

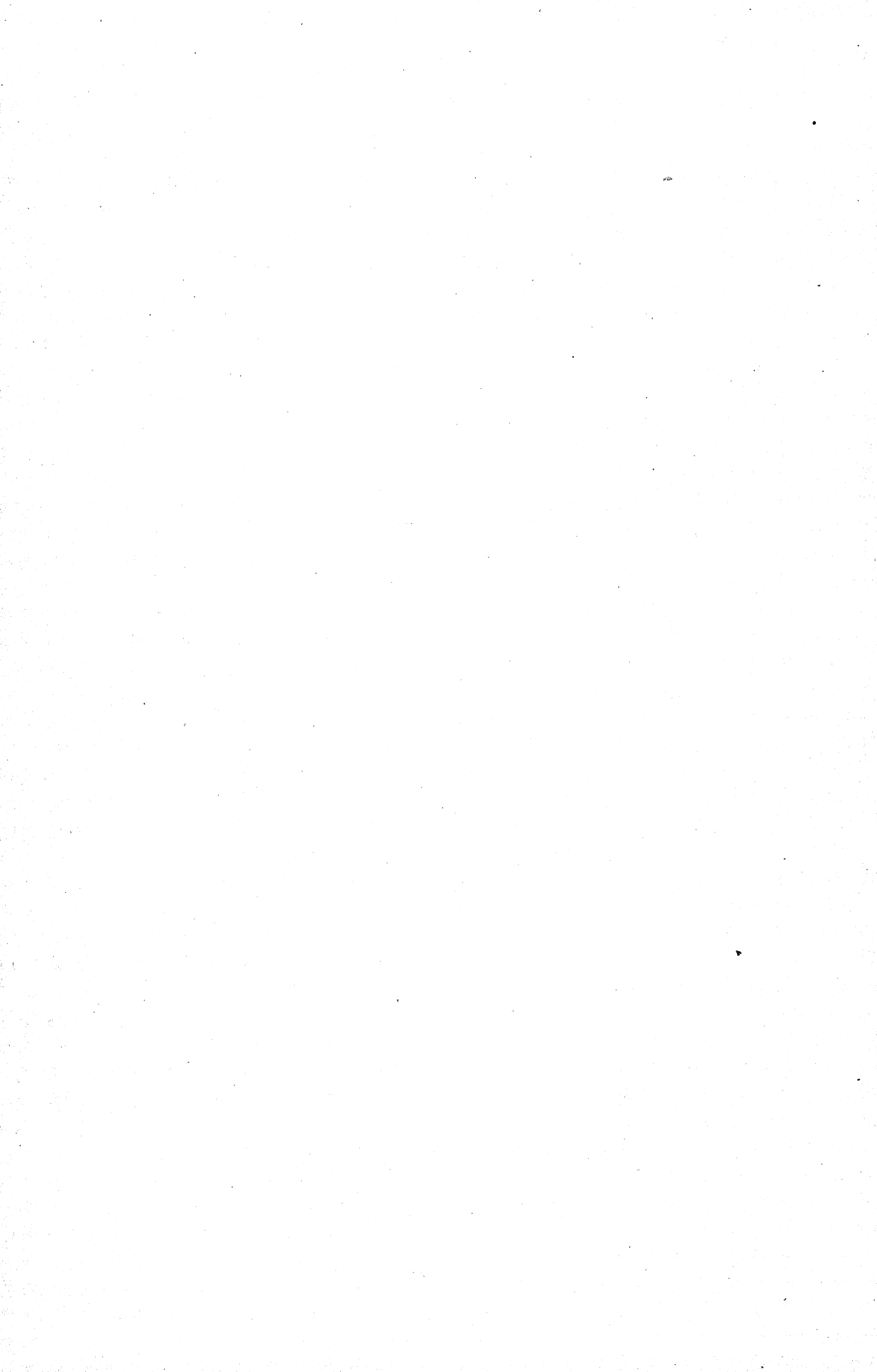
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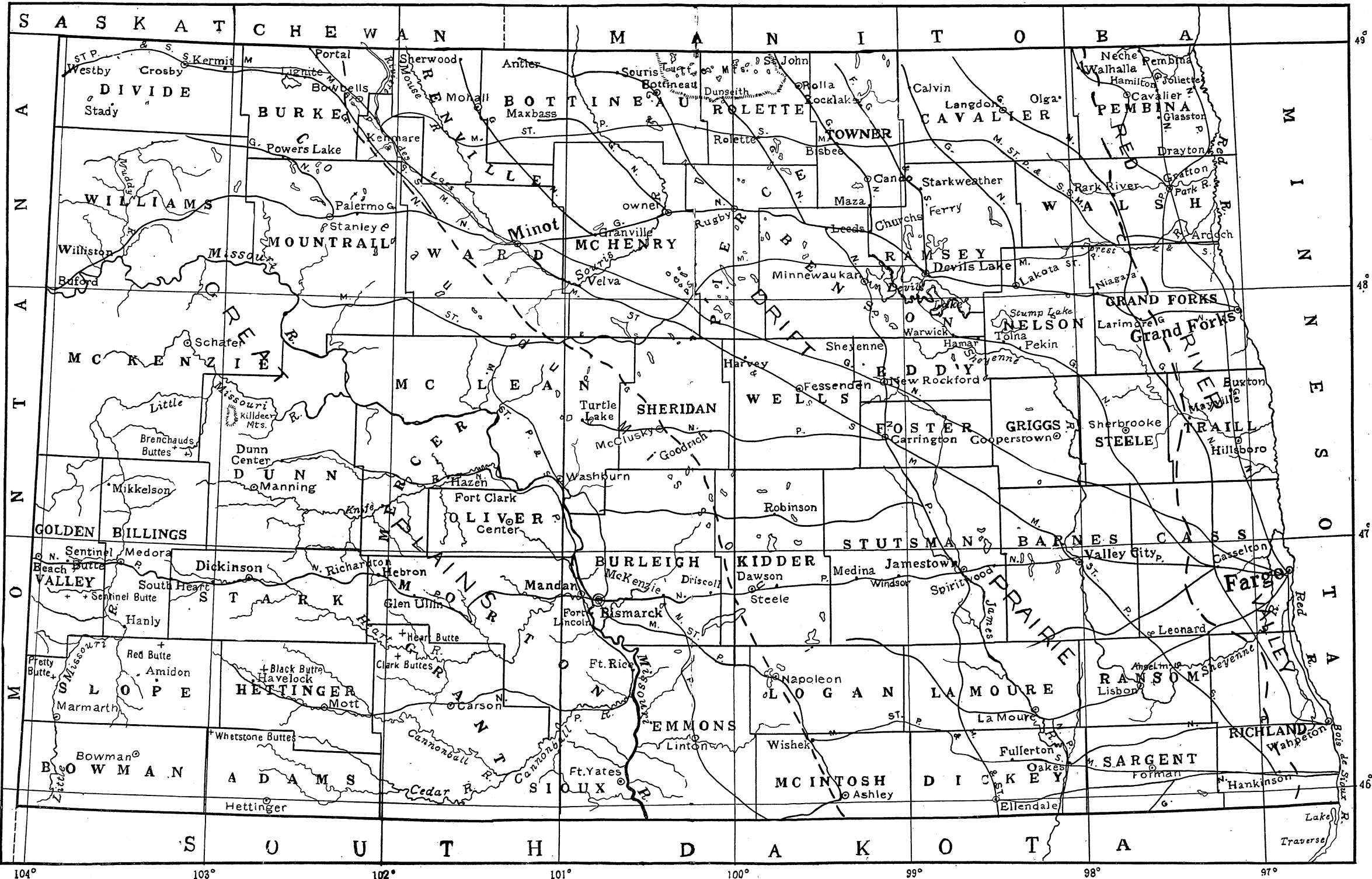
A Preliminary Survey of the Bird Life of North Dakota

BY
NORMAN A. WOOD

ANN ARBOR, MICHIGAN
PUBLISHED BY THE UNIVERSITY
JULY 2, 1923



OUTLINE MAP OF NORTH DAKOTA



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ADVERTISEMENT

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The Occasional Papers, publication of which was begun in 1913, serve as a medium for the publication of brief original papers based principally upon the collections in the Museum. The papers are issued separately to libraries and specialists, and, when a sufficient number of pages have been printed to make a volume, a title page, index, and table of contents are supplied to libraries and individuals on the mailing list for the entire series.

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ALEXANDER G. RUTHVEN,
Director of the Museum of Zoology,
University of Michigan.

A PRELIMINARY SURVEY OF THE BIRD LIFE OF NORTH DAKOTA

By NORMAN A. WOOD

The field studies upon which this paper is largely based were carried on during the summers of 1920 and 1921. The investigation was made possible through the coöperation of the State Biological Station of the University of North Dakota and the Museum of Zoology of the University of Michigan. It is a part of the program of a biological survey of the State of North Dakota, as undertaken by the State Biological Station and carried on under the direction of Crystal Thompson, Curator of the Station Museum.¹ Dr. R. T. Young, Director of the Station, has provided, through the Station, most of the funds necessary to carry on the work and has rendered every assistance in his power to make it a success. The Museum of Zoology of the University of Michigan has contributed traveling expenses to and from the field and the time of the investigator.

In 1920 work was carried on from July 12 to August 25, chiefly in the Devils-Stump Lake region, and a short trip was made to the Turtle Mountains.

In 1921 headquarters were made at the Station from May 2 until July 25. During this time several trips were made about the state. On June 1 I went to Cando, in Towner County. From here, at the invitation of Mr. Elmer T. Judd, an automobile trip was made across the county to the Canadian boundary and west into the Turtle Mountains, returning June 6 to Cando for a few days. On June 13 I went to the Bad Land country by way of Fargo and the Northern Pacific Railroad to Medora, Billings County. A few days were spent at Medora and a week at the Peaceful Valley Ranch, four miles north, owned by the Hon. Carl Olsen, who provided a trip through the Petrified Forest. On June 24 I went to Mr. William Shunk's ranch on the Sheyenne River near Anselm, Ransom County. A trip to Williston, Williams County, was made on July 5, and on July 15 another to Bottineau, Bottineau County. Here Mr. Alfred Eastgate, a noted guide and ornithologist, drove me over the prairies and up into the western part of the Turtle Mountains. July 21 to 30 was spent along the Red River at Fargo, Grand Forks, and Grafton. The collections of the Agricultural College, Fargo College, and the University were examined, and the large private collection of Mr. William Williams and his son at Grafton. Some field work was done at each of these places also. Travel of more than 2,000 miles, by rail and automobile, within the state gave much insight into the character

¹ I wish also to acknowledge the critical work of Crystal Thompson, who revised and edited this paper and to whom much credit is due for its systematic arrangement.

of the country upon which so much of its bird life depends, and the following list is the result of close observation and field work, as well as the records, published and unpublished, that I have been able to secure.

It should be understood that the list is far from complete, especially as to the distribution of species, but I hope that it may prove a basis for much future work along these lines.

ACKNOWLEDGMENTS

In compiling this list I have not only copied from the published data but have been given many valuable records by the following persons: Mr. Alfred Eastgate of Bottineau; Mr. Elmer T. Judd of Cando; Mr. William Shunk of Anselm; Mr. Metzger of Williston; Mr. D. R. Ducke of Jamestown; Mr. William Williams and Mr. Henry Williams of Grafton; Mrs. Lucia Olsen and Hon. Carl Olsen of Medora; Hon. Lewis Crawford of Sentinel Butte; Professor Daniel Freeman of Fargo; Professor C. C. Schmidt of Grand Forks; Professor R. T. Young of Grand Forks; Professor George Miller of Fargo; Mr. Russell Reid of Bismarck; Captain Lonnevik of Devils Lake; and Professor Howard Simpson of Grand Forks.

PREVIOUS WORK AND WORKERS

Although North Dakota is one of the newer states, parts of Dakota Territory have been visited since the early part of the eighteenth century by noted travellers and ornithologists. The Missouri River, since it furnished easy access to the interior of the state, was the route taken by many of them, and the frontier forts furnished favorable camping places.

The first expedition to visit the Dakota territory was that of La Verendrye, who with a party of 52 persons left Fort La Reine, below the mouth of the Assinaboine, October 18, 1738. They arrived at the Mandan Village, lat. $48^{\circ} 12'$, December 3. They remained here ten days, returning to Fort La Reine February 10, 1739. This expedition was made at a season of the year when little animal life was to be found in the region. The only animal mentioned is the bison which furnished food for the party.

The Lewis and Clark Expedition was the first scientific party to visit the region. Starting from St. Louis on May 14, 1804, they reached the 46th parallel (North Dakota) on October 15, 1804. Here they built Fort Mandan and spent the winter. Leaving the fort on April 7, 1805, they journeyed up the Missouri River to the Montana line, which they reached July 27, 1805. Many birds were observed and some were noted in the daily journals. These early North Dakota records have been placed in the state list in regular order.

Prince Maximilian of Wied visited North Dakota in 1833, going by boat from St. Louis and reaching Fort Clark on June 18, 1833. He arrived at the mouth of the Yellowstone on June 24 and spent two weeks at Fort Union. He then continued up the river to Fort MacKenzie, returning to Fort Union on September 29. Here he worked until October 30, when he returned down

the river to Fort Clark, where he spent the winter. His journals contain some notes on birds which are recorded in the list.

John J. Audubon visited the region in 1843. Leaving St. Louis, April 25, he journeyed up the Missouri River by steamboat, reaching Fort Union on June 12. At Fort Union he collected many new birds and made drawings of birds and mammals. August 16 he started with his party down the river in a forty-foot barge, "The Union," reaching St. Louis, September 19. A daily journal was kept in which he mentioned seeing many species of birds. These records have been added to the list under each species noted.

J. A. Allen, as naturalist for the Northern Pacific Railroad Exploration, worked overland from Fort Rice (June, 1873), on the Missouri, along the Heart River and across the Little Missouri into Montana. He returned in September through the same general region. His report on birds consists of several local lists and an annotated list of 118 species. This list is of exceptional importance because the observations were made before the country was broken up and settled and because this region is perhaps the least well known of any section of the state.

Dr. Elliot Coues, as ornithologist of the Hayden Survey, went by boat from Moorehead down the Red River to Pembina in the latter part of May, 1873. He collected there for nearly a month, then worked along the international boundary line to the Turtle Mountains and Mouse River, making numerous collections and notes covering 183 species of birds.

In 1895, from late March until August, a party consisting of Dr. L. B. Bishop, W. H. Hoyt, John Shaler, N. L. Bigelow, and Elmer T. Judd collected many specimens of birds in Towner and Rolette counties.

The type of the Dakota song sparrow was taken at Rock Lake, and the type of Hoyts' horned lark was collected at Cando in Towner County by Dr. Bishop, who described and named both. The notes on species taken here (some 220) were later supplemented by others made by E. S. Bryant, who collected at Dry Lake, Freshwater Lake, and Devils Lake in 1892, 1898, and 1906. Since that time Mr. Judd has added some 20 species and in 1917 published a list of 255 species.

During the last of May and the first half of June, 1901, Mr. A. C. Bent visited the Devils-Stump Lake region for data on the life histories of North American diving birds. He was accompanied by the Rev. H. K. Job and Dr. L. B. Bishop.

Mr. W. L. Stockwell, Superintendent of Public Instruction, issued, April 15, 1904, a list of birds that had been observed in the state of North Dakota. This list of 339 species, compiled by C. C. Schmidt, includes all the names of birds sent to him from all observers. It includes many species, such as the sooty tern, willet, Guadalupe wren, and Kentucky and prothonotary warblers, that are geographically almost impossible in the state.

During the summer of 1913 Mrs. Florence Merriam Bailey visited the Devils-Stump Lake region and studied its bird life, which she has graphically and beautifully described in a series of articles in *Condor*.

In 1917 Mrs. Bailey returned to Dakota and visited all of the larger lakes and many of the ponds and sloughs. The results of this trip are likewise published in *Condor*.

In April, 1919, Professor Daniel Freeman published "A Bird Calendar of the Fargo Region." This list of 180 species is the result of several years' observation by Professor Freeman and his students. Some of the species have a little data and some annotations, but the list contains few actual records.

Professor C. C. Schmidt of the University of North Dakota published in 1921 a list of the birds of North Dakota in a book entitled "Nature Study and Agriculture." This is a popular list without records or dates of occurrence for the species.

Although the task of compiling a list like the present is often tedious, it has not been an irksome one to me, as the field work on which it is based has carried me thousands of miles across the level valleys, the "Prairie Plains" and the "Great Plains" of the state. I recall the wonderful "Buttes" of the Bad Lands along the Little Missouri in "Roosevelt Land," and the big, muddy Missouri that carried the pioneer ornithologists through the state. While I have been compiling the records and notes I have been constantly reminded of the many days spent by the lakes and ponds or wandering over the big, dry prairies.

However dry the text of this list may seem, back of it is a living Dakota with its wonderful and interesting bird life, worthy of much future study by bird lovers. To these I hope this list will be a help and an inspiration.

GENERAL PHYSIOGRAPHIC FEATURES AND DISTRIBUTIONAL AREAS OF NORTH DAKOTA

While I have visited many parts of the state, my time in each one was too limited to permit me to obtain complete data on many of the species, and little has been published on this subject in the state lists. The problem of distribution is the hardest one given to the bird student, since species are not strictly confined to any one area, but are continually extending their range and passing from one area to another, as the character of the country changes. The state is divided geographically into three main areas, and the character of these areas in a great measure determines the characteristic bird life of each.

The discussion of the physiography of the state has been taken largely from "Topographic Features and Geological Formations of North Dakota," by A. G. Leonard,² and "Physiography of the Devils-Stump Lake Region, North Dakota," by Howard E. Simpson.³

The land surface included within the state may be regarded as formed of three plains rising one above the other. The lowest of these is the broad

²Third Biennial Report of State Geological Survey of North Dakota. Bismarck, 1904.

³Sixth Biennial Report of the State Geological Survey of North Dakota. Bismarck, 1912.

Red River Valley with an elevation of from 800-1000 feet. This is bordered on the west by a higher Drift Prairie Plain rising from 1,200 to 1,600 feet above the sea. Still farther west and occupying nearly one-half of the state is the elevated Coteau du Missouri with a surface which rises from 1,800 to 2,700 feet and more above sea level. The state thus represents a considerable range of relief, the lowest point in the northeastern corner being 789 feet above the sea; the highest yet determined, the summit of Sentinel Butte, over 3,100 feet.

The Red River Valley

The Red River Valley is not a true valley but an old lake plain, northward along the axis of which flows the Red River of the North. The plain is remarkable for its larger level areas and for the fertile soil-lacustrine deposits of silts and clays found on the floor of the ancient glacial-marginal lake, Lake Agassiz. The portion of the plain which lies within North Dakota has a breadth of thirty to forty miles, except at the south, where it narrows to ten miles, and an elevation of from about 800 feet at Pembina to about 975 near Wahpeton.

The boundary between the Red River Valley and the Drift-Prairie Plain is an escarpment so abrupt and rugged in the north as to receive the name of Pembina Mountain. The wooded and dissected character of the bluff accents the contrast with the old lake floor. Near the middle of the state the escarpment fades into a gentle and inconspicuous slope and becomes somewhat more marked again as the south state line is approached. Throughout the entire distance across North Dakota the escarpment bordering the Drift-Prairie Plain on the east rises 300 to 500 feet above the Red River Valley floor; in some places the slope is abrupt, in others gentle, but always it is conspicuous in this country of low relief.

The Red River seems to be the dividing line between several eastern and western species, although Coues (1878, p. 546) says: The bird fauna of this region is decidedly eastern in character, and of the Pembina region, the only western trace observed was clay-colored sparrows and Brewer's blackbird. The whip-poor-will, pileated woodpecker, crested flycatcher, phoebe, wood duck, indigo bunting, and screech owl rarely pass westward of the Red River and its valley, while of the western species, the magpie, burrowing owl, Arkansas kingbird (which Dr. Coues did not find in this valley in 1873) now are common as far east as the Red River itself. Several species that Dr. Coues found common in this valley in 1873 have now almost disappeared from the region, and one, the passenger pigeon, has become extinct here as elsewhere.

The Drift-Prairie Plain

The Drift-Prairie Plain extends from the Red River Valley escarpment on the east to the Coteau du Missouri escarpment on the west. The western escarpment runs from northwest to southeast, passing near Kenmare, Minot

and Steele. The plain varies in width from about 200 miles at the north to 100 miles at the south and has a general elevation of from 1,500 to 1,800 feet above sea level. It has a gradual, gentle slope eastward from the Coteau du Missouri and southward from the international boundary to the South Dakota line. This double slope determines the direction of the drainage and causes the main streams to take a general southeasterly course.

The topography of the plain varies from gently undulating to hilly, the differences being due almost entirely to the original disposition of unmodified glacial drift upon a nearly level plain. A few low, well-rounded hills, Sully's Hill, Devil's Heart and Blue Hills, partially concealed by drift, are remnants of older continuous formations now all but eroded away. Other less conspicuous hills are to be found stretching across the prairie in a northwest to southeast direction. The plain is cut by a few abnormally deep and well-defined valleys, such as those of the James and Sheyenne rivers. Hundreds of small lakes, marshy areas, coulees and swales dot its surface.

In marked contrast to the general topography of the plain are the Turtle Mountains and the Mouse River Valley. Each of these resembles one of the other physiographic regions of the state, and their location within the border of the Drift-Prairie Plain and their peculiar relation to one another still further emphasize the transitional character of this middle plain.

The Turtle Mountains are a rough, moraine-covered tableland lying midway on the Canadian boundary line. They have an area of 600 to 800 square miles and rise, mesa-like, 400 to 800 feet above the surrounding plain, their margin forming a gentle but conspicuous escarpment on all sides. Lakes abound, and this upland is on the whole well timbered and well watered, but poorly drained. The Turtle Mountains seem to be an isolated residuum of strata elsewhere eroded back to the Coteau du Missouri.

This comparatively small but distinct habitat, well wooded and watered, furnishes a suitable breeding habitat for several species rarely found elsewhere in the state. These are Grinnell's water thrush, Philadelphia vireo, yellow-bellied sapsucker, mourning warbler, black and white warbler, and hairy woodpecker. The sandhill crane and great blue heron, ruddy and canvas-back ducks, and the western great horned owl also breed here.

The Mouse River Valley is a glacial lake plain, similar to that of the Red River Valley, the floor of which was formerly covered by the waters of Lake Souris. This plain lies between 1,100 and 1,600 feet above sea level and drains northward through the Mouse River.

One of the most striking features of the Drift-Prairie Plain is the Devils-Stump Lake basin. The basin extends from the southern slopes of the Turtle Mountains and the Canadian boundary southward to a series of prominent hills lying between Devils and Stump lakes and the Sheyenne River. The eastern and western boundary lines are indistinct, but the area of the entire drainage basin is about 3,500 square miles. There is a gradual slope throughout the basin southward to Devils and Stump lakes. The fall is so slight that drainage is poor and small lakes and ponds abound. The coulees are few and shallow and rarely contain running water except in

wet seasons. Formerly these coulees and the chain of lakes connected by them emptied considerable water into Devils Lake through Mauvaise Coulee and by several converging coulees into both the eastern and western arms of Stump Lake. The headwaters of Mauvaise Coulee, the most important drainage line of the basin, were gathered beyond the international boundary line, and in its course southward it drained the Sweetwater chain of lakes by Lake Irvine, through which it passed, and entered Mauvaise Bay of Devils Lake as a large and permanent stream. Today no surface streams flow into either Devils Lake or Stump Lake except very minor flows during spring thaws and after excessive falls of rain. The waters of Devils and Stump lakes are decidedly alkaline, as are those of nearly all the other lakes in the general region. The notable exceptions are Sweetwater, Court, and Fort Totten lakes, which are fresh.

Devils Lake is characterized by broad, shallow and irregular bays connected by "narrows." On the north and south sides of Devils Lake, near the middle, is considerable hardwood timber. The woods come close to the lake and on the southern side are limited chiefly to the northern slopes of Sully's Hill.

This central area, the Devils-Stump Lake region, furnishes a very distinctive habitat and is occupied as a breeding ground by thousands of water-loving birds. Some of the more characteristic are the double-crested cormorant, grebes, common and black terns, Franklin's gull, white-winged scoter, pintail, redhead, goldeneye, blue-winged teal, mallard, and baldpate. The upland plover was formerly common, as is now the purple martin, tree swallow, Wilson phalarope, and belted piping plover.

South from this central area the Drift-Prairie is contracted to less than one-half of its northern width, and contains the Sheyenne and James rivers with their valleys. These different areas give a great variety of habitats and all have some characteristic breeding birds.

The Great Plains

On the western border of the Drift-Prairie Plain rises the similar and even more abrupt escarpment of the Great Plains plateau known as the Coteau du Missouri. This plateau occupies fully one-half of the state and its irregular surface varies in elevation from 1,800 to 2,700 feet above the sea. The relief is due to the effects of erosion, and only in the eastern section has the surface resulted from ice action. By far the most interesting feature of the unglaciated region is the famous Bad Lands, typically developed along the Little Missouri. The true Bad Lands, that is, the very rough areas that are difficult to travel through, are confined to the vicinity of streams. Back from these for six miles the land is a rolling plain and is not "bad."

The soft cretaceous clays and sands have been carved by running water into a multitude of steep-sided hills, isolated buttes and an endless variety of fantastic forms. The erosion is greatly facilitated by the sparseness of

vegetation, the slopes being almost bare. The rainfall in the region is light, but every shower is highly effective in washing away the clays and sands.

The Missouri River flows in a valley from one to several miles in width and 200 to 400 feet in depth. It has a broad flood plain, above which lie one or more terraces or flats, and back of these rise the bluffs. The Little Missouri, Cannon Ball, Heart and Knife rivers, chief tributaries of the Missouri, have all cut their valleys from 100 to 400 feet below the upland plain and have more or less well-developed flood plains bordered by terraces. There are frequent wooded areas along these streams.

East of the Missouri River, in the north, the characteristic species are the lark bunting, McCown's longspur, and Say's phoebe, while the southern part is much like the Drift-Prairie, as many eastern species, such as the bobolink and dickcissel, follow up the valley of the Missouri. In the Bad Lands along the Little Missouri the many buttes and high, dry plateaus furnish a barren habitat for desert horned larks, western lark sparrows, magpies, and long-billed curlews. The groves of cottonwoods along the river furnish suitable habitats for a few distinctly western species, such as Bullock's oriole, black-headed grosbeak, lazuli bunting, long-tailed chat, Arctic towhee, and the mountain bluebird. West of the Bad Lands are the high sage brush plains with their characteristic bird, the sage grouse. This is the only North Dakota breeding ground of the species.

North Dakota is a state that has developed very rapidly, and in the last twenty years there have been great changes in the character of the country, which also affects its bird life, and direct changes in the bird life as well. The breaking up of the prairies has greatly restricted the range of many characteristic species (as the long-billed curlew, upland plover, and Baird's sparrow). From various causes many lakes, ponds, and sloughs have dried up, causing a great restriction of the habitats and nesting grounds of the numerous waders and waterfowl that formerly occurred in immense numbers. Many of the most interesting species are now rare. The trumpeter swan, the sandhill and whooping cranes are no longer common and, with the upland plover and long-billed curlew, are on the way to extinction in the state. While man with his civilization drives away or destroys some species, others, the prairie hen, bobolink, dickcissel, robin, bluebird, and martin, follow and increase with the settling of the land. The cause of these changes in bird life is the rapid settlement of the country, which changes the prairies into cultivated farms, the ponds and sloughs into hay meadows or grain fields. Some waders, like the killdeer and spotted sandpiper can adapt themselves to these changed conditions and thrive and increase in the settled country; but others, like the upland plover and the long-billed curlew, cannot seem to accustom themselves to the presence of man or to occupy his fields of grain or hay, and thus are on the way to an early extinction in the state.

LIST OF SPECIES

1. *Aichmorphorus occidentalis* (Lawrence). Western Grebe.

DAVIE, 1898, p. 1; a large colony (about 200 nests) breeding at Devils Lake the first of June. JUDD, 1917, p. 5; a common breeder at Freshwater Lake, Ramsey County. BAILEY, 1918, p. 173; fifty-two at one time on Creel Bay, Devils Lake. BENT, 1919, pp. 8-9; east central North Dakota, Devils Lake region: egg dates, forty-six records, May 18 to July 9.

A specimen in the Museum of Zoology Collection was taken at Sweetwater Lake, Ramsey County, July 21, 1900, by Charles L. Cass, and a set of four eggs was taken there by him, May 23, 1900. Another set of four was taken at the lake by E. S. Bryant, May 30, 1906.

This species still breeds in many of the marshy lakes and ponds. At Devils Lake several were seen July 15, 1920, and also in May, 1921.

2. *Colymbus holbælli* (Reinhardt). Holbæll's Grebe.

JUDD, 1917, p. 5; a common migrant in the prairie region, breeding in ponds and lakes of the Turtle Mountains.

Skins of an adult male, female, and five juvenile birds in the Museum of Zoology Collection were taken at Sweetwater Lake, Ramsey County, June 13, 1900, by Charles L. Cass. The Oological Collection contains a set of six eggs, taken there May 23, 1900. The writer saw a pair with downy young at Sweetwater Lake, July 18, 1920; others at Stump Lake, July 24; at Lake Upsilon, Turtle Mountains, August 2, and several at Devils Lake, August 12. In late June, 1921, many pairs with young were seen in ponds along the Northern Pacific Railroad, and in July along the Great Northern Railroad.

The grebes are of little economic importance, since they live on fish and aquatic insects and plants to such a large extent that their flesh is not good for food.

3. *Colymbus auritus* Linnæus. Horned Grebe.

COUES, 1878, p. 657; the horned grebe was found breeding in the Red River region: on the 20th of June, 1873, a set of four newly-laid eggs was taken from one of the prairie sloughs near Pembina: newly-hatched young were in ponds about the base of Turtle Mountains the latter part of July. JUDD, 1917, p. 5; common migrant; nesting in Turtle Mountains. BENT, 1919, p. 27; egg dates, fourteen records. April 6 to July 7.

Several specimens were noted in the Turtle Mountains, July 30, 1920, and several were seen during July and August at Devils Lake. The species was seen for the first time at Devils Lake in 1921 on May 3.

4. *Colymbus nigricollis californicus* (Heermann). Eared Grebe.

BAIRD, 1858, p. 897; records specimens taken September 17, 1856, at Fort Berthold. HAYDEN, 1863, p. 176; quite rare: two specimens collected in 1856 between Fort Union and Fort Berthold. COUES, 1878, p. 657; breeding abundantly in Turtle Mountains. JUDD, 1917, p. 5; abundant summer resident: breeding in colonies in all ponds of the prairie region that retain water all summer: one colony contained forty odd nests in a small patch of grass about one rod wide by a few rods long. BENT, 1919,

p. 28; quotes Goss, 1883, who found the eared grebe breeding in communities. The first colony found was in a small lake in northern Dakota. There were twenty-five nests on an area of 10 by 20 feet, and the nests were small.

Three males in the Museum of Zoology Collection were taken at Sweetwater Lake, August 17, 1900, by Charles L. Cass. A female was taken at Stump Lake, June, 1897, by Alfred Eastgate. A set of eight eggs was collected June 11, 1900, at Sweetwater Lake, by Cass, and a set of six was taken at Devils Lake, North Dakota, May 28, 1898, by E. S. Bryant.

The species was common at Devils Lake from July 18 to August 19, 1920, and from June 8 to July 20, 1921.

5. *Podilymbus podiceps* (Linnæus). Pied-billed Grebe.

COUES, 1878, p. 658; not as common as the last two species. JUDD, 1917, p. 5; common, breeding in the deeper waters; earliest record April 27, and eggs were found hatching the first week in June. BENT, 1919, p. 40; in the North Dakota sloughs, in 1901, this species was nesting abundantly, in company with canvas-backs, redheads, ruddy ducks, and coots.

It was common on Devils Lake in 1920 and 1921.

6. *Gavia immer* (Brunnich). Loon.

JUDD, 1917, p. 5; common summer resident of the Turtle Mountains; breeding in the larger lakes. BISHOP, 1921, p. 367; describes this as a new subspecies called lesser black-billed loon. Type, adult female, No. 13235. Carpenter Lake, Rolette County, North Dakota, July 13, 1905. L. L. B., collector.

The skin of a male in the Museum of Zoology Collection was taken at Stump Lake, Nelson County, July 19, 1905, by H. A. Shaw. Another immature bird was taken at Lake Upsilon in October, 1919, by Mr. D. R. Ducke. The writer saw individuals at Lake Upsilon from July 30 to August 7, 1920, and again on June 4, 1921.

7. *Larus argentatus* Pontoppidan. Herring Gull.

SCHMIDT, 1904; all sections of the state as a migrant. SCHMIDT, 1920, p. 284; migrant and summer resident. JUDD, 1917, p. 5; a straggler during early spring migrations. FREEMAN, 1919, p. 10; observed in flight April 6 and 8; a transient visitant.

Mr. Alfred Eastgate tells me it is common in migration and breeds at Chase Lake Reserve, Stutsman County.

8. *Larus californicus* Lawrence. California Gull.

SCHMIDT, 1904; nesting in central and eastern North Dakota. JUDD, 1917, p. 5; occasionally seen in summer; one shot in June, 1895, while flying over Rock Lake, Towner County, the first positive record for this region. RIDGWAY, 1919, p. 622; breeding at Stump and Devils lakes, North Dakota. BENT, 1921, p. 131; one at Devils Lake, North Dakota, April 24.

On July 25, 1920, a few individuals were seen on the Stump Lake Bird Reserve. A large gull was seen on Devils Lake in May, 1921, which may have been the herring gull or this species.

9. *Larus delawarensis* Ord. Ring-billed Gull.

COUES, 1878, p. 655; two specimens shot from a flock on September 12, 1873, near Mouse River, Dakota. HOFFMAN, 1882, p. 404; noticed daily and usually in pairs; found a poorly mounted specimen in the Great Lodge of the Arikaras, where it was used in one of the ceremonies. RIDGWAY, 1919, p. 625; breeding at Devils Lake and Stump Lake. BENT, 1921, p. 133; on two islands of Stump Lake Bird Reserve, found breeding in colonies of about a hundred pairs in May and June, 1901. *Ibid.*, p. 140; egg dates, North Dakota, forty-eight records, May 9 to June 22; twenty-four records, May 31 to June 15.

A set of three eggs is in the Oological Collection, Museum of Zoology, which were taken at Devils Lake, North Dakota, May 17, 1892, by James R. Craegue.

A colony of this species bred at the Stump Lake Bird Reserve in 1920. At Devils Lake they were first noted in 1921 on May 10; on May 27 and June 13 a hundred or more were seen. There were a few about Devils Lake all summer, and a colony no doubt nested on a small island near Minnewaukan Bay.

10. *Larus franklini* Richardson. Franklin's Gull.

COUES, 1878, p. 655; a specimen was shot in the Turtle Mountains, July 30, 1873, but no breeding colonies were found. RIDGWAY, 1919, p. 642; breeding in the Turtle Mountains and at Devils Lake. BENT, 1921, opposite p. 171; a fine photograph of a pair on the nest, taken in North Dakota by H. K. Job.

The skin of a male, collected at Sweetwater Lake, Ramsey County, June 5, 1900, by Charles L. Cass, and a set of two eggs taken there June 8, 1896, by E. S. Bryant, are in the Museum of Zoology Collection.

An abundant summer resident of all the lake regions of the state. It breeds on the islands of both Stump and Devils lakes, where hundreds were seen each day. On July 14, 1920, more than a thousand were assembled on a stony point of Minnewaukan Bay. More than half of these were young of the year. On July 25 hundreds were seen at Stump Lake, and at Lake Irvine, July 27. On August 25 a flock of thousands was seen feeding on the prairie, undoubtedly on grasshoppers.

A small colony occupied Bird Island in Devils Lake in 1921.

This is one of the most important of the North Dakota birds. It is very abundant and annually destroys countless numbers of the most injurious insects—crickets and grasshoppers.

11. *Larus philadelphia* (Ord). Bonaparte's Gull.

JUDD, 1917, p. 6; but few stragglers seen during the spring and summer months. BAILEY, 1918, p. 27; a few of this species September 1 at Sweetwater Lake, Ramsey County.

It was not seen by the writer in July or August, 1920. At Devils Lake on June 8, 1921, a flock of about two hundred appeared, but all passed on after a few days. Many of these were still in the winter plumage.

12. *Sterna forsteri* Nuttall. Forster's Tern.

SCHMIDT, 1904; nesting in all three sections of the state. JUDD, 1917, p. 6; an occasional specimen taken.

I did not positively identify this species, although many terns were seen daily. Mr. Alfred Eastgate tells me it nested at Kavanah Lake, Ramsey County, in 1898.

13. *Sterna hirundo* Linnæus. Common Tern.

BENT, 1921, p. 133; a large colony at Stump Lake, June 15, 1901; p. 244; egg dates, North Dakota, thirty-six records, May 31 to July 15.

The skins of an adult and two young in the Museum of Zoology Collection were taken at Devils Lake, July 8, 1919, by Crystal Thompson.

This species is an abundant summer resident of the Devils and Stump lakes region and the writer visited large colonies on sandy islands in both lakes. The Devils Lake colony on July 15, 1920, contained only nests with full sets, many of them fresh. Nearly all nests of the Stump Lake colony had young, some able to fly, on July 25.

14. *Hydrochelidon nigra surinamensis* (Gmelin). Black Tern.

COUES, 1878, p. 656; a colony of this species was found breeding at Pembina in June, 1873, and others were seen later at the Mouse River. COUES, 1897, p. 39; June 18, 1843, Audubon saw a black tern which, no doubt, bred there, at Fort Union, Williams County.

A large flock, comprised of hundreds of both adults and young, was seen at Lake Upsilon from July 30 to August 7, 1920. The species was seen at Devils Lake, May 23, 1921. It is an abundant summer resident in all suitable habitats throughout the state and feeds chiefly on small fish and crustaceans.

15. *Phalacrocorax auritus auritus* (Lesson). Double-crested Cormorant.

COUES, 1878, p. 655; observed on the Red River near Pembina late in May. JUDG, 1917, p. 6; tolerably common migrant, no records of its breeding except in Devils and Stump lakes. BAILEY, 1918, p. 175; records a visit to the colony noted above on the bird rocks at Devils Lake. BENT, 1921, p. 133; visited in June, 1901, a colony of about seventy-five pairs on an island in Stump Lake.

A juvenile skin in the Museum of Zoology Collection was taken at the Devils Lake colony on July 15, 1919. This was the last year this species nested on Bird Island. Another juvenile in our collection was taken at the Stump Lake Bird Reserve, June 23, 1919. This was collected by Crystal Thompson, who also collected nests and birds for a habitat group in the Biological Station Museum at Devils Lake.

A set of two eggs collected May 30, 1896, at Sweetwater Lake, Ramsey County, by E. S. Bryant, is in the Museum of Zoological Collection.

It was a rare summer resident as late as 1918, when Crystal Thompson found a small colony nesting on Bird Island. On July 15, 1920, I counted thirty-three old nests and saw one adult bird. This colony left the lake perhaps because of the scarcity of fish and because it was disturbed by campers. On July 25, 1920, the colony on the Bird Reserve at Stump Lake was visited and thirty-five adults and young were counted. The young were nearly

full grown, but many of them were unable to fly, though they swam and dove like seals. This is the same colony visited by Bent in 1901, when it numbered 150 birds.

16. *Pelecanus erythrorhynchos* Gmelin. White Pelican.

COUES, 1878, p. 654; an old female was shot from the steamer as we neared Pembina, and I heard of one or two others shot on the Red River in May. The species was only once again observed, near Mouse River early in September. COUES, 1893, p. 172; October 18, 1804, a pelican was killed, in Emmons County, by the Lewis and Clark Expedition, and on October 19 they saw pelicans in a large pond in the same county. Maximilian records seeing large flocks of pelicans October 11, 1833, near Fort Union. THWAITES, 1906, p. 109; Fort Union, October 16, 1833, white pelicans passed in large flocks. JUDD, 1917, p. 6; common migrant, said to have been found breeding at the east end of Devils Lake. BAILEY, 1918, p. 29; records a flock of about sixty on Sweetwater Lake, Ramsey County.

In 1920 an old resident told me that many years ago a few nested at Pelican Bay, Devils Lake. Five were seen July 15, 1920, at Minnewaukan Bay. On May 10, 1921, six came into Creel Bay, and on July 19, forty were observed on a small island in Minnewaukan Bay. Residents of the central part of the state record that a few breed there.

17. *Mergus americanus* Cassin. Merganser.

JUDD, 1917, p. 6; sometimes shot by hunters in the fall; none were seen by the writer in the summer.

The Museum of the University of North Dakota has a mounted specimen labelled Bismarck. Mr. J. D. Allen, of Mandan, mounted a male sent in from Bismarck, which was taken March 7, 1921, by W. E. Cleveland.

The merganser occurs in small colonies in timber in the region of Devils Lake. A few males were seen in the Turtle Mountains. Sets of this species were completed from about May 26 to June 1, 1921. In one colony most of the eggs hatched from June 20 to 25.

18. *Mergus serrator* Linnæus. Red-breasted Merganser.

JUDD, 1917, p. 6; tolerably common fall migrant.

None were seen alive, but a fine mounted male is in the Williams Collection at Grafton, dated April 7, 1919. There is also one in the University of North Dakota Museum, labelled Devils Lake. There is a mounted male in the Williams Collection taken at Mandan, April 5, 1905, by J. D. Allen.

19. *Lophodytes cucullatus* (Linnæus). Hooded Merganser.

COUES, 1874, p. 585; breeds in North Dakota. COUES, 1878, p. 654; this is the only species of the genus actually observed. Specimens were taken at the Turtle Mountains, August 5 and 7, and at Mouse River, October 1, 1873. ALLEN, 1875, p. 68; met with near the head of Heart River about July 1, 1874, and also in September, 1874, but not seen elsewhere. JOB, 1899, p. 162; in 1890, about the first of June a pair were seen swimming in the Sheyenne River. BENT, 1901, p. 331; one shot in Steele County, June 12, 1901, and six seen in Nelson County, June 15, 1901. ABBOTT, 1916, p. 3; found one hooded merganser breeding, the only fish duck observed. JUDD, 1917, p. 7; saw one flock of young in the Big Coulee. BAILEY, 1919, p. III; saw a female hooded merganser at Sweetwater Lake. FREEMAN, 1919, p. 10; frequently seen in the Red River, May 13 to October 21.

There is a mounted male without data in the State Agricultural College. The collection of Mrs. Olsen, of Medora, contains a female skin taken on the Little Missouri River by Carl Olsen in 1920. Mr. Russell Reid informs me that on October 15, 1919, a female was shot at Bismarck, and that another was collected at Steele, Kidder County, November 2, 1921, by H. A. Sinish.

20. *Anas platyrhynchos* Linnæus. Mallard.

COUES, 1878, p. 649; flappers about a week old were seen at Pembina, June 20, 1873, on which date adult females and two young were collected. HOFFMAN, 1882, p. 404; saw flocks upon the ponds, but the species was not common at any time in September. COUES, 1893, p. 275; April 16, Lewis and Clark saw many mallards on some small creeks (in Mountrail County). COUES, 1897, p. 112; July 24, 1843, Mrs. Culbertson gave Audubon six young mallards which she had caught by swimming for them in the Missouri River at Fort Union. BENT, 1901, Pl. IV; photograph of nest and ten fresh eggs from Stump Lake, Nelson County, May 31, 1901. JUDD, 1917, p. 7; a set of eggs taken from a stack of wheat, twelve feet from the ground.

There are mounted specimens in all of the state collections and an adult male in the Olsen Collection taken at Medora, October, 1919.

An abundant summer resident, nesting in all suitable habitats. On July 15, 1920, a nest with twelve eggs was found out on the prairie, far from any large body of water.

This species is of much economic importance. It furnishes sport and much valuable food.

21. *Anas rubripes* Brewster. Black Duck.

COUES, 1897, p. 155; August 21, 1843, Audubon saw many old and young black mallards (near the mouth of the Little Missouri). JUDD, 1917, p. 7; Alfred Eastgate, of Stump Lake, and ex-State Auditor H. L. Holmes, of Bathgate, have each a mounted specimen.

The species is of very rare occurrence in North Dakota.

22. *Chaulelasmus streperus* (Linnæus). Gadwall.

COUES, 1878, p. 650; abundant in the Turtle Mountains, August 5, 1873. COUES, 1897, p. 107; July 21, 1843, Audubon saw a single gadwall duck. These birds are found in abundance on the plains where water and rushes are present: p. 155; August 21, saw many young and old gadwalls (near the mouth of the Little Missouri River). BENT, 1901, Pl. V, No. 1, Pl. IV, No. 2, photograph of two nests found at Stump Lake, June 15. REED, 1904, p. 71; records a set of eight eggs collected June 19, 1898, on a low island in Devils Lake, Benson County, North Dakota, by E. S. Rolfe.

A skin in the Museum of Zoology Collection was taken at Minot, October 5, 1910, by Robert P. Stark, and another, an adult male, was taken at Grafton, Walsh County, May 6, 1913, by Henry Williams.

Many broods of young were seen at Devils Lake from July 15 to August 7, 1920, and at Stump Lake, July 25, 1920. It is a common summer resident, nesting in thick grass about the larger ponds and lakes.

23. *Mareca americana* (Gmelin). Baldpate.

COUES, 1878, p. 650; abundant breeder; young, still unable to fly, were found until the middle of September. JOB, 1899, p. 164; on June 27, 1898, found twenty nests of the baldpate on the islands of the Stump Lake Bird Reserve. BENT, 1901,

Pl. V, Fig. 2; Pl. VI, Figs. 1 and 2, p. 336; photograph of three nests at Stump Lake, Nelson County, June 15, 1901. REED, 1904, p. 72; a set of eggs from Lac aux Morte, Ramsey County, collected by E. S. Bryant. JUDD, 1917, p. 7; arriving middle of April.

A not uncommon summer resident, nesting about the ponds and lakes. Many broods of young were seen from July 15 to August 24, 1920, at Devils and Stump lakes.

24. *Nettion carolinense* (Gmelin). Green-winged Teal.

ALLEN, 1875, p. 67; a few pairs met with during the breeding season and a few small flocks seen in September. COUES, 1878, p. 650; thousands enter the country from the north in August; found no nests, but probably a few bred. HOFFMAN, 1882, p. 404; frequent occurrence at Fort Berthold, McLean County, September. JUDD, 1893, p. 382; May 4, shot a green-winged teal near Cando, Towner County. JOB, 1899, p. 163; met the green-winged teal on two occasions in Steele County, May 11, 1898, and on June 20 at Rolla, Rolette County, near the Turtle Mountains, found a female and her brood of eight young. BENT, 1902, p. 1; near Rolla on June 20, 1898, Mr. H. K. Job found a female and eight juveniles. JUDD, 1917, p. 7; a few pairs nest each season, but it is a rare breeder. FREEMAN, 1919, p. 10; fairly common both spring and fall. BAILEY, 1920, p. 69; at Island Lake two beautiful green-winged teal were brought in.

I saw very few at Devils Lake from May to August, but at Odessa Narrows there were two females with broods of young on July 23, 1920. One female and a juvenile bird were taken for the record.

25. *Querquedula discors* (Linnæus). Blue-winged Teal.

COUES, 1878, p. 651; very abundant in August. One taken August 22, 1873, Mouse River. HOFFMAN, 1882, p. 404; rather common at Fort Berthold in September. COUES, 1893, p. 275; April 16, 1805, Lewis and Clark report seeing blue-winged teal in some small creeks, Mountrail County. COUES, 1897, p. 176; August 2, 1843, Bell saw young blue-winged teal in a pond in the first prairie near Fort Union. BENT, 1902, p. 2; found a nest and ten fresh eggs June 12, 1901, on Goose River, Steele County.

There is a male at Mandan taken June 19, 1921, and there are mounted birds in all of the state collections. An adult bird taken August 12, and an immature one taken August 15, 1900, at Sweetwater Lake by Charles L. Cass, are in the Museum of Zoology Collection.

This is the most common breeding duck of North Dakota, nesting all over the state where there is water. A nest with eight fresh eggs was found in tall grass at the side of a road on July 18, 1920, and broods of young were seen on the lakes from June to August.

The species is of much economic importance, because of its great abundance, and also its use for sport and food.

26. *Querquedula cyanoptera* (Vieillot). Cinnamon Teal.

There is an adult male in the Williams Collection at Grafton, taken at Mandan, October 10, 1902, by J. D. Allen. The Agricultural College Collection contains a male taken at Maza, Towner County, in 1901, by W. L. Murray.

This must be considered a straggler or an accidental visitor only.

27. *Spatula clypeata* (Linnæus). Shoveller.

ALLEN, 1875, p. 68; two or three shot near the head of Heart River in September, 1873; no others observed. BENT, 1902, Pl. II, Fig. 1; photograph of nest and eleven eggs taken in Steele County, June 7. REED, 1904, p. 73; records a set of ten eggs, collected on Graham's Island, Devils Lake, by E. S. Bryant, May 28, 1899. JUDD, 1917, p. 7; this species arrives about April 15, nesting in May.

The Museum of Zoology Collection contains three skins taken at Sweet-water Lake by Charles L. Cass: a female June 13, another June 14, and a male June 27, 1900.

This is a very common summer resident, nesting in thick grass not far from water.

28. *Dafila acuta* (Linnæus). Pintail.

COUES, 1878, p. 650; two specimens taken June 20, 1873, at Pembina. BENT, 1902, Pl. II, Fig. 2; photograph of nest and eight eggs found in Steele County, June 10. REED, 1904, p. 73; set of ten eggs from Graham's Island, Devils Lake, June 15, 1900, collected by E. S. Bryant. FREEMAN, 1919, p. 10; a Fargo record of March 17.

Many adults and young were seen at most of the lakes visited. On July 14, 1920, a female with nearly full-grown young was seen at Devils Lake.

This is one of the earliest migrant ducks, and is a common summer resident, nesting in old stubblefields and on the prairie often far from any water. An important economic species.

29. *Aix sponsa* (Linnæus). Wood Duck.

ALLEN, 1875, p. 68; more or less frequent on the Missouri near Fort Abraham Lincoln and Fort Rice, June, 1873, but was not met with elsewhere. BAIRD, 1858, p. 786; one in the National Museum Collection, taken at Heart River, September 22, 1856, by Dr. Hayden. HOFFMAN, 1882, p. 404; common at certain seasons of the year. A single male seen in the possession of an Indian. JOB, 1899, p. 162; noted but once, a male in the Goose River. JUDD, 1917, p. 8; I know of but one specimen taken here. A male in moulting plumage was shot in August on Rock Lake. FREEMAN, 1919, p. 10; uncommon, May 14.

There are two mounted males in the Fargo College Collection with no data; one in the Agricultural College Collection with no data; one in the University of North Dakota from Pembina County; and one in the Williams Collection taken at Grafton, May 8, 1908. This is a very rare duck in North Dakota.

30. *Marila americana* (Eyton). Redhead.

JOB, 1899, p. 165; found redhead eggs in a canvas-back nest. BENT, 1902, Pl. III, Figs. 1 and 2; a nest taken in Steele County, June 10, 1901.

There is a male in the Museum of Zoology Collection taken at Sweet-water Lake, September 14, 1900, by Charles L. Cass. This species was seen frequently on Devils and Stump lakes from May to August. Adults and young were noted in the Turtle Mountains on August 5, 1920. It is not a rare summer resident, nesting only on the larger lakes, in grass and rushes that grow in from one to three feet of water. It is one of the most important ducks for sport and food.

31. *Marila valisineria* (Wilson). Canvas-back.

COUES, 1878, p. 652; Turtle Mountains in July, 1873. JOB, 1899, p. 164; eleven pairs in one slough on May 21, 1898. BENT, 1902, Pl. IV, Figs. 1 and 2; photographs of nest, taken in Steele County, June 8. BAILEY, 1919, p. 189; saw a female with nine nearly grown young on Sweetwater Lake, Ramsey County.

There is a skin of a female in the Museum of Zoology Collection, taken at Sweetwater Lake, September 14, 1900, by Charles L. Cass, and a set of twenty eggs collected there by him, June 13, 1900. Another female in the Museum of Zoology Collection was taken on May 18, 1913, at Stump Lake, by H. V. Williams.

A few females were seen at Devils Lake in August, 1920, two broods at Sweetwater Lake on July 18, 1920, and others at the Turtle Mountains, August 5 and 7, 1920.

It is rather a rare summer resident, breeding in the grass and rushes of the water holes and coulees. It is considered superior to all other species for food, but has been much over-rated, as it is no better than the redhead.

32. *Marila marila* (Linnæus). Scaup Duck.

JOB, 1899, p. 163; considerable numbers in a large, reedy slough not far from Devils Lake in May and June. JUDD, 1917, p. 8; a common migrant.

The species was seen only rarely at Devils Lake in May, 1921.

33. *Marila affinis* (Eyton). Lesser Scaup Duck.

BENT, 1902, p. 165; the center of its abundance seems to be the Devils Lake region, but it was also found in Nelson and Steele counties. JUDD, 1917, p. 8; first nests found about June 15.

A common summer resident, nesting in all the larger lakes and sloughs. This duck was very common on Devils Lake in May and June, 1921, but the only nest known to me was found near Bluebill Lake, Turtle Mountains, on August 5, 1920. It was in a low meadow, a third of a mile from the water, and contained eight eggs, nearly ready to hatch.

34. *Marila collaris* (Donovan). Ring-necked Duck.

COUES, 1878, p. 651; a specimen was seen in Dawson's Collection. BENT, 1902, p. 167; Mr. Job found a nest of the ring-necked duck in the Turtle Mountains, June 14, 1898. Dr. Bishop flushed two or three ducks from their nests in Nelson County in 1901, which he supposed to be ring-necked ducks, but none were taken. JUDD, 1917, p. 8; one pair seen in Big Coulee. Found breeding in the Turtle Mountains.

There is a mounted male in the Williams Collection taken at Grafton, April 20, 1903.

This is a rare summer resident. A pair was seen at Devils Lake, July 13, 1920.

35. *Clangula clangula americana* Bonaparte. Golden-eye.

BRYANT, 1894, p. 183; a nest of ten eggs and one of thirteen at Devils Lake in 1892. Both nests were in elm trees, one fifteen feet and the other twenty-five feet from the ground. JOB, 1899, p. 164; breeding in small colonies in the timber region of Devils Lake. BENT, 1902, p. 169; on June 1, 1901, found five nests of the American golden-eye in hollow trees at Devils Lake. JUDD, 1917, p. 8; found it breeding in the Turtle Mountains.

This is a rather rare summer resident, nesting in the wooded region about Devils and Stump lakes, and also in the Turtle Mountains. On May 15, 1921, a nest was found in the oak woods on the west side of Creel Bay, and on May 20, 1921, there was another in a cavity of an old oak tree on the Rock Island Military Reservation. This nest was only fifteen feet above the ground and contained seven fresh eggs. On July 2, 1921, an adult female with twelve small young were swimming about on Minnewaukan Bay.

36. *Charitonetta albeola* (Linnæus). Buffle-head.

COUES, 1878, p. 653; among the commonest species after the fall migration, and probably nests in Northern Dakota, as at Turtle Mountains young birds were found in July, 1873.

A pair was seen at Devils Lake, May 10, 1921.

37. *Harelda hyemalis* (Linnæus). Old-squaw.

JUDD, 1917, p. 9; E. S. Bryant claims to have found one dead on the northwest shore of Devils Lake.

The only specimens seen by the writer were a pair in the Agricultural College Museum, taken at Grafton, September 10, 1918, and Mr. Henry Williams reports that they are very rare in North Dakota.

38. *Histrionicus histrionicus* (Linnæus). Harlequin Duck.

OBERHOLSER, 1919, p. 26; records a specimen, which he refers to the Pacific form, *Histrionicus h. pacificus*.

This specimen, a mounted male, taken on the Missouri River at Mandan, September 23, 1912, by J. D. Allen, is in the Williams Collection.

39. *Oidemia americana* (Swainson). Scoter.

This species must be considered as a very rare straggler in North Dakota, and only one record is known to the writer. Mr. Henry Williams reports a male taken at Stump Lake, Nelson County, September 17, 1922.

40. *Oidemia deglandi* Bonaparte. White-winged Scoter.

JOB, 1899, p. 163; June 27, 1898, found eight nests on group of small islands in Stump Lake, which contained fourteen, thirteen, ten, ten, seven, six, one, and no eggs. The last was a new nest ready for eggs. This shows that the bird is a very late breeder. BENT, 1902, p. 171: one nest on June 15, 1901, contained five eggs; another, also on Stump Lake Bird Reserve, on June 22, contained twelve eggs. BAILEY, 1916, p. 55; eight birds at Stump Lake, June 28, 1913. JUDD, 1917, p. 9; straggler to our lakes and ponds; a summer resident on Devils and Stump lakes. BAILEY, 1918, pp. 25 and 26; records two from Sweetwater Lake, Ramsey County, and half-grown young there late in August, 1917.

The species was observed at Devils Lake on August 15, 1920. It was first noted in 1921 on May 25; on May 31 ten birds were seen on the lake. Dr. R. T. Young and the writer found a nest with twelve eggs almost ready to hatch at Stump Lake, July 25, 1920. This nest was built in a thicket of gooseberry bushes on the highest point of one of the islands of the Bird Reserve. The female was very tame and fluttered only a few feet away from the nest.

Devils and Stump lakes seem to be the most southern breeding grounds of the species and the only region in the United States where nests have been found.

41. *Erismatura jamaicensis* (Gmelin). Ruddy Duck.

COUES, 1878, p. 654; common and breeding in suitable localities throughout the region. At the Turtle Mountains it was nesting in numbers in the pools where the young in late July and early August were still unable to fly. Several were taken there, July 28 to 30 and August 7, 1873. JOB, 1899, p. 164; in one slough on May 21, 1898, numerous ruddies in pairs were swimming among the reeds. BENT, 1902, p. 172; found five nests of the ruddy duck in two sloughs in Steele County in June, 1901. JUDD, 1917, p. 9; very common; breed on all the big lakes, where they arrive the latter part of April.

There is a skin of an adult female in the Museum of Zoology Collection taken June 25, 1900, at Sweetwater Lake, by Charles L. Cass, and there are mounted specimens in several bird collections in North Dakota.

Several individuals were seen at Stump Lake, July 24 and 25, 1920, and a few at Lake Upsilon, Turtle Mountains, July 30, 1920. They were noted at Devils Lake from May 5 to July 19, 1921.

42. *Chen hyperboreus hyperboreus* (Pallas). Snow Goose.

COUES, 1878, p. 649; abundant during migrations. In the fall none were seen until October. JUDD, 1891, p. 169; snow geese were most abundant after October 17, 1890, near Cando. COUES, 1893, p. 263; Lewis and Clark reported that a great number of brant passed up the river, April 9, 1805, some of which were perfectly white except the large wing feathers. (Coues says these were snow geese.) JUDD, 1917, p. 9; flocks of thousands are a common sight from the last week in March to May 1 and a few small flocks stay until June 1. The big flight in the fall occurs about October 10, but some stay until the lakes freeze over. BAILEY, 1920, p. 106; saw a snow goose the last of September at Sweetwater Lake.

I did not see this species alive. There is a mounted specimen in the University of North Dakota Museum, taken at Devils Lake, and also one at the Agricultural College. Another specimen was taken at Bismarck, November 11, 1921, by E. J. Erbe.

43. *Chen hyperboreus nivalis* (J. R. Forster). Greater Snow Goose.

JUDD, 1917, p. 9; specimens whose size would apply to this subspecies are shot at all times from the large flocks of the lesser snow goose.

There is a specimen without data in the University of North Dakota Museum. Another, taken at Grafton, April 13, 1907, was seen in the Williams Collection.

44. *Chen caerulescens* (Linnæus). Blue Goose.

JUDD, 1893, p. 382; on May 4, shot a blue goose near Cando, Towner County. JUDD, 1917, p. 9; rare in migration; one to four are usually seen in nearly every large flock of snow geese. FREEMAN, 1919, p. 11; observed fairly often; date March 24.

There is a specimen in the Agricultural College Museum collected at Grafton, October 27, 1913, by H. V. Williams. Another was taken from a large flock at Grafton, March 30, 1906, by William Williams.

45. *Chen rossi* (Cassin). Ross's Goose.

JUDD, 1917, p. 9; one shot April 22, 1893. Heard of others being seen, but none came to notice.

I have been able to find no other record of this species in the state.

46. *Anser albifrons gambeli* Hartlaub. White-fronted Goose.

JUDD, 1891, p. 169; some shot near Cando, October, 1890.

There is a mounted bird in the Williams Collection which was taken at Grafton, April 4, 1906. None were observed during the field work.

47. *Branta canadensis canadensis* (Linnæus). Canada Goose.

COUES, 1878, p. 649; saw several broods of goslings on the Missouri River in June, 1874. HOFFMAN, 1882, p. 404; immense numbers were observed throughout September at Fort Berthold, McLean County. COUES, 1893, pp. 192, 250, 269, 270; Lewis and Clark reported large flocks of geese and brant passing south at Fort Mandan, November 10, 1894. On March 31, 1805, several flocks of geese, the first ones seen, flew up. By April 10 the geese were feeding near Fort Berthold. On April 13 a lake and adjoining creek flowing into the river were named Goose Lake and Goose Creek, because of the large number of geese feeding on them. They built their nests in the tops of the lofty cottonwood trees. Coues says these were Canada geese, and he confirmed the above statement when he passed this point in the river in 1874. COUES, 1897, p. 7; Audubon saw geese and goslings near the mouth of the Cannonball River, Morton County, June 5, 1843. BENT, 1902, pp. 173, 174; reports quite a number of Canada geese breeding in North Dakota. Found one nest on June 2, 1901, in a large slough in Nelson County; another which the young had left on June 10, in Steel County. REED, 1904, p. 84; records a set of five eggs from Ellingers Lake, May 18, 1896, collected by Edwin S. Bryant. JUDD, 1917, p. 9; common breeder, noted as early as March 8 and as late as November 20.

At present this might be considered a rare breeder in the state. Captain Lonnevik, of the Rock Island Military Reservation, says that it is still nesting at Sweetwater Lake. On August 12, 1920, a family of five were seen on Devils Lake. A small flock flew over Devils Lake May 4, 1921.

48. *Branta canadensis hutchinsi* (Richardson). Hutchins's Goose.

JUDD, 1892, p. 314; saw this species near Cando. JUDD, 1917, p. 9; common migrants, which usually feed by themselves in flocks of ten to fifteen.

A mounted specimen taken at Sweetwater Lake, Ramsey County, October 10, 1915, is in the Williams Collection.

The species seems to be rather rare in the state.

49. *Branta canadensis minima* Ridgway. Cackling Goose.

JUDD, 1917, p. 9; two specimens shot in 1894 and one in 1895, by Dr. L. B. Bishop, were assigned to this subspecies.

A mounted specimen is in the Museum of Zoology Collection, labelled Sweetwater Lake, October 10, 1915.

50. *Branta nigricans* (Lawrence). Black Brant.

The species has not been recorded in lists of North Dakota birds. The only specimen seen was an immature bird in the Williams Collection. It was taken at Lakota, Nelson County, October 26, 1917.

51. *Olor columbianus* (Ord). Whistling Swan.

COUES, 1897, p. 5; Audubon says on June 5, 1843, he saw two swans light on the prairie near the mouth of the Cannonball River: p. 10; saw two on June 8 near Mandan: p. 154; on August 17 saw twenty-two swans near Fort Union. JUDD, 1917, p. 9; one specimen was brought in in the fall of 1894.

There is a mounted specimen in the Biological Station Museum taken at Stump Lake by Alfred Eastgate, and one in the University of North Dakota Museum taken at Devils Lake. According to residents, they occur during migration at the lakes. Mr. Allen, of Mandan, mounted two birds from Fullerton, Dickey County, taken October 20, 1921, by George Paulson.

52. *Olor buccinator* (Richardson). Trumpeter Swan.

HAYDEN, 1863, p. 175; seen at certain seasons of the year in large flocks throughout the northwest. A few breed in the valley of the Yellowstone. COUES, 1878, p. 648; observed on a few occasions in Dakota late in September and the first half of October during the migration. It appears to pass chiefly at night. JUDD, 1893, p. 382; not uncommon in migration. JUDD, 1917, p. 11; tolerably common migrant as early as April 13 and the latter half of October. They seldom fly in greater numbers than four to six.

In the museum at the University of North Dakota is a specimen labelled Stump Lake, North Dakota, A. J. Hutchins. This bird stood by the side of a whistling swan and was much larger and taller; its wing measured twenty-six and a half inches and it had twenty-two tail feathers, while the other swans in the collection had each twenty tail feathers and wings from twenty to twenty-one and a half inches. A trumpeter swan (No. 17779) in the collection of H. K. Coale is labelled North Dakota, November, 1891.⁴ Mr. Alfred Eastgate told the writer that it bred at Rock Lake, Towner County, in 1895. No live birds were seen.

53. *Plegadis guarauna* (Linnæus). White-faced Glossy Ibis.

The only records found are a specimen in the Museum of Zoology, labelled North Dakota, 1882, and a mounted specimen in the Agricultural College Museum, taken at Mandan by J. D. Allen in 1912. Mr. Williams told me he saw a bird of this species at Amidon, Slope County, in May, 1920.

54. *Mycteria americana* Linnæus. Wood Ibis.

Mr. Williams, of Grafton, mounted a bird of this species in the spring of 1900. It was taken in a big slough east of Glasston, Pembina County.

55. *Botaurus lentiginosus* (Montagu). Bittern.

COUES, 1878, p. 646; rather common on Mouse River in September, 1873. One was taken on September 2, another September 8. JUDD, 1917, p. 11; very common.

Small numbers were seen in nearly all of the regions visited. There is a specimen in the Museum of Zoology labelled Devils Lake, 1900, Charles L. Cass.

56. *Ixobrychus exilis* (Gmelin). Least Bittern.

JUDD, 1917, p. 11; two seen by Mr. Bishop at Rock Lake, June 20, 1895. Also reported from Devils Lake.

⁴ *Auk*, 1915, Vol. XXXII, pp. 84-85.

No living specimens were seen, but there is a mounted bird in the Agricultural College Museum at Fargo with no data.

Mr. Williams, of Grafton, says it is very rare and he has seen but one, near Glasston, Pembina County, during the past twenty-five years.

57. *Ixobrychus neoxenus* (Cory). Cory's Least Bittern.

Mr. Alfred Eastgate is authority for a record of this form, at Graham's Island, Devils Lake, 1904.

58. *Ardea herodias herodias* Linnæus. Great Blue Heron.

COUES, 1878, p. 646; observed during passage down the Red River in 1873. ALLEN, 1875, p. 67; a single specimen seen on Heart River, the only representative of the family noted on the journey. HOFFMAN, 1882, p. 403; singly or in pairs this species occurs along the Missouri River during the early portion of September; none noticed after the tenth. JUDD, 1917, p. 11; rare; only now and then seen in recent years; breeds in the Turtle Mountains.

The species seems to be quite uncommon in the state. There is a mounted specimen in the Biological Station Museum probably taken near Devils Lake. The Williams Collection contains one labelled Grafton, September 30, 1920. One in the Olsen Collection was collected at Medora in the summer of 1920. On August 2 and August 4, 1920, a family of four were seen at Lake Upsilon, Turtle Mountains.

59. *Nycticorax nycticorax naevius* (Boddaert). Black-crowned Night Heron.

COUES, 1878, p. 646; one individual seen during the passage down the Red River, in 1873. BRYANT, 1894, p. 183; colony at Lake Alice, Ramsey County, in the spring of 1892. JUDD, 1917, p. 11; tolerably common, breed in colonies in trees about Lake Alice, also in heavy grass sloughs and thick bushes at Rock Lake. Earliest arrivals, April 13.

A set of six eggs in the Museum of Zoology Collection was taken at Sweetwater Lake, Ramsey County, on May 31, 1896, by E. S. Bryant.

They were not rare about Twin Lakes, Ramsey County, August 18, 1920, and later were seen at Devils Lake and a small mud pond on the Rock Island Military Reservation.

60. *Grus americana* (Linnæus). Whooping Crane.

COUES, 1878, p. 646; white cranes were frequently observed in the Mouse River country in August, September, and October, but always at a distance; there is no reason to doubt that they breed there. ABBOTT, 1880, p. 984; a flock of three were met July 6, 1879, near Pembina. HOFFMAN, 1882, p. 404; frequently seen flying northward about the middle of September at Fort Berthold, McLean County, North Dakota. JUDD, 1891, p. 169; saw white cranes October 5, 1890, near Cando. COUES, 1893, p. 267; April 11, 1805, Lewis and Clark record seeing some cranes, the largest bird of that kind common to the Missouri and Mississippi, perfectly white, except the large feathers on the first joint of the wing, which are black, just above the mouth of the Little Missouri River in McLean County. THWAITES, 1906, p. 183; on September 22, 1833, Maximilian saw a small flock of whooping cranes near Fort Union. JUDD, 1917, p. 11; tolerably common migrant, probably nests in the Turtle Mountains; earliest arrivals, April 13.

Mr. Russell Reid, of Bismarck, reports one shot near Leroy, Pembina County, fall of 1919; two small flocks seen at Bismarck, one September 16, 1920, and the other April 8, 1922.

There are several mounted birds in the state; one in the University of North Dakota Collection, taken in Cavalier County; one in the Williams Collection, taken at Lakota, Nelson County, in 1919; two in the Agricultural College Collection, with no data; one in the collection of Clarence Hale, shot at Glasston, Pembina County, in 1899. Mr. Williams furnished the data for a specimen taken by W. R. Ross at Calvin, Cavalier County, April 20, 1907; one at Sherwood, Renville County, by A. J. Clark, September 19, 1908, and one at Hamilton, Pembina County, by D. D. Warren, April 12, 1912.

Mr. Alfred Eastgate tells me that the species bred commonly until 1908 in Nelson County.

A flock of seven whooping cranes was seen from the car window, standing at the edge of a small pond near the track, just east of Medina, Stutsman County, on June 24, 1921. They flew up as the train passed, making a great spread of black and white plumage.

61. *Grus canadensis* (Linnæus). Little Brown Crane.

ALLEN, 1875, p. 67; large flock seen at the crossing of the Little Missouri, September 15, 1873, circling high in the air over the camp; the only time the species was observed. (Allen noted this under the species *canadensis*, but these birds may have been *mexicana*.) JUDD, 1917, p. 11; one pair shot out of a flock of ten or twelve, April 18, 1895, now in the collection of H. L. Bigelow, Boston, Massachusetts.

There is a specimen in the Williams Collection taken near Grafton, September 30, 1920. In the Agricultural College Museum is an individual from Custer Flats, 1912, and in the Fargo College Collection is one from Goodrich, Sheridan County, 1909.

62. *Grus mexicana* (Müller). Sandhill Crane.

CULBERTSON, 1851, p. 118; "June 13 one of the pilots brought me a very young sandhill crane, which I put in alcohol, and I intend preserving the skeleton of a larger one, which was not in a condition to skin." (Missouri River, between Forts Clark and Berthold.) COUES, 1878, p. 646; commonly observed after leaving Pembina; it appears to breed over the whole region in prairie country. HOFFMAN, 1882, p. 404; more frequently seen than the whooping crane. JUDD, 1891, p. 169; saw sandhill cranes near Cando, October 5, 1890. COUES, 1897, p. 9; Audubon saw a young sandhill crane near Heart River, Morton County, on June 6, 1843; p. 95; on July 16 there was a sandhill crane about two years old in a grassy bottom near Fort Union. THWAITES, 1905, p. 199; October 16, 1833, Maximilian records large flocks of cranes passing the boat near Fort Union. JUDD, 1917, p. 11; common, breeds in Towner County in isolated sloughs that contain more or less water. The fall flights are often very large and in some localities they do some damage to grain, earliest migrants noted April 6 and a full set of eggs June 9. BAILEY, 1920, p. 67; the most notable bird found in the Turtle Mountains was a sandhill crane.

This species was not seen alive. There are mounted specimens in the state collections, and J. D. Allen, of Mandan, mounted one from Steele, Kidder County, taken October 6, 1921, by M. Hogue. Mr. Russell Reid says it does not seem to be rare during migrations: on April 16, 1921, eight large flocks were seen, about five hundred birds in all. Residents told me there were a few still breeding in the big sloughs, that more were seen in migration, but they are no longer a very common species. Formerly

they were of some economic importance, furnishing sport and food for hunters.

63. *Rallus elegans* Audubon. King Rail.

JUDD, 1917, p. 11; Bryant claims to have seen one at Freshwater Lake.

There is a specimen without data in the Agricultural College Museum. This was the only bird seen.

64. *Rallus virginianus* Linnæus. Virginia Rail.

ALLEN, 1875, p. 67; met with once or twice in June, 1873, near the Heart River. BENT, 1901, p. 330; Virginia rails nested in short grass about the edges of sloughs. JUDD, 1917, p. 11; not common and noted only in fall migrations. FREEMAN, 1919, p. 11; has photographs of individuals found in Island Park at Fargo.

The species was not seen in the field. There is a specimen in the Agricultural College Collection taken at Grafton, June 3, 1910, by Henry Williams.

65. *Porzana carolina* (Linnæus). Sora.

COUES, 1878, p. 647; observed during the migration in September along the Mouse River. BENT, 1901, p. 330; nested in short grass about edges of sloughs. JUDD, 1917, p. 11; very common, nearly every slough containing water in June has a pair or more nesting. BAILEY, 1918, p. 67; common in the sloughs about Sweetwater Lake. FREEMAN, 1919, p. 11; very common, May 14.

The species is more often heard than seen. One was observed at Dry Lake, Ramsey County, July 18, 1920, and one at Stump Lake, July 25, 1920.

66. *Coturnicops noveboracensis* (Gmelin). Yellow Rail.

REED, 1904, p. 105; set of ten eggs collected June 4, 1901, in Benson County, by Rev. P. B. Peabody. ABBOTT, 1916, No. 94, p. 4; "Resting against a boulder, reveling in the prolonged sunset, a metallic 'click' penetrates the verdure directly in front. The author has several imitators. The birds are ventriloquists and you can't disturb nor dislodge them. Take two stones the size of black walnuts and bring them together squarely. This will convey to you a proper interpretation of the notes. They issue from throats of the little yellow rail, the feathered mouse of the northern swales." ABBOTT, 1919, p. 97; visited the yellow rail coulee in the Choctaw Basin, Benson County, North Dakota.

The Rev. P. B. Peabody, of Blue Rapids, Kansas, in a letter of November 16, 1921, says yellow rails are found rather commonly, breeding in the Sheyenne coulees of Benson County, North Dakota, in late May and early June. Eight to fifteen eggs are usual; never, so far as known, more. The nests are usually found in fine grass where water is one to four inches deep. The bird is abundant locally, and rather surpasses, in numbers, both the other rails, *Rallus virginianus* and *Porzana carolina*, occurring in the same area.

67. *Fulica americana* Gmelin. Coot.

COUES, 1878, p. 647; extremely abundant from the Red River to the Rocky Mountains. HOFFMAN, 1882, p. 404; frequently noticed along the Missouri River between Bismarck and Fort Berthold until September 20, 1881. JUDD, 1917, p. 12; breeds in numbers in all large sloughs and many of the smaller ones. They are very prolific layers and replace stolen sets; at least three thousand eggs were taken by Indians around Rock Lake in the early summer of 1895.

There are two sets of eggs in the Museum of Zoology Collection; one lot of eleven taken at Larimore, Grand Forks County, June 10, 1896, by Alfred Eastgate, and another of six collected at Sweetwater Lake, Ramsey County, May 23, 1900, by E. S. Bryant.

68. *Lobipes lobatus* (Linnæus). Northern Phalarope.

JUDD, 1917, p. 12; tolerably common during spring migration, not noted in the fall. FREEMAN, 1919, p. 11; seen once on September 2.

At Devils Lake this species was one of the earliest migrants from the north in 1920. On July 15 a flock of nearly one hundred were feeding on the water and several were taken for records. In 1921 a few were seen on May 17, and the number gradually increased until May 25, when a big wave of them came in, and I estimated that there were a thousand or more in Creel Bay alone. Thousands more arrived each day until, on May 30, there must have been from eight to ten thousand on the bay. They were very tame and fed all around the boat on the numerous aquatic insects. Most of them left on June 2 and 3. On July 19 hundreds were on the lake again, the first arrivals from their summer homes in the north.

69. *Steganopus tricolor* Vieillot. Wilson's Phalarope.

COUES, 1878, p. 636; breeds throughout the country from the Red River to the Rocky Mountains. At Pembina breeds about reedy pools and prairie sloughs in June. REED, 1904, p. 109, a set of eggs from Larimore, Grand Forks County, May 30, 1897, collected by T. F. Eastgate. JUDD, 1917, p. 12; breeding in numbers around Rock Lake, Towner County. Nests were not far from the water on level, moist ground in a thick growth of grass. First arrivals were noted May 1. BAILEY, 1918, p. 65; photograph of nest and bird at Sweetwater Lake, Ramsey County, 1917.

This is a common summer resident, breeding in suitable localities. The earliest spring arrival was May 26, 1921. During August, 1920, many flocks came and fed in the mud flats of Creel Bay, Devils Lake.

70. *Recurvirostra americana* Gmelin. Avocet.

COUES, 1878, p. 635; not observed in the Red River region. S. C. C., p. 415; quite common, Bismarck, April 18, 1887. THWAITES, 1905, p. 186; on September 28, 1833, near Fort Union, Maximilian records seeing the avocet with its strange upturned bill. ABBOTT, 1916, p. 2; opposite this page is a photograph of a set of eggs *in situ* and another of the same showing young just hatched. These were evidently taken in North Dakota, but no data is given. JUDD, 1917, p. 12; a rare species, but undoubtedly breeds. A female taken May 15, 1895, by Dr. Bishop contained an egg fully formed.

The species was not seen in the field. Mr. Reid reports that it is frequent on some of the larger alkali lakes and sloughs northeast of Bismarck, and was noted at Chase Lake, Stutsman County, and was quite common at Lake Isabel, Kidder County, August 7, 1921. Mr. Alfred Eastgate tells me he saw avocets near Larimore in the summer of 1921. There is a mounted female in the Agricultural College Collection taken at Kenmare, Ward County, May 4, 1913. Two others, taken at Minot by W. S. Mumery, and one from the Turtle Mountains, October 5, 1917, by J. Kusler,

are also in that collection. The Olsen Collection contains a specimen taken in April, 1921, by Carl Olsen at the Little Missouri River. Mr. Allen, of Mandan, has mounted a bird taken at Dawson, Kidder County, October 3, 1921, and another from Windsor, Stutsman County, August 16, 1921.

71. *Himantopus mexicanus* (Müller). Black-necked Stilt.

The only record we have of this species is of a bird seen by Mr. Williams at Grafton during the spring migration of 1905.

72. *Philohela minor* (Gmelin). Woodcock.

COUES, 1874, p. 473; a woodcock shot at Fort Rice, Morton County.

A rare migrant or straggler in North Dakota. A resident hunter reported that he secured three from a flight in October, 1920, near St. Johns, Rolette County.

73. *Gallinago delicata* (Ord). Wilson's Snipe.

COUES, 1878, p. 638; abundant in the Mouse River region in September, 1873, when several specimens were taken the 16th and 27th. JUDD, 1917, p. 12; moderately common migrant, very common from July to October, 1893, in wet, grassy sloughs. Since found breeding in Turtle Mountains in some numbers. FREEMAN, 1919, p. 11; fairly common migrant, May 7.

I did not find this species in the field, but saw a mounted bird in the Williams Collection at Grafton, taken there May 3, 1904, by Henry Williams.

74. *Macrorhamphus griseus scolopaceus* (Say). Long-billed Dowitcher.

COUES, 1878, p. 638; during the fall migration in September the birds were numerous in the Mouse River region. JUDD, 1917, p. 12; moderately common, irregular migrant in late summer.

There is a mounted bird in the Williams Collection taken at Stump Lake, May 9, 1913, by Henry Williams.

On May 31, 1921, I saw a bird of this species in a large flock of sandpipers on a sandy point on Creel Bay, Devils Lake. Again, on July 24, a couple were seen on a small lake near Grafton in company with sanderling and lesser yellowlegs.

75. *Micropalama himantopus* (Bonaparte). Stilt Sandpiper.

JUDD, 1917, p. 12; a small flock seen May 27, 1895, and another flock or two the last week in July, migrating south.

There is a mounted specimen in the Agricultural College Collection taken at Stump Lake, May 9, 1913, by Henry Williams. A skin in the Museum of Zoology Collection was taken at Sweetwater Lake, August 13, 1900, by Charles L. Cass.

Considering the rarity of this species, I was fortunate in finding a flock of about thirty on July 15, 1920. These were feeding on the mud shore of Minnewaukan Bay, Devils Lake, and all were still in the dark barred breeding plumage. A few others were seen at Bluebill Lake in the Turtle Mountains on August 1, 1920. On May 31, 1921, a flock of ten or a dozen in the

breeding plumage were noted on the shore of Creel Bay, Devils Lake; these were the only ones seen in the spring migration.

76. *Tringa canutus* Linnæus. Knot.

The only knots known by the writer to have been taken in North Dakota are a bird in the Williams Collection, collected at Stump Lake, May 19, 1913, and another in the Agricultural College Collection, taken at Grafton, May 30, 1919, by Henry Williams.

77. *Pisobia maculata* Vieillot. Pectoral Sandpiper.

COUES, 1878, p. 640; common in the fall migration. First seen the latter part of July on the pools at the base of Turtle Mountains. Two specimens were taken July 28, 1873. JUDD, 1917, p. 12; abundant migrant, arriving the last week in April.

At Turtle Mountains this species was common from July 30 to August 7, 1920, in all the ponds and lakes visited. In the spring my first record was on May 27, 1921, when ten were seen on the beach of Devils Lake. In the fall migration it was first seen July 21, 1920, at a mud pond in the Rock Island Military Reservation.

78. *Pisobia fuscicollis* (Vieillot). White-rumped Sandpiper.

JUDD, 1917, p. 12; most abundant migrant of the sandpiper family, first seen April 19.

There is a mounted specimen in the Agricultural College, taken at Kenmare, Ward County, June 1, 1913, by H. E. Peck.

The species was observed in the field but once, on July 2, 1921, on the shore of Minnewaukan Bay. The only two seen were taken. The species is apparently becoming quite rare in the state.

79. *Pisobia bairdi* (Coues). Baird's Sandpiper.

COUES, 1878, p. 640; during the fall migration in the month of August, one of the most abundant sandpipers in Dakota. Small flocks were found along the Mouse River, where specimens were taken August 21-30, 1873. JUDD, 1917, p. 12; common migrant; arrives third week in April.

The first spring record was May 9, 1921, at Devils Lake, and more were recorded daily until May 23, when more than two hundred were seen. These gradually disappeared and by June 10 all had gone. The first fall record was July 14, 1920. After this date it became common at Devils Lake and was seen frequently at several other lakes and ponds. In 1921 ten were seen at Devils Lake on July 18, after which it became very common.

80. *Pisobia minutilla* (Vieillot). Least Sandpiper.

COUES, 1878, p. 640; taken July 30, 1873, at Turtle Mountains. JUDD, 1917, p. 13; fairly abundant migrant, first arrivals May 2, staying three or four weeks.

This species was seen first on May 10, 1921, at Devils Lake, and by May 28 two hundred or more were there. They had all gone by June 3. On the return migration a few were noted on July 2 at Devils Lake, and on July 27 they were quite abundant.

81. *Pelidna alpina sakhalina* (Vieillot). Red-backed Sandpiper.

JUDD, 1917, p. 13; fairly common migrant in 1895; first arrivals May 2.

There is a specimen in the Williams Collection, taken at Grafton, May 16, 1910, by Mr. Henry Williams.

In 1920 none were noted in July and August, but one was taken and another seen July 2, 1921, on the shore of Minnewaukan Bay. Seven of this species were on the beach at Creel Bay, May 7, two on May 16, and three on May 18, 1921.

82. *Ereunetes pusillus* (Linnæus). Semipalmated Sandpiper.

COUES, 1878, p. 639; abundant species noted at various points during the month of August, one taken at Mouse River, August 10, 1873. HOFFMAN, 1882, p. 403; not common near Fort Berthold, McLean County. JUDD, 1917, p. 13; equals the least sandpiper in numbers.

The species was very common after May 9, 1921, at Devils Lake. As late as May 31, a hundred or more were still there. Two were seen on the return migration, July 18, 1921. On July 21, 1920, large flocks were seen at a mud pond on the Rock Island Military Reservation.

83. *Ereunetes mauri* Cabanis. Western Sandpiper.

JUDD, 1917, p. 13; found with the semipalmated sandpipers, which they closely resemble.

On May 31, 1921, a single western sandpiper was taken from a large flock of sandpipers feeding on the beach at Devils Lake. While this was the only one identified, the species no doubt occurs rarely during the migrations.

84. *Calidris leucophæa* (Pallas). Sanderling.

JUDD, 1917, p. 13; not common, first date May 28.

The sanderling seems to be a rather common species in the Devils and Stump lakes region, especially during the fall migration. In 1920 the first were seen at Stump Lake July 24, but it soon became abundant on all the lake beaches and by August 24 it was one of the most common waders at Devils Lake. The first record for 1921 is May 26, at Devils Lake, when ten were noted. On May 31 over two hundred, and on June 10 thirty were seen there.

85. *Limosa fedoa* (Linnæus). Marbled Godwit.

BAIRD, 1858, p. 741; records the specimen mentioned below, No. 5450, as collected by Dr. Hayden, but does not give the date. However, it is listed in the Catalogue of the Trowbridge Collection and has the following data: "*Limosa fedoa*, Ord. Marbled Godwit. Male. Ft. Union, Nebraska (Dakota), July. Lt. Warren; Dr. Hayden. (5450)." (The specimen is in the Museum of Zoology Collection.) HAYDEN, 1863, p. 175; not common; took one at Fort Union. COUES, 1878, p. 641; a female was taken June 20, 1873, at Pembina, where they were probably breeding. COUES, 1897, p. 176; August 2, 1843, Bell saw several godwits near Fort Union. REED, 1904, p. 119; a set of four eggs taken June 10, 1895, at Devils Lake by W. F. Hill. BENT, 1907, p. 160; saw about twenty-six godwits in Steele County, June 13, 1901. At

Stump Lake, Nelson County, Dr. Louis Bishop noted a flock of about a hundred July 28, 1902, and on July 26, 1905, saw flocks of about forty adults and young. JUDD, 1917, p. 13; a few pair nested in Towner County.

Mr. Reid reports that a few breed in sloughs south of McKenzie, Burleigh County, each year. Noted June 9, 1921.

In 1920 godwits were first seen at a mud pond in the Rock Island Military Reservation on July 21. They were seen at Stump Lake, July 24, and flocks of eight to twelve became common in August at Devils Lake. They fed on the lake beaches as late as August 24, when all were in winter plumage. Two were seen on the shore of Creel Bay, Devils Lake, on May 11, 1921. It was not noted again until June 3, when a pair were found in a wet marsh near Cando, where they were breeding.

86. *Limosa hamastica* (Linnaeus). Hudsonian Godwit.

JUDD, 1917, p. 13; a fairly common migrant in 1895, first seen April 24.

There is a specimen in breeding plumage in the Williams Collection, taken at Grafton, May 7, 1911. An adult female, taken May 15, 1913, at Stump Lake, Nelson County, by Henry V. Williams, is now in the Museum of Zoology Collection. The species seems to be rare in the state. Coues did not see it in 1873, and I saw none during 1920 and 1921.

87. *Totanus melanoleucus* (Gmelin). Greater Yellow-legs.

BAIRD, 1858, p. 732; one taken at Fort Berthold, McLean County, in 1856. ALLEN, 1875, p. 66; seen a few times on the Heart River in September, 1873. COUES, 1878, p. 642; not observed until the last week in July; very abundant in August and September throughout the region. Specimens were taken on Mouse River, August 19, 23, 24, 25, 1873. JUDD, 1917, p. 13; fairly common migrant, first arrivals third week in April. FREEMAN, 1919, p. 12; fairly common, May 5.

Only one was seen. This was feeding on a mud flat near the Missouri River, at Williston, July 16, 1921. There is a mounted specimen in the Williams Collection taken at Grafton, April 30, 1909, and another, taken there April 19, 1914.

88. *Totanus flavipes* (Gmelin). Yellow-legs.

COUES, 1878, p. 643; very abundant in the Turtle Mountains and Mouse River region, August 5, 10, 22, 25, 30. JUDD, 1917, p. 13; common migrant, arrives in flocks about April 20.

This was one of the most common waders present on May 3, 1921, at Devils Lake, where it lingered until May 17. In 1920 it was first seen July 13 at Devils Lake, where flocks of two hundred soon became common. At Lake Upsilon, Turtle Mountains, sixty were counted in a flock August 4, 1920.

89. *Helodromas solitarius solitarius* (Wilson). Solitary Sandpiper.

BAIRD, 1858, p. 734; one taken at Fort Union, July, 1856, by Dr. Hayden. COUES, 1878, p. 643; occurs in abundance on all pools and water courses of the region during the autumnal migration, and there is reason to believe that some may breed in this latitude. Specimens taken at the Turtle Mountains, August 5, 1873, and Mouse River, August 22, 23, 1873.

Adults and young were seen at Devils Lake on July 30, 1920. The species was present and seemingly at home at Lake Upsilon, Turtle Mountains, on June 5, 1921. It is evident that it breeds in the lake and mountain regions at least.

90. *Catoptrophorus semipalmatus inornatus* (Brewster). Western Willet.

COUES, 1878, pp. 641-642; Red River to Rocky Mountains. Breeds in this region. HOFFMAN, 1882, p. 404; frequent along the sand-bars of the Missouri. JUDD, 1917, p. 13; common summer resident, arrives first week in May. BAILEY, 1918, pp. 113-114; family of nearly grown young near Sweetwater Lake, Ramsey County.

There is a male skin in the Museum of Zoology Collection taken in Ramsey County, June 5, 1900, by Charles L. Cass.

Mr. Alfred Eastgate found a nest with eggs in a wet meadow near Bottineau in June, 1920. On July 23, 1920, several adults with young were seen at Odessa Narrows. The young were mostly well grown. Fifteen birds were seen on July 27, 1920, at Devils Lake, and it was common there until August 20. In 1921 the species was first seen on May 12 at Devils Lake, and a few individuals fed on the beaches all of May and June. A pair were seen in a wet marsh near Cando, June 3, 1921.

91. *Bartramia longicauda* (Bechstein). Upland Plover.

BAIRD, 1854, p. 738; taken at Fort Union, July, 1855. ALLEN, 1875, p. 67; very common on the prairies east of the Yellowstone, where it outnumbered all the other Grallae together. COUES, 1878, p. 644; extremely abundant over all the prairie of the Red River region, where they breed in June. Twenty-six specimens taken at Pembina, June 4 to June 28, 1873, one at the Turtle Mountains, July 23, and one at Mouse River, August 19, 1873. ABBOTT, 1880, p. 985; says it is one of the most common birds of the prairie. HOFFMAN, 1882, p. 404; rather common during first three weeks of September. JUDD, 1893, p. 382; shot in numbers. BENT, 1901, p. 329; scattered about in pairs nesting in short grass. REED, 1904, p. 123; set of eggs collected June 10, 1897, at Stump Lake, Nelson County, by Alfred Eastgate. JUDD, 1917, p. 13; abundant summer resident formerly, but in 1910 the species was uncommon, and now only pairs are seen, and they are growing less in numbers very speedily. BAILEY, 1918, p. 112; a few on a strip of prairie near Sweetwater Lake.

A mounted specimen is in the Williams Collection, taken June 6, 1909, at Grafton, and there is a pair in the Museum of Zoology Collection taken at Grafton, June 10, 1914, by Henry Williams. Mr. Williams tells me that on the night of September 12, 1921, he heard a flock passing south overhead.

I was surprised at the scarcity of this species. In 1920 I saw but four in all the region worked, and in 1921 but three, on June 4, near St. Johns. It is rapidly becoming more rare.

92. *Tryngites subruficollis* (Vieillot). Buff-breasted Sandpiper.

JUDD, 1917, p. 13; a few single birds and one large flock were seen the last week in May, 1895. FREEMAN, 1919, p. 12; one record, September 21.

93. *Actitis macularia* (Linnæus). Spotted Sandpiper.

COUES, 1878, p. 644; summers throughout the region, specimens taken at Pembina, June 4, and Mouse River, August 10, 1873. JUDD, 1917, p. 15; a rare bird on the prairies, more common near the Turtle Mountains, where it breeds.

A few were found at Lake Upsilon, Turtle Mountains, from July 30 to August 7, 1920. At Devils Lake, in 1921, the first were seen on May 13, and they were observed almost daily on Creel Bay, where they no doubt nested. They occurred at all other places worked about the state.

94. *Numenius americanus* Bechstein. Long-billed Curlew.

ALLEN, 1875, p. 67; a few pairs met with at quite distant intervals from the Missouri to Montana. COUES, 1878, p. 645; breeds in moderate numbers about Pembina, the only locality where it was observed during the first season. COUES, 1893, p. 276; April 17, 1805, Lewis and Clark report seeing a curlew, *Numenius longirostris*, below Williston. COUES, 1897, p. 176; Bell shot two curlews near Fort Union in August, 1843. THWAITES, 1905, p. 369; on June 22, 1833, Maximilian records seeing the great curlew near the mouth of the Little Missouri River, and October 11, flocks of curlew near Fort Union.

The long-billed curlew is apparently rare in the state. There is one in the Williams Collection taken at Mandan, June 14, 1903. There are mounted specimens in the Agricultural College Museum, taken at Williston, July 26, 1913, and at Mandan, June 14, 1903. The species is reported to breed across the Missouri River, about ten miles south of Williston. Mr. Henry Williams reports that they breed at Ardoch, twenty miles south of Grafton. Mr. J. D. Allen states that in 1881 curlews nested on the prairie north of Mandan, but a few years later they became scarce and he has not seen one for several years. Senator Crawford, of Sentinel Butte, writes that he saw but two pairs during the summer of 1921 and that the last of June they were nesting in the vicinity. No live birds were seen during the time in the field.

95. *Numenius borealis* (J. R. Forster). Eskimo Curlew.

BAIRD, 1858, p. 744; records two specimens taken in 1856 by Dr. Hayden. HAYDEN, 1863, p. 175; not uncommon, high up toward the sources of the Missouri. Specimens were taken near Fort Union.

96. *Squatarola squatarola* (Linnæus). Black-bellied Plover.

McCHESNEY, 1878, p. 86; observed it in Dakota Territory only during the fall migration about October 25; quite common. JUDD, 1917, p. 15; tolerably common migrant the last week in May, usually in very small flocks or singly, and sometimes seen with the golden plover.

A mounted specimen is in the Williams Collection at Grafton, taken September 21, 1906, and a mounted female at the Agricultural College from Upper des Lacs Lake, May 18, 1913, collected by H. E. Peck. The Museum of Zoology Collection contains a male taken September 11, 1913, at Grafton, and another collected November 6, 1921, near Grafton, by H. V. Williams.

This species was not noted in 1920, but in 1921 four were seen on Creel Bay, May 26, in company with Baird's and other sandpipers. They fed there until May 31, after which date none were seen.

97. *Charadrius dominicus dominicus* (Müller). Golden Plover.

BAIRD, 1858, p. 691; one taken at Fort Berthold, McLean County, September 16, 1856, by Dr. Hayden. COUES, 1878, p. 633; no golden plovers are seen in summer in any portion of the region explored. They pass through in large numbers in May

and return the latter part of September, being abundant at this time in the Mouse River region, where many specimens were shot September 27, 1873. JUDD, 1893, p. 382; they pass in small flocks, feeding on burned fields or prairies. JUDD, 1917, p. 15; common migrant, usually arrives second week in May. A number of flocks were seen moving south early in July, 1895. FREEMAN, 1919, p. 12; observed frequently in the fall, September 21.

A male and female of this species, taken at Stump Lake, August 21, 1891, are in the Museum of Zoology Collection, the gift of Alfred Eastgate. There are several in the Agricultural College Collection, two of them labelled Kenmare, Ward County, May 13, 1914, H. E. Peck. The Williams Collection contains one taken at Grafton, September 7, 1907.

The species is apparently becoming much less abundant than formerly. Only one small flock was seen, at Devils Lake, May 24, 1921. Mr. Alfred Eastgate saw a flock of about five hundred at Bottineau in May, 1920.

98. *Oxyechus vociferus* (Linnæus). Killdeer.

COUES, 1878, p. 634; abundant throughout the summer in all suitable places. Specimen taken June 11, 1873, at Pembina. HOFFMAN, 1882, p. 403; rather frequent on sand-bars above the village (Fort Berthold) and along the pools of water farther inland. JUDD, 1917, p. 15; common summer resident; first arrivals, March 30.

This species is quite common in all the parts of the state worked. In 1921 it was at Devils Lake, May 2, when we arrived, and a pair with downy young was seen there July 13, 1921.

99. *Ægialitis semipalmata* (Bonaparte). Semipalmated Plover.

JUDD, 1917, p. 15; rare, one seen by Dr. Bishop at Rock Lake, May, 1895. FREEMAN, 1921, p. 12; rare, May 17.

In 1920 a semipalmated plover was seen at Devils Lake on July 14 and several were noted in August at Lake Upsilon, Turtle Mountains. One was taken from a flock of least sandpipers on August 4. May 17, 1921, is the earliest record I have, when only two or three were seen. Others were noted on May 19 and 25 and June 1, and one was taken on July 19 at Devils Lake.

100. *Ægialitis meloda* (Ord). Piping Plover.

REED, 1904, p. 130; nest from Devils Lake, Benson County, May 26, 1901. JUDD, 1917, p. 15; Devils Lake near Graham's Island.

In 1920 adults with half-grown young were seen July 14; a juvenile bird was taken from a brood of four at East Bay, Devils Lake, July 25; several were seen on August 21. On July 24, 1921, several adults with broods of young, some of which were only a few days old, were noted on the Devils Lake beaches; July 19 a brood of nearly grown young were found at Minnewaukan Bay. The species is not rare as a summer resident in the Devils Lake region.

101. *Podasocys montanus* (J. K. Townsend). Mountain Plover.

ALLEN, 1875, p. 66; two or three small flocks were met with in September, but generally they were seen only in single pairs at intervals of several days.

102. *Arenaria interpres morinella* (Linnæus). Ruddy Turnstone.

JUDD, 1917, p. 15; tolerably common around Rock Lake in 1895.

This species was not seen in July and August, 1920, but at Devils Lake in 1921 they were very common after May 23, when about fifty were seen, until June 11, when they left the lake. From May 25 to June 5 hundreds were seen each day feeding or resting along the rocky shores of Creel Bay and Fort Totten Bay. These were all in breeding plumage and quite tame.

103. *Bonasa umbellus umbelloides* (Douglas). Gray Ruffed Grouse.

KEENEY, 1875, p. 220; found ruffed grouse along the Red River in scrub timber near Fargo, October, 1875. JUDD, 1917, p. 15; common in the Turtle Mountains.

The species was found to be very common in the timber of the Turtle Mountains in July and August, 1920. There were twelve mounted specimens in the museum at the State Fish Hatchery at Lake Upsilon, which had been taken in the vicinity. Most of these birds were light gray with black ruffs and tail bands, but a few were a dark reddish chestnut with red ruffs and copper tail bands. Mr. Alfred Eastgate, who has collected many of these birds, says that both the red and gray forms occur in the same covey. My own experience agrees with this and suggests a dichromatic phase.

In the Museum of Zoology Collection are seventeen specimens from the Turtle Mountains, ten with gray-colored tails and seven with brown- or chestnut-colored tails; all but two have black ruffs and tail bands; the exceptions have chestnut-colored ruffs and copper-colored tail bands. This seems to be almost the extreme of the red phase, for I saw but one other in North Dakota that had more of the red color.

104. *Lagopus lagopus lagopus* (Linnæus). Willow Ptarmigan.

Mr. Russell Reid reports that a poorly mounted specimen taken October, 1909, in the Kildeer Mountains, Dunn County, was sent to J. D. Allen, at Mandan.

The species is a straggler or accidental winter visitant in the state. Senator Lewis F. Crawford, of Sentinel Butte, writes that he has seen one specimen, killed a few years ago in the western part of the state near Kildeer. This is probably the specimen referred to above.

105. *Tympanuchus americanus americanus* (Reichenbach). Prairie Chicken.

THOMPSON, 1890, pp. 514-515; in 1883 it began to be common at Pembina. JUDD, 1917, p. 15; common summer resident.

The species seems to gradually follow the settlement of the country and to now have a quite general distribution over the state in the prairie regions. There were thirty or more, August 9, 1921, in one flock near Bottineau, fifteen miles south of the United States boundary. A few were seen near Grafton in the Red River Valley, about forty miles south of Pembina, where Dr. Coues did not find it in 1873. A few were found at Medora and at Williston residents said it was common.

106. *Pedioecetes phasianellus campestris* Ridgway. Prairie Sharp-tailed Grouse.

BAIRD, 1858, p. 627; one taken at Fort Union by Dr. Hayden; one taken at Fort Union, 1843, by J. J. Audubon. COUES, 1878, p. 630; common from Pembina to the Mouse River; secured a number of specimens from June 4 to August 24, 1873. HOFFMAN, 1882, p. 403; several specimens secured by the Indians in timber four miles west of the Agency at Fort Berthold. COUES, 1893, p. 274; April 15, 1805, on the high plains of McLean County, Lewis and Clark record many grouse which appear to be mating. COUES, 1897, p. 26; Audubon says on June 11 he saw a fine flock of sharp-tailed grouse near the mouth of the Knife River, Mercer County: p. 87; on July 13, 1843, Harris saw six sharp-tailed grouse near Fort Union, and on July 29 Harris and Bell shot an old and young of this species. THWAITES, 1906, p. 199; October 11 to 30, 1833, Maximilian records seeing flocks of prairie hens near Fort Union: p. 208; October 31, numerous flights of prairie hens were crossing the river in flocks of thirty or forty. FREEMAN, 1921, p. 12; winter visitant, uncommon.

There are three immature specimens in the Museum of Zoology Collection, taken in Ramsey County, August 2, 1900, by Charles L. Cass. The species is common in the Devils and Stump lakes region, especially on brushy areas near timber. It also occurs in summer on the open prairie, and is found throughout the state in suitable habitats. It was found to be very common in the Turtle Mountain region in the clearings and open fields.

In winter this species migrates southward and enters all the timber tracts in numbers. Mr. Williams, of Grafton, tells me that the Columbian sharp-tail is found in the northern parts of the state at that time.

107. *Centrocercus urophasianus* (Bonaparte). Sage Hen.

ALLEN, 1875, p. 65; none seen east of the Little Missouri. HOFFMAN, 1882, p. 403; not common at the village, Fort Berthold, McLean County, but reported more abundant further west. ROOSEVELT, 1885, p. 149; the sage grouse is preëminently a grouse of the plains and is never found near trees; he shot them on the high plains west of his ranch. BENDIRE, 1892, pp. 106-107; range of sage grouse in the state is western North Dakota.

The sage hen was not seen alive, but several people reported its occurrence. Carl Olsen told me that he had shot some in recent years about thirty miles southwest of Medora. Victor File, of Medora, said that in 1915 he found them common near Marmarth, Slope County, where he shot several. Hon. Lewis Crawford, of Sentinel Butte, Billings County, in a letter to the writer dated August 23, 1921, says the sage grouse is plentiful about thirty miles south of there. At one place on the Cannonball River he has seen thousands of cocks on an old prairie dog town, bulling. In the breeding season all the males come together for this show-off, and at this time are very gentle and can be approached up to within fifty feet. The females are on their nests at this time and very rarely seen at the gathering.

108. *Ectopistes migratorius* (Linnæus). Passenger Pigeon. Extinct.

COUES, 1874, p. 388; along the Missouri often saw small flocks and noticed quite a number of nests in small trees between Fort Pierre and Fort Berthold. COUES, 1878, p. 628; countless flocks seen during the voyage down the Red River and at Pembina, where specimens were collected from June 4 to 14, 1873. Took one nest containing a single egg, June 13, and one bird in the Turtle Mountains in July. ABBOTT, 1880,

p. 985; one small flock met with in July, 1879, near Pembina. COUES, 1897, p. 156; August 23, 1843; Audubon says near mouth of Little Missouri they were passed by passenger pigeons. THWAITES, 1906, p. 32; on July 10, 1833, Maximilian records seeing many wild pigeons near Fort Union. JUDD, 1917, p. 29; J. F. Rickbell, of Cavalier, Pembina County, saw a number of flocks of fifty to a hundred in 1880 and 1881, and shot several.

109. *Zenaidura macroura carolinensis* (Linnæus). Mourning Dove.

COUES, 1878, p. 628; common at Pembina in June, 1873. HOFFMAN, 1882, pp. 402-403; several specimens observed only during the first half of September. THWAITES, 1905, p. 385; at Fort Union, Maximilian records seeing Caroline doves in July. JUDD, 1917, p. 15; tolerably common summer resident; nests on the prairies and in the Turtle Mountains.

This was found to be a very common species throughout the state. It is one of the most beneficial birds, for it feeds largely on seeds of injurious weeds.

110. *Cathartes aura septentrionalis* Wied. Turkey Vulture.

COUES, 1878, p. 627; frequently seen in the Red River region. HOFFMAN, 1882, p. 402; apparently not rare at Fort Berthold, McLean County. S. C. C., 1887, p. 414; seen occasionally near Bismarck. THWAITES, 1905, p. 337; on June 13, 1833, Maximilian saw a high tree entirely covered with turkey buzzards, in Emmons County along the Missouri River. JUDD, 1917, p. 17; straggler in prairie region, tolerably common around Devils Lake. BAILEY, 1920, p. 69; three turkey vultures seen at Sweetwater Lake.

The Williams Collection contains a specimen taken at Ardoch, Walsh County, October 4, 1914, by Mr. Williams. He has other records for Grafton of April 20, 1902, and May 22, 1921. Mr. Russell Reid informs me that it is not common at Bismarck; a specimen was taken there July 19, 1921.

A specimen was seen near Devils Lake on May 9, 1921, and another on May 18.

111. *Catharista urubu* (Vieillot). Black Vulture.

BOARDMAN, 1880, p. 106; saw a flock of black vultures a few miles north of Sanborn, Barnes County, and shot one to make sure of the identity.

This is the only Dakota record known to the writer.

112. *Elanoides forficatus* (Linnæus). Swallow-tailed Kite.

COUES, 1878, p. 147; "I am informed by my valued correspondent, Dr. C. E. McChesney, U. S. A., of the occurrence of *Elanoides forficatus* at Fort Sisseton, Dakota, during nearly the whole of last winter. [This fort was in Roberts County, not far from the North Dakota line.] This account tallies with Trippe's Minnesota record, north of Mille Lac, lat. 47°, while at Pembina, Dakota, lat. 49°. I was assured by an officer of the occasional appearance of the bird there."

113. *Circus hudsonius* (Linnæus). Marsh Hawk.

ALLEN, 1875, p. 64; rare in the breeding season, more common in August and September. COUES, 1878, p. 619; common throughout the region. Specimens were taken at Pembina, June 3 and 11, 1873; at Turtle Mountains, July 28, and Mouse River, August 10-19. HOFFMAN, 1882, p. 402; not common at Fort Berthold. JUDD, 1917, p. 15; very common summer resident.

This is a common species in all parts of the state. On June 29 a nest containing five small young was found in a dry marsh in tall, coarse grass. This is one of the most beneficial hawks, as it feeds principally on injurious mammals, all kinds of mice and ground squirrels.

114. *Accipiter velox* (Wilson). Sharp-shinned Hawk.

COUES, 1878, p. 620; recognized on one occasion when a female was taken at Mouse River, September 3, 1873. WARREN, 1890, p. 348; a specimen from Fort Buford, Williams County, taken September, 1887. JUDD, 1917, p. 17; rare, two specimens secured in 1895.

No live birds were seen, but there is one from the Turtle Mountains mounted in the Biological Station Museum at Devils Lake. The Williams Collection contains one taken at Grafton, September 8, 1912, by Mr. Williams.

115. *Accipiter cooperi* (Bonaparte). Cooper's Hawk.

BENDIRE, 1892, p. 193; Cooper's hawk in the vicinity of Grand Forks, North Dakota, occasionally nests on the ground according to George G. Cantwell.

The Williams Collection contains a female Cooper's hawk taken at Grafton, May 24, 1914, by Henry Williams.

The species was not fully identified in the field, although a hawk seen at a distance was recorded as Cooper's.

116. *Astur atricapillus atricapillus* (Wilson). Goshawk.

JUDD, 1917, p. 17; have seen head and feathers of two shot in north end of Townier County.

A male in the Museum of Zoology Collection was taken January 21, 1917, at Grafton, by H. V. Williams; the Williams Collection has one taken at Grafton, April 9, 1907; and there is a mounted bird without data in the State Biological Station Museum.

The species enters North Dakota in the fall, and some winter there, according to Mr. Williams. It is one of the most injurious of all the hawks, as it lives principally on game birds and mammals.

117. *Buteo borealis krideri* Hoopes. Krider's Hawk.

JUDD, 1917, p. 17; common migrant and also breeds in the same region as the red-tail, and probably types of both will be found intermingling and breeding.

The Williams Collection contains a fine specimen taken at Grafton, September 6, 1909, by Mr. Williams.

On August 23, 1920, I saw at short range a hawk which I was able to identify as Krider's. This, like the red-tail, is mostly beneficial in its food habits, feeding largely on injurious mammals.

118. *Buteo borealis calurus* Cassin. Western Red-tail.

COUES, 1878, p. 624; frequently observed in the west, but the only individual taken was at Mouse River, September 14, 1873. JUDD, 1917, p. 17; common migrant, breeds in Turtle Mountains and in timber around Devils and Sweetwater lakes.

The above note is given for the eastern form, and both that and the western doubtless occur in the state. Several were shot in August, 1920,

and a number of others seen which were hard to identify as either species. There are a number of mounted birds of both species in the Williams Collection. A fine specimen was also seen there, a partly albino male.

119. *Buteo borealis harlani* (Audubon). Harlan's Hawk.

SCHMIDT, 1904; central section as a migrant. CAMERON, 1907, p. 262; one from North Dakota, spring of 1890, now in British Museum. SAUNDERS, 1921, p. 173; this subspecies has been taken in North Dakota.

Mr. Alfred Eastgate is responsible for two records for this hawk; one taken at Stump Lake, October 2, 1902, and another at Dry Lake, October 14, 1912. The only specimen seen was in the Williams Collection, a large female collected at Grafton, May 1, 1916, by Henry Williams. It is now in the Museum of Zoology Collection.

120. *Buteo lineatus lineatus* (Gmelin). Red-shouldered Hawk.

SCHMIDT, 1920, p. 298; summer resident. BENDIRE, 1892, p. 219; probably occurs in small numbers in the more heavily timbered parts of North Dakota. The species was not seen in the field.

121. *Buteo swainsoni* Bonaparte. Swainson's Hawk.

BAIRD, 1858, pp. 21, 22; female taken at Heart River, North Dakota, September 21, 1856, and two females from the Little Missouri River, taken September 12, 1856, by Dr. Hayden. These were published as *Buteo bairdii* Hay, which name was later reduced to the synonymy of the present species. ALLEN, 1875, p. 64; more or less common; obtained an adult male on Heart River, June 25, 1873. COUES, 1878, p. 624; very abundant in North Dakota, where many specimens were taken from July 15 to September 9, 1873. BENDIRE, 1892, p. 239; Capt. B. F. Goss says he found this species breeding in North Dakota in the high timber along the streams from forty to fifty feet up and in low brush patches on the prairie in the lake region, where its nests were but two to four feet from the ground. REED, 1904, p. 162; set of eggs collected May 21, 1897, in Stark County, by Roy Dodd. JUDD, 1917, p. 17; an abundant summer resident, nesting in small bushes and also in tall trees. In July they appear in large numbers to feed on grasshoppers, gophers, mice, toads, etc. Writing in 1910, one would say they were rare birds and not found nesting at all, nor is there a summer flight of this species.

A male in the Museum of Zoology Collection was taken at Stump Lake, May, 1897, by Alfred Eastgate. In the collection of Mr. Williams at Grafton are a number of mounted birds, all in different plumages, some very dark and others quite light. This species must have greatly decreased in numbers or has changed its habits. At present it is rarely found nesting and is not seen in many localities where it was formerly abundant. It was first seen at Cando, June 3, 1921, when I secured one. In July and August I saw a few others in the prairie regions, but they seemed no more common than the red-tails. This is doubtless the most beneficial of the hawks in its food habits and should not be destroyed.

122. *Buteo platypterus* (Vieillot). Broad-winged Hawk.

JUDD, 1917, p. 17; fairly common straggler, no evidence of its breeding here has been noticed.

An adult female was taken August 23, 1900, at Devils Lake by Alfred Eastgate, and is now in the Biological Station Museum. One was seen and

taken at Cando, in a small grove of trees at the edge of town, on June 7. I saw one in 1920 at Lake Upsilon, Turtle Mountains, on August 2, and took one at Devils Lake, August 23. Another was seen there August 24, 1920.

123. *Archibuteo lagopus sancti-johannis* (Gmelin). Rough-legged Hawk.

JUDD, 1917, p. 17; very early spring and late fall migrant, first seen the last of March, tolerably common.

Mr. Reid reports that it is sometimes seen during migration and that a pair wintered in a small coulee north of Bismarck during 1920-21.

This bird was not seen in life, but there is a mounted specimen in the Williams Collection, taken November 1, 1908, at Grafton, where the species is a winter visitor.

124. *Archibuteo ferrugineus* (Lichtenstein). Ferruginous Rough-leg.

BAIRD, 1858, p. 35; a female taken October 12, 1855, on the Little Missouri River by Lieut. E. H. Warren. ALLEN, 1875, p. 65; one of the most common species, several nests found containing young. The nest is often a large, bulky structure, three or four feet in diameter, built of large sticks, mixed with the ribs of antelope and bison, and is placed on the ground or rocks usually near the summit of buttes. COUES, 1878, p. 626; found breeding in the Pembina Mountains by Lieut. F. V. Greene's party. HOFFMAN, 1882, p. 402; found in the timber of the river bottoms, though not very common. BENDIRE, 1892, p. 260; Capt. Goss wrote that the ferruginous rough-leg was not uncommon in the high, broken prairie and lake regions of northwest North Dakota. In May, 1880, he took four sets, the nests all on the ground on rocky hillsides and generally near large boulders. REED, 1904, p. 165; a set taken April 29, 1900, in Stark County, by Roy Dodd. BENT, 1907, pp. 213-214; corrects the name of a rough-legged hawk, supposed to have been the American, found breeding in Nelson County, June 4, 1901, and published in *Auk*, Vol. XVIII, p. 393, and says: "This nest, I am satisfied, belonged to a pair of ferruginous rough-legs." On June 17, 1902, Dr. L. B. Bishop found a nest near Lake Washington, North Dakota. All these developed the melanistic plumage. JUDD, 1917, p. 17; very common summer resident, breeding in considerable numbers in the hills in the northern part of Towner County. First seen early in April.

In the collection of the Museum of Zoology is a male in melanistic plumage, collected October 3, 1920, at Grafton, Walsh County, by H. V. Williams. The museum at the Biological Station, Devils Lake, contains a mounted bird, and there is another in the Williams Collection, taken at Grafton, October 1, 1920, by Henry Williams. The only nest known to the writer was found at Stump Lake, July 24, 1920. A pair had nested for years in a thick ash forest at the Wishart Ranch named "Hawks' Rest" by Mrs. F. M. Bailey, who made this place her headquarters while studying the birds of the Stump Lake Region and who wrote of this particular nest (*Condor*, 1918, Vol. XX, No. 4, p. 136). This species must be greatly reduced from its former numbers, as but two live birds were seen, one August 9, 1920, and another July 11, 1921, both near Bottineau. It is almost wholly beneficial, living on mice, ground squirrels and gophers.

125. *Aquila chrysaetos* (Linnæus). Golden Eagle.

ALLEN, 1875, p. 65; occasional: young one captured on Heart River. COUES, 1897, p. 107; Audubon says on July 21, 1843, near Fort Union, he saw young golden eagles.

This is a rare visitant or straggler in North Dakota. Only three are in

the state collections. One in the Agricultural College Collection is from Bismarck; there is a mounted one in the Rough Riders' Hotel at Medora, taken near there, and there is an immature bird in the Williams Collection, taken April 5, 1921, at Olga, Cavalier County. We were told by Mr. Halliday, a federal trapper, of a nest on an isolated butte near Medora. This species is considered quite destructive to game birds, and also kills hares, rabbits, and even young lambs, pigs and poultry.

126. *Haliaeetus leucocephalus leucocephalus* (Linnæus). Bald Eagle.

COUES, 1878, p. 627; frequent last week in May, 1873, along the Red River from Moorehead to Pembina. Several nests were noticed upon the tops of tall, isolated trees; upon one of the nests the parent was observed sitting. HOFFMAN, 1882, p. 402; occasional visitor in the vicinity of Fort Berthold. COUES, 1893, p. 265; April 10, 1805, Lewis and Clark shot bald eagles and saw many nests in tall cottonwoods near Fort Berthold, and on April 12 shot one near the mouth of the Little Missouri. COUES, 1897, p. 176; August 2, Owen climbed a tree to a white-headed eagle's nest and drove a young one out, which was brought to Fort Union alive. It is remarkable that the young should be in the nest at this late season. JUDD, 1917, p. 18; not common, breeds; a young bird was taken from the nest in the Turtle Mountains in 1890; two were seen in 1895, one of which was taken near Rock Lake.

No live birds were seen, but I have examined a mounted bird, taken at Medora, November, 1920. Captain Thomas Lonnevik took an immature male, October 15, 1921, at Devils Lake. This is in the Biological Station Museum. There is an immature male in the collection of the Museum of Zoology, taken by Henry Williams at Northwood, Nov. 25, 1913.

The bald eagle lives principally on fish, either dead ones cast on shore or upon those captured by other fish-eating birds. It is reported to feed upon water fowl also.

127. *Falco rusticolus rusticolus* Linnæus. Gray Gyrfalcon.

Mr. Reid reports two specimens at Mandan, taken at Hazen, Mercer County, March, 1919.

There is one adult in the Williams Collection taken at Grafton, October 7, 1908. This species must be considered as an accidental visitant or straggler in North Dakota.

128. *Falco mexicanus* Schlegel. Prairie Falcon.

HAYDEN, 1863, p. 152; along the Missouri, though not abundant. JUDD, 1917, p. 18; common, especially during August and September. The only species of hawk seen taking poultry. Have seen them swoop down in the main street of the town after their prey.

The species may have been common some years ago, but I failed to find it so during my work in the state. Mr. Alfred Eastgate tells me that it is a common migrant and breeds along the Mauvaise Coulee in Towner County. On August 9, 1920, I noted a fine bird, the only one seen, on a fence post near a small alkali lake, about five miles southwest of Bottineau.

129. *Falco peregrinus anatum* Bonaparte. Duck Hawk.

COUES, 1897, p. 156; Audubon says he saw many peregrine falcons near Fort Clark, Oliver County: p. 176; on August 2, Bell and Owen saw a peregrine falcon feeding

its young near Fort Union. REED, 1904, p. 169; a set of eggs from Stark County, taken May 4, 1901, by Edw. Dodd. JUDD, 1917, p. 18; not common, several seen during the season. One female taken in June, 1895, by Dr. Louis Bishop. BAILEY, 1920, p. 69; a duck hawk flew swiftly in, darted down and seized a coot at Island Lake, Ramsey County.

Mr. Alfred Eastgate, who lived for several years (1894-1915) on the shore of Stump Lake, Nelson County, told the writer that duck hawks were common there from October 10 to November 10 each year. Mr. Williams mounted one taken in October, 1904, at Glasston, by C. Storey. On May 19, 1921, I saw a bird perched on a stone duck blind on the point west of Creel Bay, Devils Lake. This was the only specimen seen alive, but Mr. D. R. Ducke, of the State Fish and Game Commission, gave me a skin of an immature bird taken by him in Eddy County, April 10, 1910.

130. *Falco columbarius columbarius* Linnæus. Pigeon Hawk.

ALLEN, 1875, p. 64; seen at distant intervals on the Heart River in September. COUES, 1897, p. 162; on September 5, on the upper Missouri, Audubon saw a pigeon hawk chase a spotted sandpiper, which dove under the water and escaped. JUDD, 1917, p. 18; hawks seen flying at a distance were assigned to this species. Rare, if it occurs at all.

Mr. Alfred Eastgate says it is a common migrant. The skin of a male taken September 16, 1914, at Grafton, Walsh County, by H. V. Williams, is in the Museum of Zoology Collection. No living birds were seen, but there is a mounted one without data in the Biological Station Museum at Devils Lake, and another in the Williams Collection, taken at Grafton, June 18, 1912, by Mr. Williams, who says it nests there rarely. There is also a mounted male in the Agricultural College Museum from Kenmare, Ward County, taken May 2, 1913, by H. E. Peck.

131. *Falco columbarius richardsoni* Ridgway. Richardson's Pigeon Hawk.

COUES, 1874, p. 349; young male taken at Fort Rice by General Alfred Sully. COUES, 1878, p. 623; one specimen, the only individual of this species observed, was taken on the headwaters of the Mouse River, September 8, 1873. BENDIRE, 1892, p. 304; U. S. National Museum contains some from North Dakota.

The species was not seen in the field, and so far as known there are no specimens in the state collections.

132. *Falco sparverius sparverius* Linnæus. Sparrow Hawk.

COUES, 1878, p. 623; very abundant throughout the region surveyed. Many specimens were taken from Pembina to Mouse River, June 19 to August 30, 1873. HOFFMAN, 1882, p. 402; frequently seen in pursuit of small birds near the village. COUES, 1897, p. 24; on June 10 a sparrow hawk was killed above the Little Missouri River.

This is a common summer resident of all the wooded areas; it was present on my arrival at Devils Lake, May 3, 1921, and one was found nesting the last of that month in an oak tree at the side of the road on the Rock Island Military Reservation. Of four specimens taken, three are, no doubt, of this eastern species, while one is referred to the western or desert form.

The sparrow hawk is a very beneficial species, living principally upon insects and injurious mammals.

133. *Falco sparverius phalaena* (Lesson). Desert Sparrow Hawk.

There is a specimen in the Williams Collection, taken at Grafton, May 12, 1907. One of my specimens, an adult female taken at Devils Lake, May 10, 1921, is referred to this form.

134. *Pandion haliaëtus carolinensis* (Gmelin). Osprey.

JUDD, 1917, p. 18; rare, one seen at Snyder Lake, Towner County, April 24, and again on May 28, 1895.

This species was not seen in the field, but Mr. Williams told me that he saw one which was shot at Niagara, Grand Forks County, on September 25, 1920, and another at Grafton, April, 1921.

135. *Aluco pratincola* (Bonaparte). Barn Owl.

This seems to be a very rare species in North Dakota. It was not observed in the field. Mr. Alfred Eastgate has a record for Grand Forks, November, 1891. There is a mounted specimen in the Williams Collection taken at Oakes, Dickey County, September 1, 1912. Mr. J. D. Allen, of Mandan, has mounted a bird collected in Stutsman County, September 7, 1921, by Eddie Schutt, and two from Hebron, Morton County, taken September 6, 1921, by Joe Wagenhopper.

136. *Asio wilsonianus* (Lesson). Long-eared Owl.

ALLEN, 1875, p. 64; occasional, two specimens obtained. JUDD, 1917, p. 18; not common; one nest found May 25, 1895, in bushes along Big Coulee in the northern part of the county. BAILEY, 1919, p. 227; family of three-quarter grown specimens on Sweetwater Lake on August 17, 1917.

A nest of this species was found at Hay Creek, near Bismarck, on May 22, 1921, by Russell Reid (see photograph).

A mounted specimen without data is in the Biological Station Museum. It was probably taken near Devils Lake. I saw, in a deep draw near Medora, a female with three young and an unhatched egg in an old magpie's nest built in a thicket of trees. On June 19 the oldest of these young was one-half grown, the next was much smaller, while the youngest was only about half as large as the oldest. This is a very beneficial species, feeding almost entirely on mice and small mammals injurious to the farm crops.

137. *Asio flammeus* (Pontoppidan). Short-eared Owl.

ALLEN, 1875, p. 64; apparently the most common of the owls. LARSON, 1913, p. 94; occasionally seen; could be found almost anywhere in McKenzie County in the winter of 1912-13. BAILEY, 1915, p. 174; saw a number flying about in the daytime, July 8 and 9, 1912, between Stump and Devils lakes. JUDD, 1917, p. 18; common summer resident, usually arrives third week in April; full set of eggs was found May 18.

This owl is, no doubt, the most common one in North Dakota. Mounted specimens are in all the state collections. I found one, May 26, 1921, in a marsh at the north end of Creel Bay, and at Bottineau, July 11, saw a number in the road after dark. This species destroys immense numbers of small mammals injurious to the farm crops and, like the two preceding species, should always be protected.

138. *Strix varia varia* Barton. Barred Owl.

COUES, 1874, p. 309; Dr. Hayden's Missouri River specimen remains the westernmost on record for the species. ALLEN, 1875, p. 64; met with on the Missouri at Fort Rice, 1873. HOFFMAN, 1882, p. 401; said to be of frequent occurrence, though only a single specimen was found at Fort Berthold.

My only record is of a mounted specimen in the Williams Collection, taken at Grafton, October 3, 1904. This species is also a beneficial one, but as it is rare in North Dakota is not of much economic importance.

139. *Scotiaptex nebulosa nebulosa* (J. R. Forster). Great Gray Owl.

RIDGWAY, 1914, p. 637; one from Mandan, North Dakota.

Mr. Alfred Eastgate writes me that he has a specimen taken at Grand Forks in January, 1892.

This species, like the last, was not noted by Coues or Judd, nor did I see any in life. A mounted specimen in the Williams Collection was taken near Pembina, February 3, 1900. It only occurs as a rare winter visitor. It is not beneficial, since it feeds mostly upon game birds and mammals.

140. *Cryptoglaux funera richardsoni* (Bonaparte). Richardson's Owl.

JUDD, 1917, p. 18; rare winter resident and migrant.

The Williams Collection has a specimen taken at Grafton, April 8, 1904. The Agricultural College Museum contains a male taken at Grafton, December 16, 1910, by Mr. Williams, who reports it as common only during the winter months. Mr. Alfred Eastgate records one from Stump Lake, March 27, 1904. This, like the great gray owl, is only a rare winter straggler in North Dakota.

141. *Cryptoglaux acadica acadica* (Gmelin). Saw-whet Owl.

JUDD, 1917; rare, taken in winter only.

The Agricultural College Museum contains a mounted bird taken on the College Campus, October 10, 1920. I saw specimens in the Williams Collection, taken November 10, 1909. Mr. Williams told me it nested at Grafton. This and the preceding species are of little economic importance, as they occur but rarely. In general, they are beneficial, feeding mostly upon mice.

142. *Otus asio asio* (Linnæus). Screech Owl.

FREEMAN, 1921, p. 12; fairly common, both the fuscous and gray phases found. A pair have been observed for several years in Island Park.

Mr. Reid records one in the red phase found west of Mandan, November 13, 1921.

I saw a mounted specimen in the collection of William Shunk, of Anselm, that had been taken there recently. One in the Williams Collection was taken January 9, 1908. One was killed at Stump Lake, 1906, and mounted by Alfred Eastgate.

143. *Bubo virginianus virginianus* (Gmelin). Great Horned Owl.

BAIRD, 1858, p. 51; female taken at Fort Union. COUES, 1878, p. 618; a pair with two young observed at Pembina early in June, 1873. HOFFMAN, 1882, p. 401; was

informed that the species is not rare. A wing was found in possession of an Indian who used it as a fan. COUES, 1893, p. 272; April 14, Lewis and Clark record the killing of a large hooting owl. COUES, 1897, p. 97; Audubon says he shot a great horned owl near Fort Union.

The Williams Collection contains three forms of horned owls; one of these, which I have referred to this species, was dark, marked with yellow and rufous, like our Michigan birds. It was taken at Grafton, November 10, 1903. Another typical specimen was also collected at Grafton, November 1, 1903. Mr. Eastgate records one from Larimore, January, 1906.

144. *Bubo virginianus pallescens* Stone. Western Horned Owl.

JUDD, 1917, p. 19; common resident of Turtle Mountains, where it breeds. Nests were found with eggs in February and March.

This is the most common form found in North Dakota. I saw several mounted specimens in the state collections. On May 28, 1921, I found a nest in a big willow tree at the edge of Fort Totten Lake in Sully Hill National Park near Fort Totten. It contained three downy young nearly half grown. These were brought to me at the Biological Station on June 11 by the keeper of the park, Mr. Triska, who told me that the parents were catching the tame ducks in the park pond, so he shot the female, but it escaped. The largest one of the young is in the North Dakota Biological Station Museum. It was well grown, with tail and wing feathers about half length. The two smaller ones are in the Museum of Zoology Collection. The species probably destroys not only a considerable amount of poultry and game birds but also numbers of small mammals.

145. *Bubo virginianus subarcticus* Hoy. Arctic Horned Owl.

RIDGWAY, 1914, p. 751; one from Devils Lake, North Dakota.

This form is supposed to be only a winter visitant in North Dakota, but Mr. Williams, in whose collection are some fine specimens, says that it breeds at Grafton. A fall record was December 3, 1903.

146. *Nyctea nyctea* (Linnæus). Snowy Owl.

DRANE, 1907, pp. 218-219; Mr. J. D. Allen, of Mandan, writes on March 11, 1907: "The snowy owls have not been as abundant this winter as last, when I had thirty sent to me. Some years ago I secured over 500 specimens and the following year over 350." LARSON, 1913, p. 94; only one seen in McKenzie County in winter of 1912-1913. JUDD, 1917, p. 19; common winter resident and migrant. Seen here from October to May. One seen at Rock Lake, July, 1910.

This species seems to be common in collections. Mr. Williams had a dozen or more, two of which were practically pure white. At the Williams shop seventy-five of these birds were mounted in one winter. A pair in the flesh was received at the Museum of Zoology, December 24, 1921, sent from Grafton by H. V. Williams. On account of their great numbers and destructive food habits they are, with the horned owl, a great menace to the game birds and mammals of the state. However, at some seasons of the year they destroy mice, gophers and other injurious mammals.

147. *Surnia ulula caparoch* (Müller). Hawk Owl.

JUDD, 1917, p. 19; rare, one specimen taken in the fall of 1902.

This species was seen only in collections. The Agricultural College Museum has a mounted male taken at Joliette, Pembina County, October 24, 1912, by Mr. Williams. At Grafton, I saw one taken there December 10, 1908. Mr. Williams reports that he had seen them only during that winter, when they were quite common.

148. *Speotyto cunicularia hypogaea* (Bonaparte). Burrowing Owl.

ALLEN, 1875, p. 64; not numerous, met with at intervals in the prairie dog towns from the Little Missouri westward. HOFFMAN, 1882, p. 402; rather common ten miles east of the village in the prairie dog town. WARREN, 1890, p. 365; a specimen from Fort Buford, taken September 29, 1887. BAILEY, 1918, p. 176; was told that a burrowing owl, here at the extreme eastern limit of its range, had nested in an old badger hole at Sweetwater Lake, Ramsey County.

The species ranges farther east than Bailey records. On July 24, 1921, I saw two families of five and six young each in an old pasture north of Grafton, Walsh County. They were living in old badger or ground squirrel burrows. At that time they were able to fly well. On July 11, 1921, two families with five and six young each, also able to fly, were observed about fourteen miles west of Bottineau. None were noted near Medora, though the habitat seemed very favorable for them. This owl is beneficial in habits and should be protected.

149. *Comuroopsis carolinensis* (Linnæus). Carolina Paroquet.

THWAITES, 1906, p. 250; Maximilian mentions this species in a list of birds at Fort Clark, 1833. In 1843 Audubon saw them in South Dakota near Fort Pierre.

150. *Coccyzus americanus americanus* (Linnæus). Yellow-billed Cuckoo.

ALLEN, 1874, p. 63; several times observed along the Heart River. JUDD, 1917, p. 19; E. S. Bryant claims to have taken this species at Freshwater Lake. FREEMAN, 1919, p. 13; rare, occurs the latter part of May or early June.

This species was not seen, but it no doubt occurs rarely in the south and eastern parts of the state, as it is noted as a common breeder in South Dakota by Visher.⁵

On October 10, 1921, Henry Williams, of Grafton, received a bird in the flesh from Professor Miller, of Fargo.

151. *Coccyzus erythrophthalmus* (Wilson). Black-billed Cuckoo.

COUES, 1878, p. 615; a nest in Pembina Mountains was found July 12, 1873, which contained a single young bird. JUDD, 1917, p. 19; tolerably common summer resident in Turtle Mountains.

A common summer resident about Devils Lake in 1920 and 1921, and observed in the Turtle Mountains on August 7, 1900, and on June 4, 1921. It is a very beneficial bird, eating worms, caterpillars and other injurious forms of insect life.

⁵An Annotated List of the Birds of Sanborn County, South Dakota. *Auk*, Vol. XXX, No. 4, October, 1913.

152. *Ceryle alcyon* (Linnæus). Belted Kingfisher.

COUES, 1878, p. 615; general distribution along the Red and Mouse rivers. One was taken at Pembina, June 9, 1873. HOFFMAN, 1882, p. 401; not common at the settlement, but seen above and below it. THWAITES, 1906, p. 186; near Fort Union, September 28, 1833, Maximilian saw many kingfishers. JUDD, 1917, p. 19; tolerably common migrant. Rarely found nesting. FREEMAN, 1921, p. 13; a few nest here, April 2.

This species was not observed at Devils Lake, but two were seen at Lake Upsilon, Turtle Mountains, August 5, 1920, and at Lake Winnebegoosis in the western end of the mountains on July 11, 1921. It was also seen at Cando, June 10, 1921, by Elmer T. Judd, and I found it at Fargo, July 27, 1921, along the Red River.

153. *Dryobates villosus villosus* (Linnæus). Hairy Woodpecker.

HOFFMAN, 1882, p. 401; observed among the groves near the bad lands east of the village. RIDGEWAY, 1914, p. 202; two adult males from North Dakota. SCHMIDT, 1904; lists this species from North Dakota. SCHMIDT, 1920, p. 302; lists this species as a common summer resident. FREEMAN, 1921, p. 13; permanent resident, seen every month in the year.

I did not see this species, but it no doubt occurs in the Red River region.

154. *Dryobates villosus leucomelas* (Boddaert). Northern Hairy Woodpecker.

COUES, 1878, p. 615; observed in heavy timber in the Turtle Mountains. One specimen taken there, July 20, 1873. (The above was given under the previous species name, *villosus*, but the bird was doubtless this form.) SCHMIDT, 1904; nests. JUDD, 1917, p. 19; tolerably common resident in the Turtle Mountains; breeds.

On July 20, 1920, a typical adult female was taken at Devils Lake. I did not see it during my stay in the Turtle Mountains.

Two specimens are in the Museum of Zoology, a male and female, taken at Grafton, February 28, 1922, by H. V. Williams.

The species feeds upon wood-borers and injurious insects.

155. *Dryobates pubescens medianus* (Swainson). Downy Woodpecker.

JUDD, 1917, p. 19; common summer resident in the Turtle Mountains; first seen in the middle of May.

A common resident of all the wooded areas worked. It was seen in the Turtle Mountains, August 1 to 7, 1920, and at Devils Lake, May 4, 1921. This, as well as the hairy woodpecker, is very beneficial in food habits, ridding the trees of wood-borers and other injurious insects.

156. *Picoides arcticus* (Swainson). Arctic Three-toed Woodpecker.

JUDD, 1917, p. 19; rare, Bryant collected one in the spring of 1894.

A mounted specimen is in the Williams Collection at Grafton, taken there January 23, 1912, by Mr. Williams. This was the only one seen. It occurs only rarely.

157. *Sphyrapicus varius varius* (Linnæus). Yellow-bellied Sapsucker.

COUES, 1878, p. 616; plentiful at Pembina, where it was breeding in June, 1873.

Specimens were taken June 5 to July 8 at Pembina, and September 16 at Mouse River. JUDD, 1917, p. 19; summer resident of Turtle Mountains. FREEMAN, 1919, p. 13; common summer resident, April 4.

Mr. Russell Reid reports that the species is sometimes seen during migration. Specimens were taken on April 24 and May 5, 1920, near Bismarck.

Many adults and young were observed in the Turtle Mountains from July 30 to August 7, 1920, and on June 5, 1921. I saw a nest in a big cottonwood tree on the Fargo College Campus in July, 1921. This species is considered injurious to trees, especially fruit trees, which it often girdles with its punctures.

158. *Phlaeotomus pileatus abieticola* (Bangs). Northern Pileated Woodpecker.

The only specimens from North Dakota known to me are one in the Williams Collection taken at Grafton, May 30, 1905, and another in the Fargo College Museum, labelled Red River, October 16, 1915, Henry Williams. This is a beneficial species, eating ants and all kinds of wood-boring beetles and larvae.

159. *Melanerpes erythrocephalus* (Linnæus). Red-headed Woodpecker.

COUES, 1878, p. 617; common along the Red and Upper Missouri rivers. A specimen was taken at Pembina, June 9, 1873. JUDD, 1917, p. 19; rare; a straggler from the Red River flight.

This species was not seen at Devils Lake, but it was common at Medora in June, 1921, and was noted at Fargo, June 13, and at Grand Forks, July 21, 1921.

160. *Asyndesmus lewisi* Riley. Lewis's Woodpecker.

SCHMIDT, 1904; western and central North Dakota, rare.

A mounted specimen is in the Williams Collection, taken at Neche, Pembina County, October 13, 1916, by Peter D. Heilly.

161. *Centurus carolinus* (Linnæus). Red-bellied Woodpecker.

I am unable to find a published record from North Dakota. A skin of a male taken in September, 1897, at Stump Lake, Nelson County, by Alfred Eastgate, is in the Museum of Zoology Collection. It must be recorded as a rare straggler in the state.

162. *Colaptes auratus luteus* Bangs. Northern Flicker.

COUES, 1878, p. 617; common along the Red and Mouse rivers and seen at Pembina and Turtle Mountains. Specimens were taken from June 6 to September 3, 1873. HOFFMAN, 1882, p. 401; saw no living or fresh specimen, but in the Great Lodge of the Arickaras was a true *auratus* poorly mounted. RIDGWAY, 1914, p. 18; east of Rocky Mountains except North Dakota and Minnesota. On page 20 he refers the North Dakota form to *C. a. borealis*. JUDD, 1917, p. 19; common summer resident, Turtle Mountains.

This was found to be a very common species at Devils Lake from May 3, 1921, nesting in the ash forest and feeding on ants along the beaches of

the lake. It was also seen at all of the localities worked. This is a very beneficial species, eating many injurious insects, seeds and wild fruits.

163. *Colaptes cafer collaris* Vigors. Red-shafted Flicker.

HOFFMAN, 1882, p. 401; during the whole month of September at Fort Berthold, McLean County. BENDIRE, 1895, p. 134; ranges east to North Dakota. COUES, 1897, p. 24; June 12, Harris saw several red-shafted woodpeckers near Fort Union: p. 41; June 19, Harris and Bell brought a new bird like our common golden-winged woodpecker, but with a red mark instead of a black one along the lower mandible. In a foot-note Dr. Coues says, here is the original nidification of the curious flicker of the Upper Missouri region, which Audubon named *Picus ayresii*. It is the *Colaptes hybridus* of Baird, in which the specific characters of the golden-winged and red-shafted flickers are mixed in every conceivable degree and which later puzzled Audubon; p. 71; Audubon says: "On July 1, Harris and Sprague brought in the most curious set of five birds that I ever saw and which I think will puzzle all the naturalists in the world. These all belonged to one nest and were all differently marked."

Mr. Russell Reid reports that the species is frequent about Bismarck and that a pair nested on the High School grounds at Bismarck last May. He had seen hybrids of this and *luteus*.

But one specimen was seen in life, at Williston, near the Missouri River, June 7, 1921. At Grafton I saw a mounted specimen in the Williams Collection taken by Henry Williams on December 3, 1919. It was seen in the locality some time before it was taken. The form is no doubt very rare in that part of the state.

164. *Antrostomus vociferus vociferus* (Wilson). Whip-poor-will.

COUES, 1878, p. 613; although no specimens of this bird were taken, its unmistakable notes were heard every night in June at Pembina, assuring him of its presence in numbers in the heavy timber of the river bottom. This locality is very near its northern limit and it probably is not found any distance west of the Red River. ABBOTT, 1880, p. 984; heard on one occasion at Pembina. BENDIRE, 1895, p. 146; the whip-poor-will occurs west to eastern North Dakota. JUDD, 1917, p. 19; Mr. Conners reported he both heard and saw this bird on his yard fence in Cando. FREEMAN, 1919, p. 13; rare summer resident, heard along Red River.

Alfred Eastgate records it from Larimore, Grand Forks County, June, 1912. I did not see or hear this species at Devils Lake or the Turtle Mountains.

165. *Phalacroptilus nuttalli* (Audubon). Poor-will.

HAYDEN, 1863, p. 157; though rarely seen, this bird seems to be generally distributed throughout the Upper Missouri country. COUES, 1893, p. 171; Lewis and Clarke caught a whip-poor-will of a small and uncommon kind, October 17, 1804. In a foot-note Coues says that this is the bird first named and described by Audubon, Orn. Biog., V. 1839, page 335 as *Caprimulgus nuttalli*, or Nuttall's whip-poor-will. BENDIRE, 1895, p. 153; poor-will ranges to southern North Dakota. RIDGWAY, 1914, p. 550; northwest North Dakota.

While at Medora, June 14-23, this bird was heard a few evenings, giving its peculiar call, but none were seen.

166. *Chordeiles virginianus virginianus* (Gmelin). Nighthawk.

COUES, 1878, p. 613; occurs in summer throughout the whole region surveyed and is in most places very common. JUDD, 1917, p. 19; common summer resident. FREEMAN, 1919, p. 13; very common summer resident, May 22.

The species was not found at any of the localities visited except Cando, Towner County, where a typical one was taken, June 3, 1921.

167. *Chordeiles virginianus henryi* Cassin. Western Nighthawk.

ALLEN, 1874, p. 62; everywhere quite common. COUES, 1878, p. 138; the birds of the arid Missouri region are referable to the variety *henryi*. HOFFMAN, 1882, p. 401; common until the 20th of September. JUDD, 1917, p. 20; intermingling and breeding with *virginianus*.

168. *Chordeiles virginianus sennetti* Coues. Sennett's Nighthawk.

BISHOP, 1896, pp. 134-135; a series of ten adult male nighthawks [now in the American Museum] from Towner and Rolette counties, North Dakota, all closely resemble the type specimen, Number 4927 from the George B. Sennett Collection. RIDGWAY, 1914, p. 569; Fort Union, Pembina, Fort Rice, Towner County, Devils Lake, Indian Reservation, Pierce County, Rolette County and Nelson County, Fort Berthold, North Dakota.

Specimens taken in Ransom, Ramsey, Bottineau, and Williams counties were referred to this species by the writer, who believes it to be the predominating nighthawk in North Dakota.

All the nighthawks are very beneficial, living principally on mosquitoes.

169. *Chaetura pelagica* (Linnæus). Chimney Swift.

ALLEN, 1875, p. 62; common along the Missouri at Fort Rice, June, 1873. COUES, 1878, p. 614; common at Pembina and westward only to the Mouse River. Specimens taken at Pembina, June 2 to 24, and Mouse River, August 27, 1873. HOFFMAN, 1882, p. 401; saw no specimens in September, though nests were found in several places. JUDD, 1917, p. 20; a rare straggler, does not occur every year. FREEMAN, 1919, p. 13; common summer resident, Fargo, April 27.

At Devils Lake this species was first seen on May 20, 1921, and throughout the summer, as a pair nested in the big chimney of the station. This was the only locality I noted for the species, which is no doubt rare over most of the state.

170. *Archilochus colubris* (Linnæus). Ruby-throated Hummingbird.

COUES, 1878, p. 614; quite common at Pembina, not seen west of this point. Male taken June 5, 1873. JUDD, 1917, p. 20; not uncommon on prairies. Common and breeds in the Turtle Mountains. FREEMAN, 1919, p. 13; common summer resident.

This species was not rare after May 20, 1921, and is quite generally distributed over the state.

171. *Tyrannus tyrannus* (Linnæus). Kingbird.

COUES, 1878, p. 608; extremely numerous at Pembina. Specimens taken from June 2 to June 28, 1873. JUDD, 1917, p. 20; a very common summer resident.

The species was common after May 20, 1921, at Devils Lake, and was found in numbers in all parts of the state visited.

172. *Tyrannus verticalis* Say. Arkansas Kingbird.

COUES, 1897, p. 56; Audubon says on June 25, 1843, Harris brought in several Arkansas flycatchers (kingbird) at Fort Union: p. 86; on July 13 Audubon shot seven

Arkansas flycatchers. JUDD, 1917, p. 20; rare at Cando and north up to 1895. In 1910 they equalled the kingbird in numbers. FREEMAN, 1919, p. 13; a very common summer resident.

At Devils Lake this species was very common after May 14, 1921, and also occurred in numbers from Bottineau up to the edge of the Turtle Mountains, where it was not found. On July 24 it was not rare at Grafton.

173. *Myiarchus crinitus* (Linnæus). Crested Flycatcher.

JUDD, 1917, p. 20; rare, several specimens have been taken in the Turtle Mountains. FREEMAN, 1919, p. 13; not a common summer resident; seen along the Red River.

There is a mounted one in the Williams Collection taken at Grafton May 1, 1920. This species was seen but once, July 21, 1921, on the banks of the Red River south of Grand Forks.

174. *Sayornis phoebe* (Latham). Phoebe.

COUES, 1878; does not list this species. JUDD, 1917, p. 20; rare, but one specimen for this locality, April, 1895. FREEMAN, 1919, p. 13; occasional summer resident; April 3.

At Grafton Mr. Henry Williams has a nest and set of eggs taken from under a small bridge in the woods near that place in 1921. It has been noted at Anselm by William Shunk, a local bird student.

This species was seen about the store-house in the Rock Island Military Reservation at Devils Lake, May 7, 1921. No doubt it is rare in the state.

175. *Sayornis sayus* (Bonaparte). Say's Phoebe.

BAIRD, 1858, p. 186; one taken near Fort Union, August, 1856, by Dr. Hayden. HAYDEN, 1863, p. 158; it is quite rare among the ravines of the Bad Lands. ALLEN, 1875, p. 61; a few pair seen nesting in the Bad Lands and later small flocks of four or five were seen. COUES, 1878, p. 610; not observed in the Red River region, first noted at Fort Berthold in 1874. COUES, 1897, p. 16; on June 7, 1843. Audubon reported he saw Say's flycatcher near Mandan.

At the Agricultural College I saw a mounted specimen from Kenmare, collected July 17, 1913, by W. B. Bell.

This species was found only in the extreme west portions of North Dakota. It was first seen June 16, 1921, near Medora on the "Peaceful Valley Ranch," owned by the Honorable Carl Olsen. In ten days of field work here I saw but one, but at Williston, about seventy-five miles north, I found it to be more common and saw several on July 8, 1921.

176. *Nuttallornis borealis* (Swainson). Olive-sided Flycatcher.

HOFFMAN, 1882, p. 401; from Fort Berthold, McLean County, September, 1881.

I did not see this species in life, but there were fine mounted males and females in the Williams Collection, taken at Grafton, June 7, 1908. Mr. Russell Reid writes me as follows: "I found a dead one in Stony Point Slough, four miles northeast of Driscoll, Burleigh County, on September 22, 1917."

177. *Myiochanes richardsoni richardsoni* (Swainson). Western Wood Pewee.

COUES, 1878, p. 610; only noticed at Pembina, which is probably at or near its northwestern limit. A male was taken June 6, 1873. RIDGWAY, 1907, p. 523; nested in Rolette and Nelson counties, North Dakota. JUDD, 1917, p. 20; admitted to list, but data on this species is very incomplete. FREEMAN, 1919, p. 13; common summer resident, May 26.

At Devils Lake I first noted this species June 9, 1921, and it was only occasionally seen there later.

178. *Empidonax flaviventris* (W. M. and S. F. Baird). Yellow-bellied Flycatcher.

RIDGWAY, 1907, p. 550; breeding at Stump Lake, North Dakota. JUDD, 1917, p. 20; rare, breeding in Turtle Mountains.

I do not know of any other records for this species.

179. *Empidonax trailli trailli* (Audubon). Traill's Flycatcher.

COUES, 1878, p. 611; found this species common at Pembina during the first week in June, but not later than the 9th. Specimens were taken June 2 to 9, 1873. JUDD, 1917, p. 21; common migrant in the prairie region, breeds in Turtle Mountains; earliest migrants, May 8.

I first noted this species May 30, at Devils Lake and again at Cando, June 2, where it was quite common around Mr. Judd's grove. One was secured at Snyder Lake, Towner County, June 4, 1921. In 1921 several were seen at the Turtle Mountains, August 3 to 7.

180. *Empidonax trailli alnorum* Brewster. Alder Flycatcher.

RIDGWAY, 1907, p. 559; breeding at Pembina and in Towner County.

This is the only record known to the writer.

181. *Empidonax minimus* (W. M. and S. F. Baird). Least Flycatcher.

ALLEN, 1875, p. 62; common in the bottom lands of the Missouri at Fort Rice, 1873. A few were also seen on Heart River. COUES, 1878, p. 611; very abundant at Pembina, and found also in the Turtle Mountains, beyond which it was not seen. Specimens were secured at Pembina, June 2 to 24, 1873, and at the Turtle Mountains, August 8. Eggs were found June 13, 1873. HOFFMAN, 1882, p. 401; appeared to be common during the first part of September at Fort Berthold. JUDD, 1917, p. 21; tolerably common summer resident of Turtle Mountains and woods around Devils Lake. First seen June 4; eggs were found June 29.

I found this species common at Devils Lake after May 20, 1921, and at all the localities visited, even in small groves on the prairies. Like the other flycatchers, it is very beneficial, as it destroys many injurious insects.

182. *Otocoris alpestris praticola* Henshaw. Prairie Horned Lark.

JUDD, 1917, p. 21; tolerably common summer resident. FREEMAN, 1919, p. 13; permanent resident, nests before the last snows are gone.

Many horned larks were seen all over the state and some in the eastern part were noted as this species.

183. *Otocoris alpestris leucolæma* (Coues). Desert Horned Lark.

COUES, 1878, pp. 555-557; from the Red River west to the Rocky Mountains it breeds in profusion and during the greater part of the year is the most abundant and characteristic species of the prairie avifauna. Specimens were taken at Mouse River September 12 and October 1, 1873. HOFFMAN, 1882, p. 400; secured a number of specimens in the grassy areas near the stubble fields. It is more common after the 15th of September. COOKE, 1888, p. 156; breeds in North Dakota as far east as Devils Lake. COUES, 1897, p. 57; Audubon says on June 27, Harris shot two of what he calls the small shore lark, near Fort Union. RIDGWAY, 1907, p. 309; breeding in North Dakota. LARSON, 1913, p. 94; in McKenzie County becomes common in February after the first few warm days. JUDD, 1917, p. 21; this light-colored form is more common than *praticola*, but does not appear in the spring migrations until much later.

At Devils Lake I saw two birds which I referred to this species on May 6, 1921, but it was not as common as on the open prairies. At Medora it was almost the only bird seen on the high, barren prairies. It was also common at Williston and Bottineau.

184. *Otocoris alpestris hoyti* Bishop. Hoyt's Horned Lark.

BISHOP, 1896, p. 130; the type is an adult male, No. 1447, Cando, Towner County, North Dakota, April 22, 1895. L. B. B., collection of L. B. Bishop. LARSON, 1913, p. 94; occasionally seen during the winter in McKenzie County. JUDD, 1917, p. 21; common in flocks in late fall and late winter migrations, but classed as a winter resident. REID, 1921, p. 6; frequent during the winter months.

A mounted specimen is in the Williams Collection, but the species was not seen alive.

185. *Otocoris alpestris enthymia*⁶ Oberholser. Saskatchewan Horned Lark.

REID, 1921, p. 6; abundant in the fall and late winter, a few are probably with us throughout the year.

Mr. Russell Reid has given the author a photograph taken June 6, 1921, near Bismarck, of a female of this species on her nest. (See Plate III.)

186. *Pica pica hudsonia* (Sabine). Magpie.

BAIRD, 1858, p. 578; male taken at Fort Berthold, 1856, by Dr. Hayden. ALLEN, 1875, p. 61; not common. COUES, 1878, p. 607; no magpies seen in the Red River region. HOFFMAN, 1882, p. 400; rare, saw two individuals in the Bad Lands seven miles east of Fort Berthold about the 20th of September. COUES, 1893, p. 251; Lewis and Clark sent four magpies alive to President Jefferson from Fort Mandan on April 4, 1805; on April 14 they saw a number of magpies which built their nests of sticks in trees. COUES, 1897, p. 58; Audubon says on June 27, 1843, Bell saw some magpies: p. 63; on June 25, Squires saw a great many about 15 miles from Fort Union. RIDGWAY, 1904, p. 290; breeding at Fort Berthold, McLean County. THWAITES, 1906, p. 31; on July 9, 1833, Maximilian records killing his first magpie near Fort Union: p. 215; on November 5, 1833, he saw many magpies, one so tame it settled on the rudder of the boat. LARSON, p. 94; a common resident, will eat any kind of flesh. BAILEY, 1918, p. 176; has been recorded at Creel Bay, Devils Lake, which is its eastern limit. FREEMAN, 1919, p. 13; sometimes a winter visitor, seen near Casselton and Leonard, Cass County.

⁶ Oberholser, *Proc. U. S. Nat. Mus.*, XXVI, June 9, 1902, pp. 807-817. (Revised as a subspecies) *Auk*, Vol. XXXVI, 1919, p. 269.

The Williams Collection contains a mounted specimen taken at Grafton January 2, 1918, and there is another Grafton record of December 18, 1920. At Bisbee, Towner County, I saw a mounted bird taken in the Turtle Mountains. The species was seen in the field only at Medora, June 14, 1921.

A family of five had wintered in the oak forest on the Rock Island Military Reservation at Devils Lake, 1920-21, where they were frequently seen by Captain Lonnevik. They were seen also as late as April, 1921, by Mr. Way at his home on the west side of Creel Bay, Devils Lake. Mr. Alfred Eastgate reports that they have become more common in the eastern part of the state since 1911. It is probable that they range as far east as the Red River.

In the Museum of Zoology are eight specimens sent in the flesh from Fort Totten, North Dakota, taken January and February, 1922, by F. W. Triska.

The species is considered very injurious, as it destroys eggs and young birds of all kinds, including poultry. I was also told of many instances where they had eaten great holes on the backs of living sheep, cattle and horses.

187. *Cyanocitta cristata cristata* (Linnæus). Blue Jay.

COUES, 1878, p. 607; not seen west of Pembina, where it was very abundant. Specimens were taken June 2, 1873. JUDD, 1917, p. 21; tolerably common migrant of the prairies; nests in some numbers in the Turtle Mountains.

On August 14, 1920, a family of five were seen at the water tank on the Rock Island Military Reservation. A few are said to winter in the vicinity. In 1921 the species was first seen on May 19 near the home of Mr. Way on the west side of Creel Bay. On July 13, 1921, one was seen near Bottineau, my most northern and western record for the species. It was quite common along the Red River at Grand Forks, July 21, 1921. A specimen in the Museum of Zoology was taken February 20, 1922, at Fort Totten by F. W. Triska.

It is an injurious species, destroying many bird eggs and young birds.

188. *Perisoreus canadensis canadensis* (Linnæus). Canada Jay.

JUDD, 1917, p. 21; rare, found both summer and winter in Turtle Mountains.

The species was not seen in the field. Mr. Alfred Eastgate reports that they bred in the Turtle Mountains in 1902 and were common during the winter. He also saw them at Stump Lake in October, 1912. A mounted specimen with no data is in the University of North Dakota Museum. One in the Williams Collection was taken at Grafton, May 30, 1920. Mr. Henry Williams told me that they came to Grafton for the first time November 28, 1919, and had been quite common since.

189. *Corvus corax principalis* Ridgway. Northern Raven.

ALLEN, 1875, p. 61; more or less common from the Missouri to Montana, being seen almost daily. COUES, 1878, p. 607; occasionally observed. HOFFMAN, 1882, p. 400; but rarely seen during my stay at Fort Berthold, September, 1882. S. C. C., 1887, p. 414; ravens occur near Bismarck. COUES, 1897, p. 28; Audubon says at Fort

Union on June 12, 1843, he saw a wolf drive four ravens away from a sand-bar: p. 80; July 7, he shot one near the Fort. THWAITES, 1906, p. 212; November 2, 1833, below Fort Union, Maximilian saw ravens along the Missouri River. JUDD, 1917, p. 21; very rare, if it occurs at all. FREEMAN, 1919, p. 13; has been reported at Fargo.

There is a mounted specimen in the museum of Fargo College. Mr. Henry Williams saw one at Grafton, June 15, 1921, and Mr. Alfred Eastgate in a recent letter tells of a raven killed in the Turtle Mountains, November, 1883.

Apparently, this is an extremely rare species in North Dakota at the present time.

190. *Corvus brachyrhynchos brachyrhynchos* Brehm. Crow.

COUES, 1878, p. 606; not very common in the region, though there were a good many along the Mouse River. COUES, 1897, p. 36; June 15, Audubon says both the common crow and raven are found at Fort Union. (This is the only North Dakota record noted by Audubon, and it may have been the western species, *hesperis*, as it occurs in Montana.) THWAITES, 1904, p. 141; H. M. Breckenridge reports seeing crows on the Upper Missouri in the summer of 1811. JUDD, 1917, p. 21; a tolerably common summer resident.

The species was found to be quite common at Devils Lake and in all parts of the state visited. The status of this bird is in much dispute, for while it no doubt does much damage to nesting birds, it also eats many injurious insects and mammals. I consider it on the whole injurious.

191. *Corvus brachyrhynchos hesperis* Ridgway. Western Crow.

HOFFMAN, 1882, p. 400; found singly and in small flocks the early part of September, but about the 20th large flocks were seen flying over the village and down the river. RIDGWAY, 1904, p. 271; breeding; specimens from Souris River.

The crows seen in western North Dakota are no doubt referable to this subspecies, as it is common in Montana.

192. *Nucifraga columbiana* (Wilson). Clarke's Nutcracker.

The Williams Collection contains a mounted specimen taken at Bottineau September 17, 1919, by W. R. McIntosh. I heard of one in the Bad Lands along the Little Missouri River near Medora. This species must be considered as a rare straggler in North Dakota, although common in the mountains of Montana.

193. *Dolichonyx oryzivorus* (Linnæus). Bobolink.

COUES, 1878, pp. 599, 600; at Pembina in June bobolinks were breeding in large numbers on the open prairie adjoining the river. The species was traced westward quite to the Rocky Mountains. Specimens were taken at Pembina, June 5 to July 8, and Mouse River, August 16, 1873. COUES, 1897, p. 86; July 13, Audubon saw a flock of fifteen or twenty bobolinks and shot a male near Fort Union. JUDD, 1917, p. 21; common summer resident.

This species was rather common throughout the region studied, except at Medora and the Turtle Mountains.

194. *Molothrus ater ater* (Boddaert). Cowbird.

COUES, 1878, p. 600; nowhere found the cowbird more abundant than it is in summer throughout the region surveyed. Specimens were taken at Pembina, June 4

to July 8, 1873, and at Mouse River, August 9 and 22, 1873. HOFFMAN, 1882, p. 399; rather abundant and associated with flocks of red-winged and yellow-headed blackbirds. JUDD, 1917, p. 21; abundant summer resident.

Found in all parts of the state worked. It is a great menace to all small bird life because of its parasitical habit.

195. *Xanthocephalus xanthocephalus* (Bonaparte). Yellow-headed Blackbird.

ALLEN, 1875, p. 60; seen but three or four times in the whole journey. A small colony was found breeding near the point where they crossed the Big Muddy, Morton County, 1873. A small flock was seen once on the Heart River. COUES, 1878, p. 602; at Pembina, breeding abundantly in the prairie sloughs the last week in June. Specimens were taken at Pembina, June 17 to 27, Turtle Mountains, August 2, and Mouse River, August 13 to 22, 1873. HOFFMAN, 1882, p. 399; common in September. JUDD, 1917, p. 21; abundant summer resident, nests in colonies.

It occurs throughout the state in suitable habitats and is no doubt a very beneficial species. It was not common at Devils Lake, where it was first seen May 31, 1921. Later, on June 4, I saw a large colony near St. Johns, Rolette County. A specimen collected at Sweetwater Lake, Ramsey County, August 11, 1900, by Charles L. Cass is in the Museum of Zoology Collection, also a set of three eggs collected there May 30, 1900.

196. *Agelaius phoeniceus fortis* Ridgway. Thick-billed Red-wing.

COUES, 1878, p. 602; found only at Pembina, where it was not very common; a male and a female were taken there June 19, 1873. HOFFMAN, 1882, p. 400; abundant and associated with the two preceding species. COUES, 1897, p. 90; July 15, Audubon shot a common red-winged starling near Fort Union. OBERHOLSER, 1907, p. 335; male from Pembina, taken June 19, 1873. JUDD, 1917, p. 21; common summer resident. FREEMAN, 1919, p. 14; very common summer resident.

All the above listed notes were given under the eastern species name, *phoeniceus phoeniceus*, but *fortis* is doubtless the only one in North Dakota. Mr. Russell Reid writes that he collected this species May 9, 1920, at Bismarck and sent it to the United States Biological Survey, where it was determined by H. C. Oberholser as the thick-billed red-wing.

It was found to be rather common at all the places visited. The earliest record was May 9, 1921, at Devils Lake. It was not as common at Bottineau as Brewer's blackbird.

197. *Sturnella neglecta* Audubon. Western Meadowlark.

BAIRD, 1858, p. 539; a male from Fort Union taken June 30, 1843, by J. J. Audubon. COUES, 1878, p. 603; all the meadow larks observed in this region, where the fauna is so thoroughly eastern, were typical *neglecta*. Specimens were taken June 5 to 30 at Pembina and July 20 to August 2, 1873, at Turtle Mountains. HOFFMAN, 1882, p. 400; but two individuals observed. COUES, 1897, p. 67; June 29, Audubon killed a female meadow lark [near Fort Union], the first noted in this country.

This species was common and generally well distributed over the state. An egg in the Museum of Zoology Collection was taken June 14, 1900, by Charles L. Cass near Sweetwater Lake. It is a very beneficial bird, destroying numerous quantities of injurious insects. Its song is different, but no more beautiful than that of the eastern bird.

198. *Icterus spurium* (Linnæus). Orchard Oriole.

ALLEN, 1875, p. 60; a few pair seen near the second crossing of the Heart River, July 5, 1873, were the only ones met with. COUES, 1878, p. 604; one specimen at Pembina, the only locality where it was observed, June 6, 1873. ABBOTT, 1880, p. 984; not common near Pembina in July, 1879. RIDGWAY, 1902, p. 276; southern North Dakota. JUDD, 1917, p. 21; rare on the prairie, found breeding around the large lakes to the south; not found in the Turtle Mountains. FREEMAN, 1919, p. 14; rare.

The species was not seen in life, but there is a mounted specimen in the Agricultural College Museum taken at Hankinson, Richland County, July 23, 1912, by W. B. Bell, and another in the Williams Collection taken at Grafton, July 30, 1904. Mr. Russell Reid found a nest on July 20, 1919, and saw three birds June 4, 1921, near Bismarck.

199. *Icterus galbula* (Linnæus). Baltimore Oriole.

COUES, 1878, p. 604; abundant at Pembina, the only locality where it was found. Specimens were taken from June 2 to July 8, 1873. ABBOTT, 1880, p. 984; generally common at Pembina in July, 1879. JUDD, 1917, p. 22; tolerably common migrant over prairies, nesting in timber on shores of large lakes and in the Turtle Mountains. FREEMAN, 1919, p. 14; a common summer resident, May 14.

This was a very common species at Devils Lake after May 20, 1921, and it was found in all the localities worked, although it was more common in the eastern part of the state. The orioles are very beneficial in their food habits.

200. *Icterus bullocki* (Swainson). Bullock's Oriole.

ALLEN, 1875, p. 60; more or less frequent along all the wooded portions of the streams. Observed at Fort Rice in 1873, and on the Heart River. BENDIRE, 1895, p. 486; Bullock's oriole ranges east to western North Dakota. SCHMIDT, 1920, p. 313; central North Dakota.

This species is not noted in many of the state lists, and it was with pleasure that I secured a pair of these birds in a small grove of cottonwoods at the edge of the town of Medora on June 14, 1921. These were the only ones seen, although I worked in the region for ten days.

201. *Euphagus carolinus* (Müller). Rusty Blackbird.

COUES, 1878, p. 605; enters Dakota from the north in September. THWAITES, 1905, p. 385; Maximilian records seeing this species at Fort Union, June 24, 1833. JUDD, 1917, p. 22; very common migrant, arrives the first week in May. FREEMAN, 1919, p. 14; transient visitant, April 22.

At Grafton it was nesting commonly at the edge of small sloughs along the railroad north of the city. Mr. Williams said he had found many nests at that place. At the time of my arrival, July 24, the young were flying with the adults.

202. *Euphagus cyanocephalus* (Wagler). Brewer's Blackbird.

ALLEN, 1875, p. 60; immense flocks in September, 1873, along the Heart and James rivers. COUES, 1878, p. 605; the characteristic blackbird of the whole region in summer. Hundreds spend this season at Fort Pembina and it is no less common at Fort Buford. Specimens were taken at Pembina, June 14 to 24, and at Mouse

River, September 16 to October 3, 1873. HOFFMAN, 1882, p. 400; several specimens from the flocks of blackbirds. COUES, 1897, p. 48; Audubon says Harris and Bell brought in three or four blackbirds nearly allied to the rusty grackle, but with a much shorter and straighter bill. Dr. Coues in a foot-note says this is *Quiscalus breweri* of Audubon. It was new to our fauna when thus dedicated to his friend, Dr. Thomas M. Brewer, of Boston, but had already been described by Wagler from Mexico as *Psarocolius cyanocephalus*. JUDD, 1917, p. 22; a few pair usually breed on the outskirts of the Turtle Mountains.

I first saw this species in the Turtle Mountains on June 5, 1921; later, June 14, I found it to be common at Medora. The second week in July it was seen at Bottineau. Numbers of adults and young were at Grafton, July 24 and 25, 1921, and Mr. Williams told me that the species nested commonly near the town.

203. *Quiscalus quiscula æneus* Ridgway. Bronzed Grackle.

COUES, 1878, p. 606; abundant at Pembina, where it was breeding in June in the hollows of trees. Occurred sparingly along Mouse River in the fall, October 3, 1873, and at Pembina, June 4 to 22, 1873. HOFFMAN, 1882, p. 400; several flocks pass across the village each day from the agency fields to the ponds of water west of the settlement. JUDD, 1917, p. 22; tolerably common summer resident.

It was common at Devils Lake after May 3, 1921, and also throughout the state. On July 11, 1911, Mr. Henry Williams shot a bird at Bottineau that had a band on the leg (No. 431). This species, like all the blackbirds, is very beneficial in its food habits.

204. *Hesperiphona vespertina vespertina* (W. Cooper). Evening Grosbeak.

JUDD, 1917, p. 22; rare straggler, only two or three records in a number of years in early spring. FREEMAN, 1919, p. 14; irregular winter visitant. Fairly common the last few years in January, February, and March.

There is a mounted specimen in the Agricultural College Museum and one in the Williams Collection, both taken at Grafton, December 20, 1908, by Henry Williams, who reports that the species is common each winter, feeding on the seeds of the box elder.

205. *Pinicola enucleator leucura* (Müller). Pine Grosbeak.

JUDD, 1917, p. 22; irregular winter visitant in small flocks. FREEMAN, 1919, p. 14; rare winter visitant, April 2.

The only specimens I saw with data were in the Williams Collection, and a female in the Agricultural College Museum at Fargo, both taken at Grafton, January 4, 1910, by Henry Williams.

206. *Carpodacus purpureus purpureus* (Gmelin). Purple Finch.

COUES, 1874, p. 106; found breeding in the Turtle Mountains, North Dakota, in July. COUES, 1878, p. 577; found in small numbers in the Turtle Mountains during the latter part of July; doubtless breeds in this locality; a female was taken July 28, 1873. JUDD, 1917, p. 22; rarely seen on the prairies. Breeds in the Turtle Mountains.

The Williams Collection contains a mounted specimen taken at Grafton, May 27, 1909.

207. *Loxia curvirostra minor* (Brehm). Crossbill.

JUDD, 1917, p. 22; rare visitor, a juvenile specimen taken in August, 1891.

The only specimen I saw with data was in the Williams Collection, taken at Grafton, June 18, 1910, by Mr. Williams. Mr. Russell Reid, in a letter of January 4, 1922, says he saw the American crossbill at Bismarck in September, 1919.

208. *Loxia leucoptera* Gmelin. White-winged Crossbill.

JUDD, 1917, p. 22; small flock seen in latter part of July, 1895.

There is a mounted specimen in the Williams Collection taken at Grafton, July 23, 1905, and one in the Agricultural College Museum at Fargo, labelled November 1, 1919, J. H. Phelps. Professor Daniel Freeman, of Fargo College, has written me that in January, 1919, a flock of five to seven were seen along the Red River. Mrs. Dana Wright, of Jamestown, in a letter to Professor Freeman tells of the species nesting in late May and early June, 1894, near Jamestown. Mrs. Wright reports further that they nested there for several years afterward, in the box elder trees, where she saw one May 10, 1921.

209. *Acanthis hornemanni exilipes* (Coues). Hoary Redpoll.

JUDD, 1917, p. 23; rare winter visitant, usually found in flocks of the common redpoll.

The species was not seen in the field, nor are there specimens in the state collections.

210. *Acanthis linaria linaria* (Linnæus). Redpoll.

SCHMIDT, 1904; a migrant, all sections. THWAITES, 1906, p. 209; October 31, 1833, Maximilian records flocks of redpolls near Fort Union, Williams County, also at Fort Clarke in winter. LARSON, 1913, p. 94; rare, two seen February 8, 1913, northern McKenzie County. JUDD, 1917, p. 23; common winter visitant and migrant in spring and fall. FREEMAN, 1919, p. 14; common winter visitant at Fargo.

There is a specimen in the Williams Collection labelled January 6, 1914. It seems to be a common winter resident.

211. *Astragalinus tristis tristis* (Linnæus). Goldfinch.

COUES, 1878, p. 577; noted only at Pembina; a male taken June 4, 1873. JUDD, 1917, p. 23; tolerably common, breeds in the Turtle Mountains. FREEMAN, 1919, p. 14; very common in timber and weeds, May 14.

I saw the species at Devils Lake on May 25 and found it to be quite common throughout the state.

212. *Spinus pinus* (Wilson). Pine Siskin.

The Williams Collection contains a specimen taken May 21, 1914, and Mr. Reid writes me that he saw four on the State Capitol grounds on May 24, 1921. I saw a small flock or family near Lake Upsilon, Turtle Mountains, on August 3, 1920; these were the only ones noted in life.

213. *Plectrophenax nivalis nivalis* (Linnæus). Snow Bunting.

THWAITES, 1906, p. 233; at Fort Clarke in winter of 1833-4, Maximilian saw flocks feeding on seeds of grass. LARSON, 1913, p. 94; common in winter on the prairies in McKenzie County, gathering in immense flocks. JUDD, 1917, p. 23; abundant migrant; winter resident some years; usually arrives from the north early in October and last seen early in May.

Two mounted specimens were examined, one in the Williams Collection with the date of December 24, 1906, and one without data in the Agricultural College Museum.

214. *Calcarius lapponicus lapponicus* (Linnæus). Lapland Longspur.

COUES, 1878, p. 578; a single specimen secured at Mouse River, October 1, 1873. LARSON, 1913, p. 94; occasionally seen during the winter, but becomes more common in February in McKenzie County. JUDD, 1917, p. 23; abundant migrant, seen in flocks of hundreds both in spring and fall.

The Williams Collection contains mounted specimens taken March 15 and April 22, 1913, at Grafton, and the Museum of Zoology contains a male and female collected at the same place, on March 15, 1913, by H. V. Williams.

215. *Calcarius pictus* (Swainson). Smith's Longspur.

COUES, 1878, p. 579; observed only on one occasion in company with the chestnut-collared and Lapland longspurs at Mouse River. A male and a female were taken October 1, 1873. JUDD, 1917, p. 23; common migrant, usually feeding on stubble; not often seen on the grass of the prairie or in the wooded sections.

The Williams Collection contains a bird labelled October 5, 1914, taken at Grafton.

216. *Calcarius ornatus* (J. K. Townsend). Chestnut-collared Longspur.

BAIRD, 1858, p. 435; a male taken at Fort Union, June 21, 1843, by J. J. Audubon. ALLEN, 1875, p. 55; abundant from Fort Rice on the Missouri River to the Yellowstone. COUES, 1878, p. 579; not noticed in the valley of the Red River, but found in profusion after passing to the westward of the Pembina Mountains to the Rockies. Many taken from July 14 to September 8 in North Dakota. HOFFMAN, 1882, p. 398; apparently not rare, noticed in the stubble-fields, middle of September. CURRIE, 1892, pp. 243-244; first observed April 22, and sets of eggs found from the last of May to July 30. I think two broods are raised each season. In Ramsey County this species is associated with McCown's longspur. ABBOTT, 1916, No. 94, p. 3; encountered everywhere throughout Pierce and Benson counties.

This species was breeding commonly in the prairies about Cando, June 2, and north to the United States boundary line, June 4, 1921. They were not seen in the Devils and Stump lakes region nor on the prairies about Medora, but at Williston, seventy-five miles north, many were found on July 8, and about Bottineau, July 10 to 17, they were very common. On July 11 I saw a nest with five young birds, fourteen miles west of Bottineau, built in a wheat field at the edge of a state road. Most of the nests were found in old prairie pastures or along the side of the road, where the males were very conspicuous, soaring near the nesting site and singing as they soared, then dropping to the ground with set wings.

217. *Rhynchophanes mccowni* (Lawrence). McCown's Longspur.

ALLEN, 1875, p. 56; in considerable abundance from the Missouri to the Yellowstone. In September, 1873, the prairies were alive with immense flocks, some of thousands of individuals. HOFFMAN, 1882, p. 398; less common than the preceding species. ABBOTT, 1916, p. 3; less common, but its song more pleasing than the chestnut-collared longspur. JUDD, 1917, p. 23; has become more and more rare as the country has settled, until now, 1910, it is rarely seen. FREEMAN, 1919, p. 14; transient visitant, May.

This species was not observed in life, although I visited the high, dry prairie benches which it prefers. Mr. Eastgate, of Bottineau, told me that it bred west of the Mouse River in the northwestern part of North Dakota. In the Museum of the Agricultural College at Fargo I saw a skin taken at Sentinel Butte, August 4, 1913, by W. B. Bell, and there is a skin in the Museum of Zoology Collection from Chief Mountain, North Dakota, August 15, 1874, collected by Dr. Elliott Coues.

All of the longspurs are very beneficial and destroy great quantities of weed seeds and injurious insects.

218. *Proocetes gramineus confinis* (Baird.) Western Vesper Sparrow.

COUES, 1878, p. 589; extends over the whole region explored. Specimens were taken at Pembina, June 5 to 19; Turtle Mountains, July 20 to August 2; Mouse River, August 30; and Long Coteau River, September 8, 1873. HOFFMAN, 1882, p. 398; rather common, many killed by the Indian boys with bow and arrows at Fort Berthold in September. COUES, 1897, p. 21; on June 9 Harris and Bell shot some bay-winged buntings near the mouth of the Little Missouri. RIDGWAY, 1901, p. 184; breeding in middle North Dakota. JUDD, 1917, p. 23; intermingling with the true vesper, if not confounded at times with it.

This was a common species at Devils Lake on my arrival, May 3, 1921, and later at all the localities worked. It is a very beneficial species in its food habits.

219. *Passerculus sandwichensis alaudinus* Bonaparte. Western Savannah Sparrow.

COUES, 1878, p. 588; breeds in profusion throughout the region. Specimens were taken at Pembina, June 2 to 14; Turtle Mountains, July 20 to August 8; and Mouse River, September 27, 1873. JUDD, 1917, p. 23; common summer resident, nesting in all suitable localities.

At Devils Lake this was a common breeder, especially fond of the vicinity of water. It was not seen at Medora or Williston, but was at Bottineau on July 11, 1921.

220. *Ammodramus bairdi* (Audubon). Baird's Sparrow.

BAIRD, 1858, p. 441; records the type, taken at Fort Union, Williams County, July 26, 1843, by J. J. Audubon. ALLEN, 1875, p. 57; rather frequent in the moist hollows from the Missouri westward to the Little Missouri. A single nest, the first one known, was found July 1, near Heart River. It was of dry grass, placed on the ground, and contained four eggs. COUES, 1878, p. 585; not met with along the Red River, but from the Pembina Mountains to the prairie beyond, in some particular spots it outnumbered all the other birds together. First taken July 14, 1873, twenty miles west of Pembina Mountains and from there to the Mouse River, October 1, 1783. COUES, 1897, p. 116; Audubon says on July 26, 1843, Bell shot a male

and a female. Audubon named this species after his young friend, Spencer F. Baird. Coues says special interest attaches to this case, for the bird was not only the first one ever dedicated to Baird but was the last one named, described and figured by Audubon, and the plate of it completes the series of five hundred plates in his octavo edition of *Birds of North America*. BENT, 1901, p. 329; Baird's sparrows were scattered about over the prairie. ABBOTT, 1916, No. 94, p. 4; a weedy stretch of prairie was the one place where Baird's sparrows were common; there were a dozen trilling males in the space of forty acres. JUDD, 1917, p. 23; common summer resident.

The Agricultural College Museum has a bird without data, and the Williams Collection contains one collected October 7, 1914.

On June 4, 1921, Mr. Elmer Judd and I made a long trip by automobile north from Cando to Snyder, Rock, and other small lakes. We were in quest of this species, but it was not until passing many of their old haunts that we at last found a male singing by the roadside near St. Johns. From here we drove north to the United States boundary line, and there saw our second bird. These were the only specimens seen by me in life.

221. *Ammodramus savannarum bimaculatus* Swainson. Western Grass-hopper Sparrow.

ALLEN, 1875, p. 57; common at intervals from the Missouri to Montana. BAILEY, 1916, p. 16; mentions the song of the grasshopper sparrow in the Devils Lake region. JUDD, 1917, p. 23; not common, but probably breeds. FREEMAN, 1918, p. 14; fairly common summer resident.

In 1920 this species was seen but once, August 9, in a prairie pasture near Bottineau. On June 17, 1921, I secured a fine specimen on a high prairie plateau in the Bad Lands a few miles north of Medora.

222. *Passerherbulus henslowi occidentalis* (Brewster). Western Henslow's Sparrow.

ABBOTT, 1880, p. 984; found near Pembina, July, 1879. COUES, 1897, p. 4; Bell shot a bunting which resembles Henslow's, but we have no means of comparing it at present. SCHMIDT, 1904; nests in central and eastern part of the state. SCHMIDT, 1920, p. 320; summer resident.

The species was not seen in the field, nor are there specimens in any of the collections in the state that I examined.

223. *Passerherbulus lecontei* (Audubon). Leconte's Sparrow.

COUES, 1878, p. 587; a small colony was near the Mouse River on August 9, 1873, and with great difficulty five specimens were secured; later, September 9, the bird was found again and a sixth specimen secured at Long Coteau River. ABBOTT, 1880, p. 984; very common in sloughs near Pembina, July, 1879. ALLEN, 1886, pp. 489-490; as is well known, Leconte's sparrow was described by Audubon in his *Birds of America*, VII, p. 338, Pl. 488, from a specimen obtained on the Upper Missouri in 1843. Audubon says he procured several specimens and mentioned especially one, a fine male, shot by J. G. Bell on the 24th of May near Fort Union, North Dakota. A specimen in the Maximilian Collection in the American Museum of Natural History was no doubt taken by him on his sojourn at Fort Union ten years before. Audubon records this specimen as still in excellent condition. JUDD, 1917, p. 24; common migrant and thought to breed here.

In 1920 I collected an adult male and a juvenile on August 1. These were in a low meadow near the edge of Bluebill Lake, Turtle Mountains. On May 24, 1922, a fine female Leconte's sparrow was taken at Grafton by H. V. Williams.

224. *Passerherbulus nelsoni nelsoni* (Allen). Nelson's Sparrow.

COOKE, 1888, p. 192; Mr. Vernon Bailey has recently found it breeding at Devils Lake, North Dakota. ROLFE, 1899, pp. 356-357; on June 14, 1899, the first United States nest was taken with both birds and five eggs at Devils Lake, North Dakota. BOWMAN, 1904, pp. 385-386; a nest with five eggs and the pair of birds taken June 12, 1902, near the city of Devils Lake, North Dakota. ABBOTT, 1916, p. 4; a low, wheezy song is conspicuous, vibrating in waves through the still air of a June sunset, the vesper recital of Nelson's sharp-tail on the Big Coulee marsh. BAILEY, 1916, p. 20; a few yards away came a Nelson sparrow, giving his loud flight song. JUDD, 1917, p. 24; tolerably common migrant, but rarely seen.

The Agricultural College Museum at Fargo contains a male taken July 22, 1912, at Hankinson, Richland County, by W. B. Bell. The species was seen but once alive, on June 29, 1921, in a dry slough in Ransom County, where one male was taken while singing.

225. *Chondestes grammacus strigatus* Swainson. Western Lark Sparrow.

BAIRD, 1858, p. 457; male and female taken at Fort Union, June, 1843, by J. J. Audubon. ALLEN, 1875, p. 58; one of the most abundant and generally diffused species. HOFFMAN, 1882, p. 399; from Fort Berthold. SCHMIDT, 1904; western part of state. THWAITES, 1906, p. 52; Maximilian records it from the Upper Missouri, July 25, 1833. FREEMAN, 1910, p. 14; summer resident; May 9.

The species was found to be a common resident about Anselm, Ransom County, June 28-30, 1921, and at Medora it was very abundant about the prairie pastures from June 16 to 25, and at Williston on July 7. I also found it common at Grafton, July 23, 1921.

These scattered records indicate its general distribution throughout the state.

226. *Zonotrichia querula* (Nuttall). Harris's Sparrow.

COUES, 1878, p. 594; a fine series was secured at Mouse River in September and October. The species arrived from the north September 18, and specimens were taken October 3, 1873. JUDD, 1917, p. 24; common migrant, arriving about May 1 and September 10. FREEMAN, 1910, p. 14; common transient visitant, May 6, September 19.

The Museum of Zoology Collection contains one specimen taken at Grafton, May 9, 1913, and a series of six taken there from September 27 to October 9, 1921, by Henry Williams.

The species was usually found with the white-crowned sparrow. On May 8, 1921, a bird was seen at the Biological Station and there were others there as late as May 14. Mr. William Shunk gives me a record of one at Anselm, Ransom County, May 5, 1916.

227. *Zonotrichia leucophrys leucophrys* (J. R. Forster). White-crowned Sparrow.

HOFFMAN, 1882, p. 399; several seen near Fort Berthold. JUDD, 1917, p. 24; tolerably common migrant in spring. FREEMAN, 1919, p. 14; transient visitant, common April 25. SCHMIDT, 1920, p. 321; a migrant and occasional summer resident.

An immature male of this species taken at Grafton, October 14, 1921, by Henry Williams, is in the Museum of Zoology Collection. Mr. William Shunk gave me a record for Anselm of May 12, 1916. The species was seen and one taken at Devils Lake, May 12, 1921, but had passed north by May 25.

228. *Zonotrichia leucophrys gambel* (Nuttall). Gambel's Sparrow.

COUES, 1878, p. 594; the white-crowned sparrows of the Mouse River country were of this variety instead of typical *leucophrys*, as shown beyond question by some of the specimens taken with perfect head dress from September 18 to 30, 1873.

Mr. Russell Reid reported that a specimen collected at Bismarck, September 26, 1921, was identified as this species by Dr. H. C. Oberholser.

229. *Zonotrichia albicollis* (Gmelin). White-throated Sparrow.

HOFFMAN, 1882, p. 399; a single individual was procured by an Indian boy near the village of Fort Berthold. JUDD, 1917, p. 24; tolerably common migrant on prairies, breeding in the Turtle Mountains. FREEMAN, 1919, p. 14; common transient visitant, April 22. SCHMIDT, 1920, p. 317; common migrant and occasional summer resident.

A few individuals were seen at Devils Lake, August 20, 1920. In 1921 it was present there upon my arrival, May 4, and continued common until May 30.

230. *Spizella monticola ochracea* Brewster. Western Tree Sparrow.

COUES, 1878, p. 590; no tree sparrows were observed in summer, but one was taken at the Mouse River, October 5, 1873. JUDD, 1917, p. 24; common migrant, spring and fall.

The species was not seen in life, but there is a mounted specimen in the Agricultural College Museum taken at Grafton, October 28, 1912, by Henry Williams.

231. *Spizella passerina arizonae* Coues. Western Chipping Sparrow.

ALLEN, 1875, p. 57; more or less common along the streams from the Missouri to Montana. HOFFMAN, 1882, p. 399; not uncommon in the underbrush of the river bottoms until September 20. JUDD, 1917, p. 24; not common, said to breed near Devils Lake.

Mr. William Shunk has a spring record for Anselm of March 26, 1916. The species was present at Devils Lake until July 20, 1920, and arrived there May 9, 1921. I am certain a few breed there, but it is rather rare. I saw two birds at Grafton, July 24, 1921.

232. *Spizella pallida* (Swainson). Clay-colored Sparrow.

BAIRD, 1858, p. 475; records one from Fort Union collected July 18, 1856, by Dr. Hayden, and another at the same place collected in 1843 by J. J. Audubon. ALLEN, 1875, p. 58; common inhabitant of the sage brush everywhere. COUES, 1878,

p. 591; very abundant from Pembina to the Mouse River, and specimens were taken from June 3 to September 22, 1873. COUES, 1897, p. 21; on June 9, Harris and Bell shot some *Emberiza pallida* near the Little Missouri. HOFFMAN, 1882, p. 399; not common near the village, but more so at Fort Stevenson, seventeen miles below. JUDD, 1917, p. 24; common summer resident, first seen early in May.

They were common at Devils Lake from May 7, 1921, throughout the summer. A set of four eggs in the Museum of Zoology Collection was taken June 20, 1900, at Sweetwater Lake by Charles L. Cass.

233. *Spizella pusilla arenacea* Chadbourne. Western Field Sparrow.

ALLEN, 1875, p. 57; frequent along Davis Creek in the Bad Lands of the Little Missouri, but not observed elsewhere. SCHMIDT, 1920, p. 321; a summer resident.

In Mr. William Shunk's list for Anselm, Ransom County, I found a spring date for this bird of April 4, 1916. I did not see one until June 16, 1921, when I secured specimens at Peaceful Valley Ranch near Medora. It is no doubt a rare or local bird in North Dakota.

234. *Junco aikeni* Ridgway. White-winged Junco.

RIDGWAY, 1901, p. 277; breeding in western North Dakota. FREEMAN, 1919, p. 14; one specimen observed. It is out of its range at Fargo. SCHMIDT, 1920, p. 331; a summer resident in western North Dakota.

235. *Junco hyemalis hyemalis* (Linnæus). Slate-colored Junco.

COUES, 1878, p. 593; appeared along the Mouse River about the middle of September in troops, and at once became abundant; specimens were collected there September 16 to October 5, 1873. JUDD, 1917, p. 24; common migrant, have seen them as early as February 26. FREEMAN, 1919, p. 14; very common, spring and fall; March 15. SCHMIDT, 1920, p. 319; common migrant and occasional permanent resident.

This bird was seen only at Devils Lake, May 4, 1921.

236. *Junco hyemalis montanus* Ridgway. Montana Junco.

I know of but one record for the state, a mounted bird in the Williams Collection, taken at Grafton, April 9, 1921.

237. *Melospiza melodia juddi* Bishop. Dakota Song Sparrow.

COUES, 1878, p. 506; it appears to be rare in this part of the country, a specimen was taken at Turtle Mountains, August 2, 1873. BISHOP, 1896, pp. 132-134; the type is an adult male, No. 1674, in the L. B. Bishop Collection, taken at Rock Lake, Towner County, May 11, 1895, by L. B. Bishop. JUDD, 1917, p. 24; this subspecies described and named by Dr. L. B. Bishop was first found in the Turtle Mountains.

This sparrow was common at the Turtle Mountains in July and August, 1920; also on June 4 and 5, 1921. It was also abundant at Devils Lake when I arrived May 2, 1921, and was found in all the localities worked.

238. *Melospiza lincolni lincolni* (Audubon). Lincoln's Sparrow.

BAIRD, 1858, p. 482; one from the Upper Missouri taken in 1843 by J. J. Audubon. COUES, 1878, p. 595; occurs in large numbers during the latter part of September and first of October along the Mouse River; specimens were collected there September 16 to October 5, 1873. JUDD, 1917, p. 24; tolerably common migrant, arrives from first to twenty-first of May. SCHMIDT, 1920, p. 321; a migrant.

It was seen only on May 5 and 6 near the Biological Station at Devils Lake, where one specimen was taken.

239. *Melospiza georgiana* (Latham). Swamp Sparrow.

COUES, 1878, p. 596; secured specimens from September 16 to October 5, 1873, on Mouse River. JUDD, 1917, p. 24; tolerably common migrant on the prairies, probably breeds in the Turtle Mountains, as a male in full song was taken about the middle of July.

There is a mounted specimen in the Agricultural College Museum taken at Grafton, September 30, 1912, by Henry Williams, and one taken September 14, 1914, at Grafton by Mr. Williams. In the Williams Collection at Grafton is a bird taken there April 25, 1913. A few individuals were seen in the marshes about Devils Lake and an immature male was taken August 19, 1920, at the Narrows.

240. *Passerella iliaca iliaca* (Merrem). Fox Sparrow.

JUDD, 1917, p. 24; rather rare migrant; earliest dates seen, April 20 and 29; seldom noted in the fall. SCHMIDT, 1920, p. 321; a migrant.

This species was not seen in life, but there is a mounted one in the Williams Collection taken at Grafton, June 28, 1904, by Mr. Williams.

The above species of sparrows are all very beneficial in their food habits, destroying immense quantities of weed seeds and many injurious insects.

241. *Pipilo erythrophthalmus erythrophthalmus* (Linnæus). Towhee.

COUES, 1878, p. 598; not uncommon about Pembina, where it was breeding in June. ABBOTT, 1880, p. 984; says he met the chewink but once, in July, 1879. JUDD, 1917, p. 24; rare, may be found breeding in the Turtle Mountains. FREEMAN, 1919, p. 14; probably a rare summer resident, May 16. SCHMIDT, 1920, p. 321; summer resident.

I saw this species in willow bushes near Bluebill Lake, Turtle Mountains, on August 1, 1920.

242. *Pipilo maculatus arcticus* (Swainson). Arctic Towhee.

BAIRD, 1858, p. 515; a male was taken at Fort Union in 1843 by J. J. Audubon. ALLEN, 1875, p. 59; a common inhabitant of the wooded bottomlands everywhere. COUES, 1878, p. 599; along the parallel of 49° this form becomes established at least as far east as the Mouse River, where a specimen was secured September 16, 1873. HOFFMAN, 1882, p. 399; frequently found in wooded bottomland near the agency. JUDD, 1917, p. 25; a rare straggler, one specimen taken. SCHMIDT, 1920, p. 321; summer resident west of central North Dakota.

This species was not seen until I reached Medora on June 14, 1921. It was common there and I am sure it nested, as it did also at Peaceful Valley Ranch, five miles north of Medora. It was also common about Williston, July 8 to 12, 1921.

243. *Cardinalis cardinalis cardinalis* (Linnæus). Cardinal.

McCLESNEY, 1878, p. 78; only of casual occurrence in this region. On May 25, 1877, a pair was seen to the east of the Post, and a male was seen several times in this region. [This Post or Fort was in Roberts County near the northeast corner of South Dakota, and this species no doubt occurs there rarely along the Red River Valley.] SCHMIDT, 1920, p. 321; casual summer resident.

In a recent letter from Henry Williams, of Grafton, Walsh County, he records the taking of a female cardinal, November 4, 1921, near that city, the "first and only one I ever heard of in the state." I know of no other records.

244. *Zamelodia ludoviciana* (Linnæus). Rose-breasted Grosbeak.

COUES, 1878, p. 598; breeding in abundance at Pembina; specimens taken June 2 to 25, 1873. JUDD, 1917, p. 25; tolerably common summer resident in the Turtle Mountains. FREEMAN, 1919, p. 14; very common summer resident where there are trees, May 12. SCHMIDT, 1920, p. 321; summer resident.

Mr. Russell Reid writes that he saw one in May, 1917, but has not seen them in the region of Bismarck since.

At Turtle Mountains I took an immature male, August 4, 1920. It was seen at Devils Lake on May 20, 1921, and remained a common summer resident.

245. *Zamelodia melanocephala* (Swainson). Black-headed Grosbeak.

BAIRD, 1858, p. 499; male from Fort Union, June 26, 1843, J. J. Audubon. ALLEN, 1875, p. 59; observed at frequent intervals along the wooded portions of the streams from the Missouri to the Yellowstone. COUES, 1897, p. 50; June 21 we shot a black-headed grosbeak at Fort Union. This is the only one noted by Audubon. RIDGWAY, 1901, p. 619; a specimen from Fort Union, North Dakota. SCHMIDT, 1920, p. 321; summer resident in western North Dakota.

Mr. Russell Reid writes me that he saw two birds and heard their singing in the Missouri River bottom near Bismarck on May 16, 1920, and observed another bird at the same place June 15, 1920.

This species seems to be a quite common summer resident in the western part of the state. It occupied the groves of cottonwoods along the Little Missouri near Medora, where I found a nest on June 23. On July 6 I found the species at Williston, on the Missouri River. Mrs. Grant Hayes saw a male at Grafton, January 3, 1922. This is the most eastern record I have for North Dakota, and this bird must be considered a straggler at a most unusual season of the year.

246. *Passerina cyanea* (Linnæus). Indigo Bunting.

JUDD, 1917, p. 25; rare, seen only occasionally. FREEMAN, 1919, p. 14; uncommon summer resident. SCHMIDT, 1920, p. 321; rare summer resident.

I did not see this species in life, but there was a skin at the Agricultural College Museum, and Professor George Miller, the Curator, told me he had seen birds near Fargo. Mr. Russell Reid writes that he saw one near the Missouri River on June 30, 1921. It doubtless occurs only as a rare straggler in the eastern part of North Dakota.

247. *Passerina amoena* (Say). Lazuli Bunting.

BAIRD, 1858, p. 505; male from Fort Union, June 26, 1843, by J. J. Audubon. ALLEN, 1875, p. 59; quite abundant on the Missouri near Fort Rice, Morton County, and met with occasionally westward. COUES, 1897, pp. 31, 67, 79; Audubon, 1843, says on June 14 he saw lazuli finches at Fort Union, also on June 29 and July 7: p. 4; Audubon records seeing many lazuli finches along the Missouri River in Mor-

ton County, June 4, 1843. THWAITES, 1905, p. 386; at Fort Union, in June, 1833. Maximilian records seeing the beautiful bluefinch (lazuli bunting) first described by Say. SCHMIDT, 1920, p. 321; a summer resident of western North Dakota.

This species was found only near Medora, where on June 14 I saw a pair. At Olsen's Peaceful Valley Ranch there were a few others, June 17 to 20, 1921. It may be extending its range eastward, as it is a common summer resident in western Montana.

248. *Spiza americana* (Gmelin). Dickcissel.

RIDGWAY, 1901, p. 173; from the Upper Missouri River. (Maximilian, Jour. für Orn., VI, 1858, p. 341.) JUDD, 1917, p. 25; rare, small flocks seen in 1891, is only record I have, three full-plumaged males being taken at that time in the southeastern part of Towner County on Big Coulee. REID, 1921, No. 1, p. 8; not known here as a resident until 1921, when it appeared in considerable numbers near Bismarck, moving in and settling in territory new to the species.

Mr. Reid writes me that he saw several birds on Burnt Creek on June 26 and 27, 1921, the first year he had seen it.

This species was found to be a common summer resident in Ransom County, June 25 to 30, 1921. At Williston, July 7, I took one specimen, and at Bottineau, July 11 to 15, 1921, found it not rare, although Alfred Eastgate told me he had never before seen it in the county.

249. *Calamospiza melanocorys* Stejneger. Lark Bunting.

ALLEN, 1875, p. 58; observed it first about fifty miles west of Fort Rice, from there to Montana abundant in certain localities, preferring wet prairies near streams. COUES, 1878, p. 597; the apparent absence of this species from the Red River region, with its abundance on the Missouri, is one of the strong marks of difference in the fauna of the two watersheds. COUES, 1897, p. 105; July 21, Audubon says he saw many black-breasted lark buntings and found a nest with five eggs near Fort Union.

I did not note this species in eastern North Dakota, but at Mandan, June 24, saw the first ones. It was not noted about Medora, on the Little Missouri, but was a common summer resident about Williston, July 5 to 10, 1921. It was also common at White's Ranch, fifteen miles southwest of Bottineau, where I saw large flocks of adults and young on August 9, 1920. These were feeding about the ranch buildings like English sparrows.

250. *Piranga erythromelas* Vieillot. Scarlet Tanager.

JUDD, 1917, p. 25; rare, seen only in the Turtle Mountains. FREEMAN, 1919, p. 15; summer resident; May 16.

I did not see this species in life, but there is one specimen in the Williams Collection, taken at Grafton, July 30, 1904, and another, taken there May 24, 1914, by Henry Williams, is now in the Museum of Zoology Collection. A mounted specimen is in the Agricultural College Museum, taken at Grafton, May 26, 1914, by Mr. Williams. This species must be considered as a rare one in eastern North Dakota.

251. *Progne subis subis* (Linnæus). Purple Martin.

BAIRD, 1858, p. 315; a male was taken at Fort Union, July, 1856, by Dr. Hayden. COUES, 1878, p. 572; one specimen taken July 23, 1873, breeding on the Turtle Moun-

tains. RIDGWAY, 1904, p. 53; breeding at Pembina River and the Turtle Mountains. JUDD, 1917, p. 25; common summer resident in the Turtle Mountains, nesting in hollow trees.

This species was common at Devils Lake, May 2, 1921, and later hundreds nested in boxes about the Chautauqua grounds and in the hollows of trees about the lake.

I did not see martins at Medora or Williston, but saw a few at Bottineau, July 10, 1921. Mr. Williams has a specimen taken June 10, 1905, at Grafton, where he says they are common.

These birds are most beneficial in their food habits, living entirely on insect life.

252. *Petrochelidon lunifrons lunifrons* (Say). Cliff Swallow.

COUES, 1878, p. 571; the most abundant, generally distributed, and characteristic species of the family in the region. Specimens were taken at Pembina from June 13 to July 7, 1873. HOFFMAN, 1882, p. 398; not common, several nests found in the cliffs seven miles below the village, Fort Berthold, McLean County. COUES, 1897, p. 66; on June 29 Audubon found a flock of cliff swallows endeavoring to build nests beneath the ledges of a clay bank: p. 176; August 2, Bell found on a cliff numbers of cliff swallows' nests, with the old ones feeding the young. This is very uncommon at this late season. JUDD, 1917, p. 25; common summer resident; first seen May 24.

The species was first seen at Devils Lake, May 20, 1921, but a great migration occurred May 29, when hundreds of swallows, including many of this species were noted near the Station.

253. *Hirundo erythrogastra* Boddaert. Barn Swallow.

COUES, 1878, p. 570; commonly observed during July and August at various points, but only one specimen was taken in North Dakota, at the Mouse River, August 30, 1873. JUDD, 1917, p. 25; common summer resident, first seen second week in May and as late as October 20.

This species was first seen at Devils Lake, May 14, 1921, but on May 29, in a great migration of swallows, there were hundreds of this species, and it was later found to be common throughout the state.

254. *Iridoprocne bicolor* (Vieillot). Tree Swallow.

COUES, 1878, p. 571; only observed at Pembina, where it was breeding in small numbers about the Fort; a specimen was taken there June 19, 1873. JUDD, 1917, p. 25; common summer resident of wooded regions, arrives the first week in May.

This species was at Devils Lake on my arrival, May 2, and bred in some numbers about the lake. I also found it at the Turtle Mountains on June 5, 1921, but it is only locally common throughout the state.

255. *Riparia riparia* (Linnæus). Bank Swallow.

COUES, 1878, p. 572; generally distributed along the line west of Pembina and one was taken there June 13, 1873. HOFFMAN, 1882, p. 398; a few noticed north of the village at the sand-banks where the river formerly ran. JUDD, 1917, p. 25; common summer resident of prairies; not noted at the Turtle Mountains. FREEMAN, 1919, p. 15; very common summer resident.

The bank swallow seems to occur very generally throughout the state. A large colony nested at the Narrows, Devils Lake, in July, 1920, and a

small colony nested in a bank at the side of the road near the State Fish Hatchery in the Turtle Mountains, July, 1920. It was first seen in 1921 at Devils Lake, May 10.

All of the swallows are very beneficial in their food habits, as they live entirely on insects.

256. *Stelgidopteryx serripennis* (Audubon). Rough-winged Swallow.

ALLEN, 1875, p. 54; a colony found breeding in a sand bluff near our crossing of the Big Muddy, Morton County. A number of nests were examined July 1, 1873. All contained newly-hatched young. ABBOTT, 1880, p. 984; one at Pembina, July, 1879. RIDGWAY, 1904, p. 59; breeding in North Dakota.

I did not identify any birds of this species in the field, although no doubt some were seen among the many bank swallows. It is so nearly like the bank swallow that it is hard to distinguish in life, and may be more common than the records show. Specimens are in the Museum of the Agricultural College at Fargo, labelled Walhalla, North Dakota, July 6, 1912, W. B. Bell, and I saw one in the Williams Collection at Grafton, taken there July 1, 1914, by Mr. Williams.

257. *Bombycilla garrula* (Linnæus). Bohemian Waxwing.

THWAITES, 1906, Vol. III, p. 44; Maximilian says on December 13, 1833, several birds of the species *Bombycilla garrula* were brought to us at Fort Clarke. LARSON, 1913, p. 94; shot a solitary male on November 12, 1912, in McKenzie County, North Dakota. JUDD, 1917, p. 25; irregular winter visitant in small flocks. FREEMAN, 1919, p. 15; winter visitant, was very common two or three years ago; March 15.

The species was not seen in life, but I saw several mounted birds in the state. There were specimens in the collection of Mrs. Lucia Olsen, of Medora, who told me that they were very common winter visitants and fed on the berries of the red cedar. I also saw mounted birds in the Williams Collection at Grafton, labelled February 7, 1912, and was told that it was a common winter resident there. Mr. Russell Reid writes that it was not often seen, but was very common during the winter of 1919-1920 near Bismarck. According to Miss Zella Colvin, a large flock of Bohemian waxwings spent several weeks in Grand Forks during the month of January, 1922, feeding on Russian olives.

258. *Bombycilla cedrorum* Vieillot. Cedar Waxwing.

COUES, 1878, p. 574; not seen at Pembina, but found at Mouse River, August 19 and Sept. 3, and at Long Coteau River, September 8, 1873. JUDD, 1917, p. 25; tolerably common summer resident of the Turtle Mountains.

I saw this species at Sully's Hill National Park on May 28, at Devils Lake July 21, at Williston July 6, and at Bottineau July 13, 1921. Mr. Russell Reid saw a large flock near Bismarck, June 4, 1920.

259. *Lanius borealis* Vieillot. Northern Shrike.

LARSON, 1913, p. 94; seen only a few times in McKenzie County. JUDD, 1917, p. 25; tolerably common, early spring and late fall migrant. FREEMAN, 1919, p. 15; occasional winter visitant, seen in January and December.

I did not see this species in life, but found mounted specimens in Mrs. Olsen's Collection at Medora, and one in the Williams Collection taken at Grafton, November 1, 1912, by Henry Williams. Mr. Russell Reid writes that a pair nested on the grounds of the State Penitentiary at Bismarck, in 1915 and 1916.

260. *Lanius ludovicianus excubitorides* Swainson. White-rumped Shrike.

COUES, 1878, p. 576; the characteristic species of the whole region explored. Specimens taken June 1 to 14 at Pembina, July 30 and 31, 1873, at Turtle Mountains. COUES, 1897, p. 122; July 20 a loggerhead shrike was shot near Fort Union. JUDD, 1917, p. 25; not at all common, have found them breeding on the shores of Lake Alice, Ramsey County.

The species was seen at Devils Lake on August 16, 1920, and on July 24, 1920, adults and nearly grown young were found at Stump Lake. In 1921 one was seen at Devils Lake on May 4, one near Cando on June 6, one at Medora on June 15, and another on June 23. Five were seen at Grafton on July 24, 1921.

261. *Lanius ludovicianus migrans* W. Palmer. Migrant Shrike.

H. C. Oberholser, Auk, Vol. XXXVII, No. 1, January, 1920, p. 136, records this specimen taken by H. V. Williams, of Grafton, North Dakota, on May 16, 1915.

In the Museum of Zoology there is a bird of this species, also taken at Grafton by Mr. Williams, on May 6, 1918.

262. *Vireosylva olivacea* (Linnæus). Red-eyed Vireo.

ALLEN, 1875, p. 54; common wherever there is timber. COUES, 1878, p. 574; abundant at Pembina, where it was breeding in June, and again near Fort Buford. Specimens were taken at Pembina, June 3 to 13. JUDD, 1917, p. 25; common summer resident of the Turtle Mountains.

This species was at Devils Lake, May 23, 1921, and it was quite common there as a summer resident. It was also common in the Turtle Mountains in August, 1920, and doubtless occurs in all suitable habitats throughout the state.

263. *Vireosylva philadelphica* Cassin. Philadelphia Vireo.

COUES, 1878, p. 575; it undoubtedly breeds about Pembina, where specimens were taken June 3, 1873. RIDGWAY, 1904, p. 152; breeding at Pembina in June. JUDD, 1917, p. 26; not uncommon as a summer resident of the Turtle Mountains.

I saw several in the Turtle Mountains on August 4, 1920. At Devils Lake it was not rare after May 23, 1921, and two were taken in the woods on the Rock Island Military Reserve.

264. *Vireosylva gilva gilva* (Vieillot). Warbling Vireo.

ALLEN, 1875, p. 54; common and generally distributed wherever there is timber. COUES, 1878, p. 575; observed in abundance at Pembina, where it was in full song and breeding in June. Specimens were taken there June 3 to 11, 1873. RIDGWAY, 1904, p. 154; breeding at Fort Rice and Pembina. JUDD, 1917, p. 26; not common, found nesting in wooded regions.

I found it first on May 19, 1921, at Devils Lake, where it was a common summer resident. It was common in Medora in the grove of cottonwoods along the Little Missouri, June 16 to 20, and was also seen at Williston and Bottineau. It no doubt occurs throughout the state where suitable habitats are found.

265. *Laniivireo flavifrons* (Vieillot). Yellow-throated Vireo.

JUDD, 1917, p. 26; rare, taken in July in the Turtle Mountains, juveniles seen.

Mr. Williams' Collection contains a specimen taken at Grafton, July 1, 1914. The only one seen at Devils Lake was taken in the woods of the Rock Island Military Reserve on August 19, 1920. It was not noted again until July 25, 1921, when one was taken at Grafton. Doubtless it is rare throughout the state.

266. *Laniivireo solitarius solitarius* (Wilson). Blue-headed Vireo.

COUES, 1878, p. 576; one specimen of this rather rare species was secured June 4, 1873, at Pembina, which is probably about its northern limit. SCHMIDT, 1904; eastern North Dakota, rare.

The only one seen was a mounted specimen in the Williams Collection taken at Grafton, May 6, 1921, by Mr. Henry Williams.

267. *Mniotilta varia* (Linnæus). Black and White Warbler.

ALLEN, 1875, p. 52; a few were seen near Fort Rice, Morton County, June 10 to 20, 1873. COUES, 1878, p. 563; a single specimen was taken June 9, 1873, at Pembina, where it probably breeds. JUDD, 1917, p. 26; tolerably common summer resident of the Turtle Mountains, first noted May 11. FREEMAN, 1919, p. 15; transient visitant, fairly common in spring migration, May 7.

The species was present at Devils Lake from August 20 to 22, 1920. These birds were probably on their way south. Specimens were taken at Lake Upsilon, Turtle Mountains, on July 31, 1920. At Medora, on June 22, 1921, a male was taken in a red cedar thicket at the edge of the Little Missouri, where it no doubt nested. A pair of the birds was seen at Turtle Mountains, near Bottineau, July 13, 1921. Mr. William Shunk gave me a record for Ransom County of May 13, 1916.

268. *Vermivora celata celata* (Say). Orange-crowned Warbler.

COUES, 1878, p. 564; observed during the fall migration in September along the Mouse River, where ten specimens were taken from September 16 to 30, 1873. JUDD, 1917, p. 26; tolerably common migrant, taken as early as May 8.

I did not see this species in life, but saw a mounted bird in the Williams Collection taken at Grafton, May 10, 1914. Mr. Williams told me that they were not common there either in the spring or fall.

269. *Vermivora peregrina* (Wilson). Tennessee Warbler.

BAIRD, 1864, p. 179; a male from the Upper Missouri, Dakota, 1843, collected by J. G. Bell. COUES, 1878, p. 563; after the first of June the heavy timber of the river bottom at Pembina was filled with birds. Of thirteen specimens secured June 2 and 3, 1873, only three were males, as the migration was nearly over. JUDD, 1917, p. 26; tolerably common migrant, seen the first of June.

A few on their way south were seen at Devils Lake on August 17 and 21, 1920. Some were also noted there after May 23, 1921. Mr. Williams' Collection contains a mounted bird taken at Grafton, May 24, 1921.

270. *Dendroica tigrina* (Gmelin). Cape May Warbler.

JUDD, 1917, p. 26; rare migrant, taken as early as May 13. FREEMAN, 1919, p. 15; transient visitant, sometimes seen May 19.

I did not see this species in life, but there is a mounted specimen in the Williams Collection taken at Grafton, June 5, 1920, by Henry Williams.

271. *Dendroica aestiva aestiva* (Gmelin). Yellow Warbler.

ALLEN, 1875, p. 52; abundant along the Missouri and Heart rivers, 1873. COUES, 1878, p. 565; this abundant species was observed at various points along the whole line and in the Missouri region. Specimens were taken at Pembina, June 2 to 6, and at Mouse River, August 23, 1873. JUDD, 1917, p. 26; common summer resident, nesting in the prairie region and the Turtle Mountains.

This species was common at Devils Lake after May 16, 1921. I found it at all the localities worked, and believe it is a summer resident in suitable habitats throughout the whole state.

272. *Dendroica caerulescens caerulescens* (Gmelin). Black-throated Blue Warbler.

This species is not given in any of the published lists nor did I see it in life, but I found a mounted specimen in the museum of the Agricultural College at Fargo with no data.

273. *Dendroica coronata* (Linnæus). Myrtle Warbler.

COUES, 1878, p. 565; not seen until the middle of September, when it made its appearance in abundance along the Mouse River, where specimens were taken September 16-18, 1873. JUDD, 1917, p. 26; the most abundant warbler during migration, seen last week in April. FREEMAN, 1919, p. 15; very common, April 8. BAILEY, 1920, p. 105; yellow-rumped warblers were seen at Sweetwater Lake about the middle of September, 1917.

I found this species May 3, 1921, on my arrival at Devils Lake, and until May 19. It occurs as a migrant only, in North Dakota.

274. *Dendroica magnolia* (Wilson). Magnolia Warbler.

SCHMIDT, 1904; from the Red River Valley. JUDD, 1917, p. 26; rare, several taken second week in May, 1895. Migrant only. FREEMAN, 1919, p. 15; sometimes seen, May 9.

The species was seen but twice, at Devils Lake on May 20 and 24, 1921. Mr. Reid writes that he has only one record, Bismarck, May 12, 1920. There is a mounted specimen in the Williams Collection taken at Grafton, May 25, 1921.

275. *Dendroica pensylvanica* (Linnæus). Chestnut-sided Warbler.

COUES, 1878, p. 566; one specimen only of this distinctively eastern species was secured at Pembina, June 3, 1873, and no indication of its occurrence west of the longitude of the Red River was found. JUDD, 1917, p. 26; common migrant over prairies, nests in Turtle Mountains. FREEMAN, 1919, p. 15; probably summer resident, May 28.

I saw several birds of this species at Devils Lake and took one on May 21, 1921. None were observed in other localities.

276. *Dendroica castanea* (Wilson). Bay-breasted Warbler.

JUDD, 1917, p. 26; very rare, only one authentic record, a male, taken May 11, 1895, on an island in Rock Lake, Towner County. FREEMAN, 1919, p. 15; transient visitant, not often seen, May 27.

I did not see this species in life, but at Fargo in the Agricultural College Museum is a mounted bird taken there May 28, 1906, by W. B. Bell. It doubtless occurs in North Dakota as a very rare migrant.

277. *Dendroica striata* (J. R. Forster). Black-poll Warbler.

JUDD, 1917, p. 26; equals, if not surpasses, in numbers the yellow-rumped warbler in the wooded district. FREEMAN, 1919, p. 15; transient visitant, May 9.

The species was seen on May 21, 1921, at Devils Lake, where it was quite common until May 30. The Williams Collection contains a specimen taken at Grafton, May 25, 1921, by Henry Williams. It occurs only as a migrant in North Dakota.

278. *Dendroica fusca* (Müller). Blackburnian Warbler.

JUDD, 1917, p. 26; given as rare by Bryant at Freshwater Lake. FREEMAN, 1919, p. 15; transient visitant, frequently seen; May 18.

I did not see this species in life, but saw a mounted specimen in the Williams Collection taken at Grafton, June 1, 1918, by Mr. Williams.

279. *Dendroica virens* (Gmelin). Black-throated Green Warbler.

FREEMAN, 1919, p. 15; transient visitant, few data; May 16.

The only record known to me for the state.

280. *Dendroica vigorsii* (Audubon). Pine Warbler.

SCHMIDT, 1904; migrant in the Red River Valley. SCHMIDT, 1920, p. 327; migrant.

The only references I find for the state.

281. *Dendroica palmarum palmarum* (Gmelin). Palm Warbler.

SCHMIDT, 1904; the Red River Valley. JUDD, 1917, p. 26; rare migrant, noted from first of May. FREEMAN, 1919, p. 15; sometimes seen along the river; May 13.

The species was seen from May 10 to 18, 1921, at Devils Lake, where it was found on the high, stony beaches feeding among the silver-leaf bushes. A specimen taken at Grafton, May 6, 1921, by Henry Williams, is in the Williams Collection.

282. *Seiurus aurocapillus* (Linnæus). Oven-bird.

ALLEN, 1875, p. 52; abundant in the timbered bottom lands about Forts Rice and Abraham Lincoln, Morton County, and observed on Heart River, 1873, but not seen elsewhere on the trip. JUDD, 1917, p. 26; rare summer resident of the Turtle Mountains. FREEMAN, 1919, p. 15; probably summer resident, May 12.

The species was seen only at Cando, Towner County, June 2, 1921, in a small grove near the home of Mr. E. T. Judd. It must occur only locally as a rare summer resident in North Dakota.

283. *Seiurus noveboracensis notabilis* Ridgway. Grinnell's Water-Thrush.

JUDD, 1917, p. 26; common at Rock Lake between May 9 and June 20, also in the Turtle Mountains during July, where a nest with three eggs was found July 15, 1916. FREEMAN, 1919, p. 15; occasional transient visitant, May 19.

Mr. Reid reports that he saw large numbers of these birds on Burnt Creek, Burleigh County, May 15, 1917. The species was at Devils Lake from May 10 to 17, 1921. It was also rather common and bred at Lake Upsilon, Turtle Mountains, July 30 to August 7, 1920, as a juvenile bird was taken there on July 30, 1920.

284. *Oporornis agilis* (Wilson). Connecticut Warbler.

ABBOTT, 1880, p. 984; one taken July 11, 1879, near Pembina.

I find but one published record for North Dakota. Mr. Alfred Eastgate, who lived for several years at Stump Lake, is my authority for two specimens taken there May 3, 1903.

285. *Oporornis philadelphia* (Wilson). Mourning Warbler.

COUES, 1878, p. 568; breeding abundantly at Pembina, where specimens were taken June 2 to 30, 1873. JUDD, 1917, p. 27; tolerably common migrant on the prairies and one of the most common summer residents of the Turtle Mountains. A brood of young just from the nest was seen in July. FREEMAN, 1919, p. 15; transient visitant, May 26.

I saw this species first at Devils Lake on May 23, 1921, in a small willow thicket near the edge of Creel Bay, and on June 3 collected two in a small poplar grove near Cando, Towner County. At Grafton I saw a mounted specimen in the Williams Collection taken there May 24, 1915.

286. *Geothlypis trichas trichas* (Linnæus). Maryland Yellow-throat.

RIDGWAY, 1902, p. 665; records this species from Fort Rice and Pembina, North Dakota. He also examined one specimen from North Dakota.

287. *Geothlypis trichas occidentalis* Brewster. Western Yellow-throat.

COUES, 1878, p. 567; observed at Pembina and Turtle Mountains and specimens collected at Pembina, June 5, and Turtle Mountains, July 28, 1873. RIDGWAY, 1902, p. 669; from the Missouri River, North Dakota. JUDD, 1917, p. 27; common summer resident of prairies and the Turtle Mountains; earliest date, May 3.

I first noted this species May 20, 1921, at Devils Lake. Later it was seen at all the localities worked, and is no doubt locally common throughout the state. Mr. Henry Williams took a male at Grafton, May 24, 1921.

288. *Icteria virens longicauda* Lawrence. Long-tailed Chat.

ALLEN, 1875, p. 45; at Fort Rice, Morton County, this species was very abundant the third week in June, 1873. It was common in the woodlands along the Missouri, also seen on Heart River and the Little Missouri. COUES, 1878, p. 569; up the Missouri to beyond the mouth of the Yellowstone. THWAITES, 1906, p. 31; near Fort Union, July 8, 1833, Maximilian records the yellow-breasted chat singing among the thickets, especially in the rose bushes. SCHMIDT, 1904; lists it as occurring in the western part of North Dakota, but gives no data.

I first found this species on June 16, 1921, at the Peaceful Valley Ranch in willow thickets along the Little Missouri River, but later, June 23, I

found it at Medora in the thick brush of a cottonwood grove. I did not see it at Williston, as the thickets and low places were flooded and could not be worked.

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

JUDD, 1917, p. 27; rather rare migrant, usually seen latter part of May. FREEMAN, 1919, p. 16; a transient visitant.

I did not see this species in the field, but there was a mounted one in the Williams Collection taken at Grafton, May 21, 1921. Mr. Reid writes that three were seen on May 25, 1921, near Bismarck.

290. *Wilsonia canadensis* (Linnæus). Canada Warbler.

SCHMIDT, 1904; Red River Valley.

The species was not seen in the field, but I examined a mounted one in the Williams Collection taken at Grafton, May 23, 1921, by Henry Williams.

291. *Setophaga ruticilla* (Linnæus). Redstart.

ALLEN, 1875, p. 53; quite common along the Missouri at Fort Rice, Morton County, in June, 1873, where it was apparently breeding. COUES, 1878, p. 570; very abundant at Pembina, where it breeds. Specimens were taken there June 2 and 3, 1873. SCHMIDT, 1904; nesting throughout the state. JUDD, 1917, p. 27; common migrant of prairie and summer resident of the Turtle Mountains, Graham's Island, and other wooded tracts. FREEMAN, 1919, p. 16; common summer resident, May 14.

I did not see this species until May 21, 1921, at Devils Lake, where it was not common as a resident or even as a migrant.

All of the warblers are very beneficial in their food habits and destroy many injurious insects.

292. *Anthus rubescens* (Tunstall). Pipit.

ALLEN, 1875, p. 50; quite common about September near Heart River, Morton County. COUES, 1878, p. 557; a bird of passage in spring and autumn. In September they appeared in numbers along the Mouse River; one was taken there September 2, 1873. HOFFMAN, 1882, p. 398; only a few noticed after the 10th of September. SCHMIDT, 1904; rare migrant in central North Dakota. JUDD, 1917, p. 27; regular migrant in spring, more common in September.

I did not see this species in life, but Mr. Reid writes me that these birds were quite common on Horseshoe Lake, in northeast Burleigh County, on September 25, 1921.

293. *Anthus spraguei* (Audubon). Sprague's Pipit.

BAIRD, 1858, p. 234; records the type (No. 1854), a female taken, 1843, at Fort Union, North Dakota, by J. J. Audubon. ALLEN, 1875, p. 50; first observed along the Heart River fifty miles west of Fort Rice, Morton County, where it was more or less common. COUES, 1878, p. 558; breeding in great numbers in the prairie region twenty miles west of Pembina Mountains. The first one was collected on July 14, and it was seen daily to October 1, 1873, at Mouse River. HOFFMAN, 1882, p. 398; rather abundant the early part of September in grassy areas and stubble fields; less numerous after the 15th and 20th. COUES, 1807, p. 41; June 10, 1843. Audubon says, Harris and Bell have brought to my delight and utter astonishment a new bird, a lark, small and beautiful. In a foot-note Dr. Coues says, this is the first intimation we have of the discovery of the Missouri titlark which Audubon

dedicated to Mr. Sprague: p. 55; on June 24 Audubon records shooting four larks, and he describes at length their flight and beautiful song: p. 88; July 14, he shot seven more near Fort Union, Williams County. RIDGWAY, 1904, p. 21; breeding in the Red River Valley, North Dakota. JUDD, 1917, p. 27; fairly common summer resident.

The only ones noted by the writer were heard singing high in the air above low alkali flats or pastures near the edge of West Bay, Stump Lake, July 25, 1920. In July last, Mr. Elmer T. Judd, of Cando, Towner County, wrote me that the air was full of their beautiful song. Senator Crawford, of Sentinel Butte, has written me that Sprague's pipit is one of the rare prairie birds and that he has never been able to find a nest of this bird, although he has found the young.

294. *Oreoscoptes montanus* (J. K. Townsend). Sage Thrasher.

RIDGWAY, 1907, p. 260; from western North Dakota.

I find no other record.

295. *Mimus polyglottos polyglottos* (Linnæus). Mockingbird.

The only record known to me for the state is of a bird taken on the campus of the University of North Dakota, November 23, 1916, by Professor C. C. Schmidt. This bird was noted in the vicinity for several days after all other migrants had gone south. It was no doubt an accidental straggler.

296. *Dumetella carolinensis* (Linnæus). Catbird.

COUES, 1878, p. 551; one of the common breeding species of the Red River region and west to the Turtle Mountains. Specimens were taken at Pembina, June 13 to 30, and Turtle Mountains, July 23, 1873. JUDD, 1917, p. 27; tolerably common summer resident of this territory, seen third week in May.

I saw it at Devils Lake in May, 1921, and found it one of the most common land birds of that region as well as over the rest of the state in suitable habitats.

297. *Toxostoma rufum* (Linnæus). Brown Thrasher.

COUES, 1878, p. 551; observed at Pembina. One was taken at Pembina, June 21, 1873, and one at Fort Buford, Williams County, in July, 1874. SCHMIDT, 1904; all parts of the state. JUDD, 1917, p. 27; rather rare, probably nests in the Turtle Mountains. FREEMAN, 1919, p. 16; very common summer resident, May 10.

I saw this species at Devils Lake after May 10, 1921. At Medora I also found a few in June, and it was quite common at Bottineau in July. The food habits are mostly beneficial.

298. *Salpinctes obsoletus obsoletus* (Say). Rock Wren.

BAIRD, 1858, p. 358; a male taken at Fort Union, July 8, 1843, by J. J. Audubon. ALLEN, 1875, p. 50; first met with about some rocky buttes near the Big Muddy, Morton County; common in the Little Missouri Bad Lands in the summer of 1873. COUES, 1897, p. 97; July 18, Audubon shot five rock wrens near Fort Union: p. 122; July 29, Harris and Bell shot two rock wrens; August 8, saw a family of rock wrens and shot four near the same place. SCHMIDT, 1904; migrant, central North Dakota. JUDD, 1917, p. 27; but one known record; took a specimen in spring of 1896, in a woodpile at Cando, Towner County.

299. *Troglodytes aëdon parkmani* Audubon. Western House Wren.

COUES, 1878, p. 554; observed as far west as the confines of the Missouri Coteau. In June it was breeding very abundantly at Pembina, on the Red River, where specimens were taken June 2 to June 26. Others were taken at Mouse River, September 3, and Long Coteau River, September 11, 1873. THWAITES, 1906, p. 213; on November 3, 1833, Maximilian records seeing a wren in driftwood along the river below Fort Union. He says it was doubtless *Troglodytes hyemalis*, but at this late date it may have been the winter wren. JUDD, 1917, p. 27; very common summer resident of the Turtle Mountains; it arrives about May 15.

I first saw the species at Devils Lake, May 19, 1921, and later it was at all of the localities worked. Coues' notes are given under the eastern form and Schmidt also lists *aëdon aëdon*, but we refer all North Dakota specimens to the western house wren. A set of seven eggs in the collection of the Museum of Zoology was taken June 15, 1896, at Sweetwater Lake, Ramsey County, by E. S. Bryant. This is a very beneficial species generally distributed in North Dakota.

300. *Nannus hiemalis hiemalis* (Vieillot). Winter Wren.

JUDD, 1917, p. 27; rare, now and then one seen. SCHMIDT, 1904; eastern North Dakota.

I did not see this species in life, but there was a mounted one in the Williams Collection at Grafton, taken there April 15, 1921, by Henry Williams, who told me it was the only one seen there in his many years of collecting. It is no doubt a rare migrant in North Dakota.

301. *Cistothorus stellaris* (Naumann). Short-billed Marsh Wren.

COUES, 1878, p. 555; rather plentiful along the Red River; a male was taken at Pembina, June 4, and at Mouse River, August 9, 1873. COUES, 1897, p. 90; July 15, Audubon says he heard the notes of the short-billed marsh wren near Fort Union: p. 107; July 21, found the short-billed marsh wren very abundant. SCHMIDT, 1904; central and eastern North Dakota. BAILEY, 1916, p. 20; saw and heard many in the lake region of North Dakota. JUDD, 1917, p. 28; locally common; nests in high, thick grass near sloughs; arrives May 6 to 28. FREEMAN, 1919, p. 16; summer resident, not common.

This species was not seen at Devils Lake, but on July 29, a colony was found near Anselm, Ransom County, where they were nesting in the tall grass of a dry slough. Specimens were seen in the Agricultural College Museum from Hankinson, taken July 23, 1919, by W. B. Bell, and from Fargo, September 28, 1912, W. B. Bell. A nest in the Museum of Zoology was taken at Sweetwater Lake by Charles L. Cass.

302. *Telmatodytes palustris iliacus* Ridgway. Prairie Marsh Wren.

RIDGWAY, 1904, p. 494; from Chief Mountain Lake, North Dakota. SCHMIDT, 1904; central and eastern North Dakota. BAILEY, 1916, p. 20; common in the lake region. JUDD, 1917, p. 28; locally common; nests in high rushes.

They were found on July 29, near Anselm, Ransom County, nesting in tall rushes growing in the water of an extensive pond or slough. The wrens are all very beneficial in their food habits and destroy many injurious insects.

303. *Certhia familiaris americana* Bonaparte. Brown Creeper.

SCHMIDT, 1904; nesting in western North Dakota. JUDD, 1917, p. 28; rare, an irregular migrant, no known instance of its breeding. STEVENS, 1918, No. 1, p. 47; two seen on Christmas Day at Fargo, North Dakota.

I did not see this species in the field, but there was a mounted one in the Agricultural College Museum at Fargo, labelled November 16, 1912. It must be recorded as a rare migrant in North Dakota.

304. *Sitta carolinensis carolinensis* Latham. White-breasted Nuthatch.

SCHMIDT, 1904; eastern North Dakota. JUDD, 1917, p. 28; tolerably common migrant, probably breeding in the Turtle Mountains. STEVENS, 1918, p. 47; saw two on Christmas Day near Fargo, North Dakota. FREEMAN, 1919, p. 16; permanent resident.

Mr. Reid observed it in the Missouri River bottom on April 12-13, 1921, and on October 22, 1921.

This species was found at Devils Lake, May 7, 1921, but was not very common. On June 5 I saw one at Lake Upsilon, Turtle Mountains.

305. *Sitta canadensis* Linnæus. Red-breasted Nuthatch.

SCHMIDT, 1904; all over North Dakota as a migrant. JUDD, 1917, p. 28; not uncommon during September and October, but not noted in the spring. FREEMAN, 1919, p. 16; common in spring and fall, May 7. BAILEY, 1919, p. 227; September 2, near Sweetwater Lake.

I did not see this species in life, but saw a mounted bird in the Agricultural College at Fargo, taken at Grafton, September 21, 1913, by Henry Williams. The nuthatches are very beneficial, as they destroy both larvae and eggs of many injurious species of insects.

306. *Penthestes atricapillus septentrionalis* (Harris). Long-tailed Chickadee.

COUES, 1878, p. 554; an abundant resident of the region of the Upper Missouri in all suitable situations. SCHMIDT, 1904; breeding in central North Dakota. THWAITES, 1906, p. 208; October 30, 1833, near Fort Union, Maximilian records seeing the titmouse among the willow bushes. LARSON, 1913, p. 94; common on the river bottom, McKenzie County, in the timber. Not often found any other place. JUDD, 1917, p. 28; rather common resident in the Turtle Mountains, also has records from there. FREEMAN, 1919, p. 16; very common, permanent resident.

In 1920 the species was seen in the Turtle Mountains, August 2, and at Devils Lake, August 24. They were at the lake on May 9, 1921, and at Medora from July 14 to 21. On June 28, 1921, I saw a family of five in the thick woods along the Sheyenne River near Anselm, Ransom County.

The species is beneficial in its food habits, living almost entirely on the eggs and larvae of injurious insects.

307. *Penthestes hudsonicus hudsonicus* (J. R. Forster). Hudsonian Chickadee.

The only record known to me is of a bird taken November 20, 1919, at the State Fish Hatchery on Lake Upsilon, by Mr. Alfred Eastgate. It may occur as a winter resident or only as a straggler in the Turtle Mountains.

308. *Regulus satrapa satrapa* Lichtenstein. Golden-crowned Kinglet.

SCHMIDT, 1904; central North Dakota. JUDD, 1917, p. 28; only one record of this species near Cando. FREEMAN, 1919, p. 16; very common most years; March 27.

I did not see this species in life, but there was a mounted specimen in the Williams Collection at Grafton, taken there April 23, 1914, by Henry Williams. The scarcity of records proves its rarity in the state.

309. *Regulus calendula calendula* (Linnæus). Ruby-crowned Kinglet.

COUES, 1878, p. 553; observed in September on Mouse River in the dense undergrowth of the river bottom. SCHMIDT, 1904; central North Dakota. JUDD, 1917, p. 28; tolerably common spring migrant. FREEMAN, 1919, p. 16; very common transient visitant, April 11.

I did not see this species in July or August of 1920, but on May 7, 1921, I saw several at Devils Lake, where they were rather common until May 11. William Shunk, of Anselm, noted one at Grand Forks, April 12, 1916.

310. *Hylocichla mustelina* (Gmelin). Wood Thrush.

Mr. Russell Reid is authority for one seen May 1, 1917, near Bismarck, but it must be considered only as a rare straggler in the state.

311. *Hylocichla fuscescens salicicola* Ridgway. Willow Thrush.

COUES, 1878, p. 550; observed in the vicinity of Pembina, where it bred in June in abundance. HOFFMAN, 1882, p. 398; one shot by an Indian boy near Fort Berthold in early September. A few others were seen in thickets. SCHMIDT, 1904; central and eastern North Dakota. He also lists the Wilson thrush, which no doubt has been confused with the willow. RIDGWAY, 1907, p. 68; breeding at Pembina. JUDD, 1917, p. 28; abundant summer resident of the Turtle Mountains.

This species was quite common at Devils Lake after May 10, 1921, throughout the summer, and was seen in the Turtle Mountains near Bottineau, July 13, 1921.

312. *Hylocichla alicia alicia* (Baird). Gray-cheeked Thrush.

SCHMIDT, 1904; eastern North Dakota. JUDD, 1917, p. 28; common migrant, first seen the second week of May. FREEMAN, 1919, p. 16; common transient visitant, May 24.

It was common at Devils Lake for a few days after May 10, 1921.

313. *Hylocichla ustulata swainsoni* (Tschudi). Olive-backed Thrush.

COUES, 1878, p. 550; observed only in September along the Mouse River, where one was taken September 16, 1873. SCHMIDT, 1904; eastern and western North Dakota. JUDD, 1917, p. 28; a rare spring migrant, not noted in the fall. FREEMAN, 1919, p. 16; common transient visitant, April 16.

This species was found at Devils Lake, May 16, 1921, but by about May 20 all had gone north. A mounted male in the Williams Collection was taken at Grafton, June 30, 1910.

314. *Hylocichla guttata pallasii* (Cabanis). Hermit Thrush.

SCHMIDT, 1904; from central and eastern North Dakota. FREEMAN, 1919, p. 16; common transient visitant, April 8.

This species was not seen in the field, but the Williams Collection contains one taken at Grafton, April 24, 1919, and Mr. William Shunk noted one near Anselm in 1915.

315. *Hylocichla guttata sequoiensis* (Belding). Sierra Hermit Thrush.

Mr. Russell Reid sent a bird collected at Bismarck, April 26, 1921, to Mr. H. C. Oberholser, who identified it as this species.

316. *Planesticus migratorius migratorius* (Linnæus). Robin.

COUES, 1878, p. 549; found in abundance at Pembina, where it was breeding in the wooded river bottom. Specimens were collected there, June 12 to 24, and at Mouse River, September 16, 1873. SCHMIDT, 1904; all over the state. LARSON, 1913, p. 94; two seen January 26, 1913, McKenzie County. JUDD, 1917, p. 28; in 1910 one of the most common nesting birds about Cando. FREEMAN, 1919, p. 16; very common summer resident, March 18.

It is a common bird throughout the state.

317. *Sialia sialis sialis* (Linnæus). Bluebird.

COUES, 1878, p. 553; the eastern bluebird was not observed at Pembina. SCHMIDT, 1904; all over the state. JUDD, 1917, p. 28; rare summer visitor, but is becoming more common as the country is settled. FREEMAN, 1919, p. 16; fairly common summer resident, March 22.

This species was at Devils Lake May 2, 1921, and it was seen at Medora June 23, also at Williston, on the Missouri River, July 7, 1921. Mrs. Dana Wright, of Jamestown, writes that she saw a bluebird May 10, and that a pair usually nest in a neighbor's yard.

318. *Sialia currucoides* (Bechstein). Mountain Bluebird.

BAIRD, 1858, p. 225; a male was taken at Fort Union, July 1, 1843, by J. J. Audubon. COUES, 1897, p. 50; Audubon says, June 21 Sprague shot a superb specimen of the arctic bluebird: p. 79; on July 7; saw others at Fort Union. SCHMIDT, 1904; western North Dakota. JUDD, 1917, p. 28; rare early spring visitor. Irregular in its appearance here.

I saw three western bluebirds, June 17, in the petrified forest, twelve miles north of Medora, and there was also one at the Peaceful Valley Ranch, on the Little Missouri River, on June 17, 1921. There is a mounted bird in the Williams Collection taken at Grafton, April 10, 1921.

INTRODUCED SPECIES

319. *Passer domesticus* (Linnæus). English Sparrow.

This species has occupied nearly all of the state, and is all too common about dwellings and towns.

320. *Colinus virginianus virginianus* (Linnæus). Bob-white.

HOFFMAN, 1882, p. 403; two individuals were seen near Fort Berthold in September. These no doubt came from Fort Sully, where some were liberated about three or four years before. SCHMIDT, 1904; rare, introduced. JUDD, 1917, p. 15; admitted on hearsay; heard of a flock of a dozen near Grand Harbor, 1894-1895, presumably shipped in and turned loose there. FREEMAN, 1919, p. 12; rare, no data.

321. *Phasianus*. English Pheasant.

North Dakota has three state game farms where this species is raised, and from them it has been introduced into various localities throughout the state, and in some places seems to be increasing in numbers. It is a question, however, if the money and effort needed to successfully introduce this species could not be better employed to protect and propagate the many fine native game birds which are better adapted to the natural conditions of the state.

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PLATE I

Figure 1. Shore of Devils Lake.

Figure 2. Mauvaise Coulee.

Figure 3. Fish Hatchery and Lake Upsilon, Turtle Mountains.

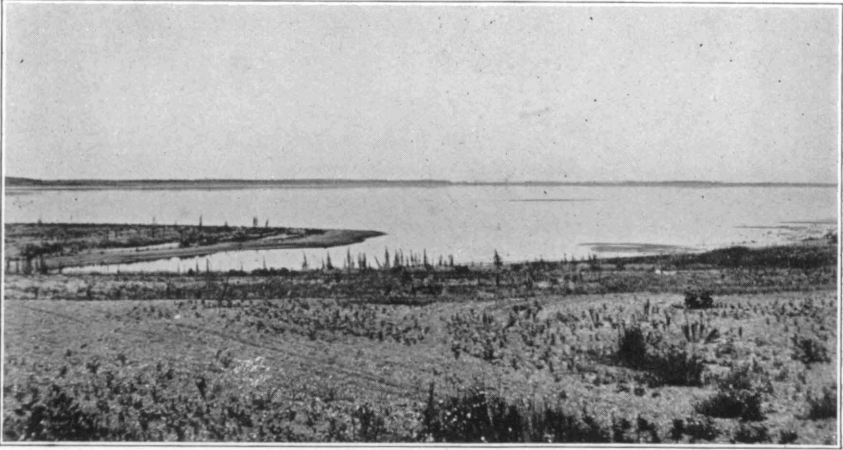


FIGURE 1



FIGURE 2



FIGURE 3

PLATE II

Figure 1. Swamy meadow and prairie near Devils Lake.

Figure 2. Missouri River near Williston.

Figure 3. Little Missouri River and grove of cottonwood near Medora.



FIGURE 1



FIGURE 2

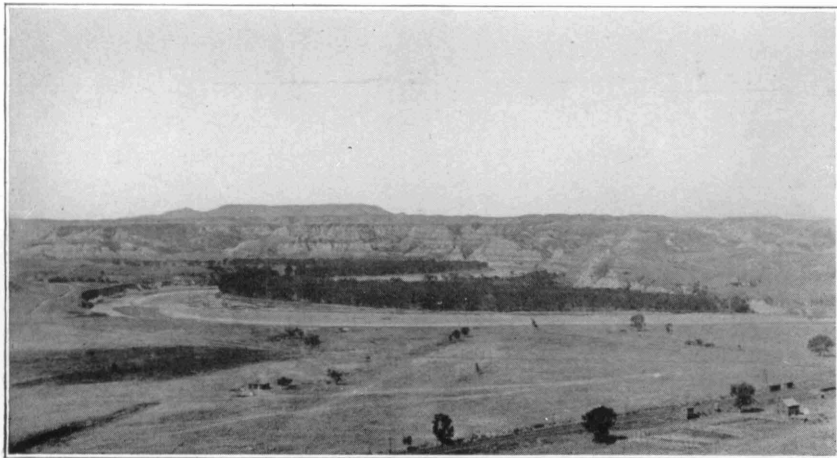


FIGURE 3

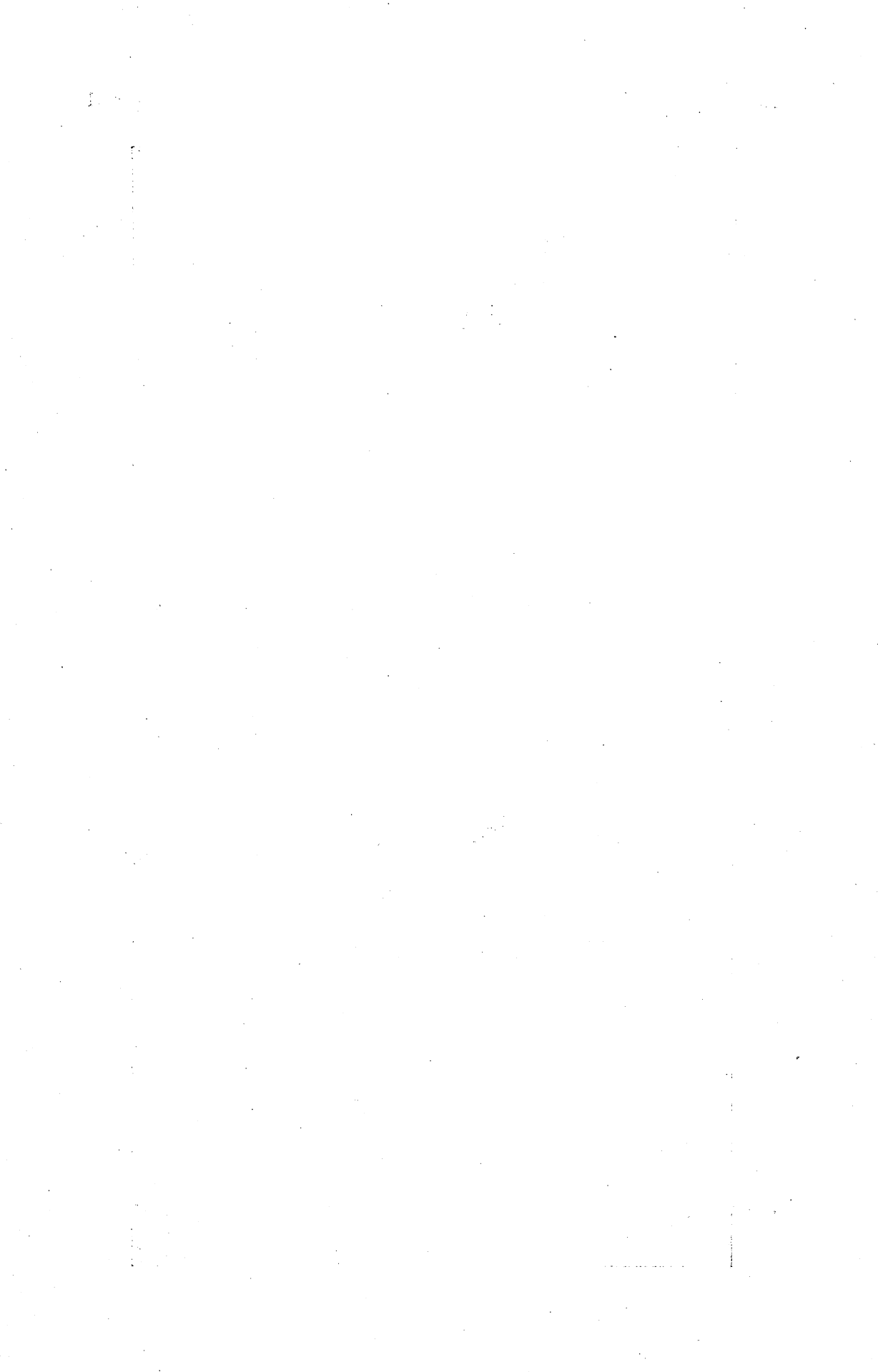




PLATE III

Figure 1. Nest of ferrugineous roughleg hawk, near top of butte, north of Esmond. Photograph by P. B. Peabody.

Figure 2. Saskatchewan horned lark on nest, Bismarck, June 6, 1921.
Photograph by Russell Reid.



FIGURE 1



FIGURE 2

PLATE IV

- Figure 1. Long eared owl on nest. Hay Creek near Bismarck, May 22, 1921.
Photograph by Russell Reid.
- Figure 2. Nest of chestnut-collared longspur near Esmond. Photograph by
P. B. Peabody.
- Figure 3. Nest of yellow rail near Esmond, June 7, 1912. Photograph by
P. B. Peabody.



FIGURE 1



FIGURE 2



FIGURE 3



PLATE V

- Figure 1. Nests of double crested cormorants. Bird Island, Devils Lake, 1920. Photograph by Crystal Thompson.
- Figure 2. Lark bunting on nest. Bismarck, July 6, 1921. Photograph by Russell Reid.



FIGURE 1



FIGURE 2



PLATE VI

- Figure 1. Nest and eggs of LeConte's sparrow. North Dakota. Photograph by P. B. Peabody.
- Figure 2. Western grasshopper sparrow. Photograph by P. B. Peabody.
- Figure 3. Nest of Baird's sparrow near Esmond, June 5, 1919. Photograph by P. B. Peabody.
- Figure 4. Nest of ring-neck duck. Devils Lake Region, July 20, 1919. Photograph by P. B. Peabody.



FIGURE 1



FIGURE 2



FIGURE 3



FIGURE 4

