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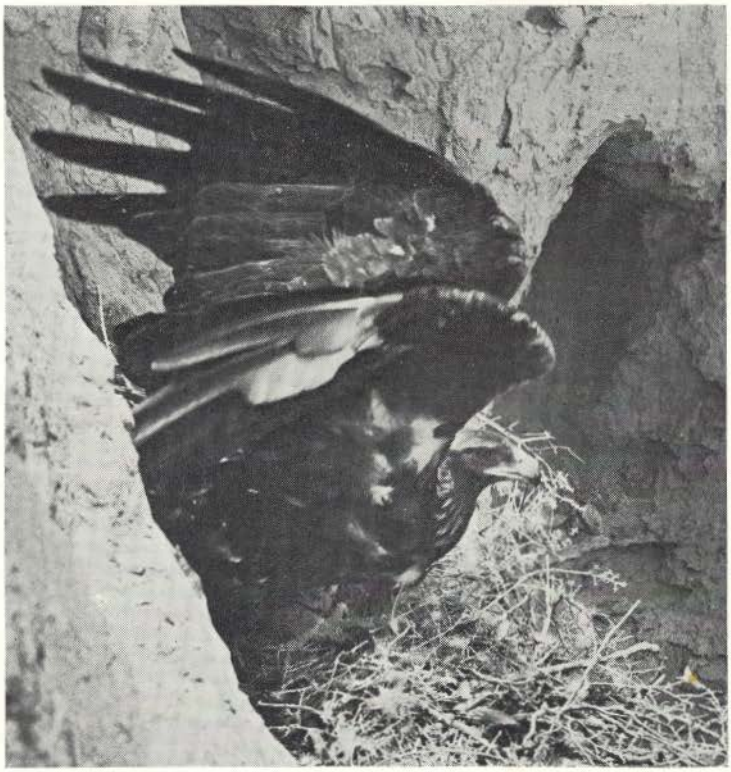

Golden Eagle at Nest

—Ed Bry, North Dakota Game and Fish Department

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Vol. XX, No. 2 **June, 1968** **Whole No. 77**

In This Number . . .

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President's Page

OUR spring meeting at Highmore was exceptional. The meeting facilities were excellant, and many gracious people willingly assisted Mrs. Harter in planning and doing the local work for this meeting. We are indeed grateful to all of them. Similarly, we are indebted to Mr. Bob Whyte for sharing his attractive slides of South Dakota birds and to Dr. L. J. Moriarty for the fascinating account of his birding experiences in remote southern Chile.

The weather for our field trips was remarkable. While other spring meetings may remain for us as vaguely pleasant recollections, we will vividly remember and talk about the Highmore field trips. The snow, rain, and wind made our efforts acutely challenging and made our bird-finding success all the more rewarding. Mrs. Harter's promise of good birding in Hyde County is verified by the species list published elsewhere in this issue.

Some items from the business meeting at Highmore should be of interest to all SDOU members. The number of paid members has increased slightly since Mrs. Holden's "Plea for SDOU Members" in the March, 1968, issue of BIRD NOTES. Nevertheless, our membership situation is a matter of concern. An additional 40 or 50 new or renewed memberships would put the organization in a more comfortable financial position to fulfill its services to South Dakota ornithology. We urge each interested member to promote SDOU membership at every opportunity. In addition, Don Adolphson, our membership chairman, is anxious to work with you in communicating with prospective members. You may send your membership suggestions to him, 2611 Lawndale Drive, Rapid City, South Dakota 57701.

About a year ago, as a service to members and friends, SDOU financed the printing of stationery, note paper, and bookplates—all attractively displaying Mr. Trimm's excellent rendition of a lark bunting. This non-profit, self-supporting venture has not been as widely and actively received as was expected. Since these stationery items and bookplates can be satisfying for personal use and for gifts, we urge your greater interest in this service. Please send your orders and inquiries to Mrs. David Holden, Route 1, Box 80, Brookings, South Dakota 57006.

Somewhat surprisingly, there has been no formal invitation for the 1968 fall meeting of SDOU. But there will be a fall meeting. Efforts in the next few weeks should enable announcement of the time and place in the September issue of BIRD NOTES. In the meantime, we hope many of you will plan to attend this meeting, and individuals interested in presenting a paper or report at the fall meeting may inform me or the editor. We will be pleased to reserve a place for you in the program.

—**L. M. Baylor**

Breeding Birds in the Roscoe, South Dakota Area in 1967

Harold F. Duebbert

A STUDY of waterfowl-predator relationships was conducted in 1967 near Roscoe, Edmunds County, South Dakota by the Northern Prairie Wildlife Research Center of the U.S. Bureau of Sport Fisheries and Wildlife, Jamestown, North Dakota. In addition to routine field work oriented toward duck production, notes were recorded on other birds breeding in the area. For the historic record, and to add to the knowledge of bird distribution in South Dakota, the following brief report is presented.

Most of the observations were made within two six-square-mile blocks of land in townships 122 and 123 N., R. 71 W., about eight miles west of Roscoe. This area has gently rolling topography and is part of a glacial drift plain. It lies within the Missouri Coteau physiographic region. Soils are deep, friable, well-drained loams with associated areas of poor drainage and claypan. Average annual precipitation is about 18 inches. The 1967 season would be classified as "very wet" as a result of heavy precipitation in April (+5.21 inches above normal of 1.46 inches) and June (+2.32 inches above normal of 3.62 inches). During May and July, slightly less than normal precipitation was received. Temperatures averaged a few degrees below normal during the May-July period.

The area consists of approximately 45 per cent cropland (small grains, flax and corn), five per cent alfalfa, 35 per cent native grassland, 12 per cent wetlands and three per cent "other" (farmsteads, shelterbelts, roads and roadsides). Seventy per cent of the native grassland is heavily pastured, 20 per cent hayed, and 10 per cent left idle. The shallow, densely vegetated wetlands average about 15 or 20 per square mile and range from one-tenth acre to 200 acres in size. They are characterized by a fresh water ecology. Various species of sedge (**Carex** spp.), especially slough sedge (**C. atherodes**), graceful sedge (**C. praegracilis**), and wooly sedge (**C. lanuginosa**) and white top (**Scolochloa festucacea**) comprised most of the acreage of wetland vegetation. Marsh smartweed (**Polygonum coccineum**) is common. Some of the deeper, more permanent wetlands contained relatively small amounts of hardstem bulrush (**Scirpus acutus**), river bulrush (**Scirpus fluviatalis**), common cattail (**Typha latifolia**) and broadfruit burreed (**Sparganium eurycarpum**). Many other shallow water and moist soil forbs, grasses and sedges were also present. Submerged aquatic vegetation was not abundant, but was represented by the following species: variableleaf pondweed (**Potamogeton gramineus**), common bladderwort (**Utricularia vulgaris**), grassleaf poundweed (**Potamogeton pusillus**), snailseed pondweed (**Potamogeton spirillus**), sago pondweed (**Potamogeton pectinatus**), variableleaf watermilfoil (**Myriophyllum heterophyllum**), and white watercrowfoot (**Ranunculus trichophyllus**). The first two submerged plant species were of common occurrence, but the others were rare. Water depths in various basins varied from a few inches to about four feet during the growing season, with 10-15 inches being about average during June. The most common upland

prairie grasses were: green needlegrass (**Stipa viridula**), little bluestem (**Andropogon scoparius**), blue grama (**Bouteloua gracilis**), needle-and-thread (**Stipa comata**) and prairie junegrass (**Koeleria cristata**).

For the purpose of this report, evidence of bird reproduction was limited to the existence of a nest with eggs or observation of dependent young. Findings are shown in Table One. This list includes only those birds associated with natural habitats and agricultural fields. Farmsteads and shelterbelts are two important bird habitats which were not investigated. In addition, the following 10 species were observed at least once during June and July but definite evidence of reproduction was not established: least bittern, cinnamon teal, American widgeon, red-tailed hawk, marsh hawk, gray partridge, American avocet, great-horned owl, western kingbird and bobolink.

J. Scott Findley died Saturday afternoon, June 15, 1968, the word came as the makeup of this issue was being completed.

Scott was a moving spirit in SDOU from its beginning, served as Editor of Bird Notes for five years, and was SDOU's third president. A brief biography by Carl M. Johnson and H. F. Chapman appeared in Bird Notes, Vol. XIV:4-7.

TABLE ONE—BREEDING BIRDS NEAR ROSCOE, SOUTH DAKOTA, 1967

Species	No. nests or broods
Eared Grebe	Two nests
Pied-billed Grebe	One brood
American Bittern	Two nests
Mallard	15 nests
Gadwall	14 nests
Pintail	14 nests
Green-winged Teal	Two nests
Blue-winged Teal	26 nests
Shoveler	Four nests
Redhead	One nest
Canvasback	One nest
Ruddy Duck	One nest
Ring-necked Pheasant	Two nests
Virginia Rail	One nest
Sora	11 nests
American Coot	11 nests
Killdeer	One brood
Upland Plover	Two nests, four broods
Willet	One brood
Marbled Godwit	Two nests
Wilson's Phalarope	Two nests
Black Tern	Three nests
Mourning Dove	Two nests
Eastern Kingbird	One nest
Common Crow	One brood
Western Meadowlark	Seven nests
Yellow-headed Blackbird	Five nests
Red-winged Blackbird	19 nests
Brown-headed Cowbird, Eggs in meadowlark and lark bunting nests	
Lark Bunting	Three nests
Savannah Sparrow	One brood
Baird's Sparrow	One brood
Chestnut-collared Longspur	One nest
33 species	

—Northern Prairie Wildlife Research Center, Jamestown, N. Dak.

Birds of the Highmore Area

Combined List of the 1968 Meeting May 17-19

Horned Grebe
Eared Grebe
Western Grebe
Pied-Billed Grebe
White Pelican
Double-crested Cormorant
Great Blue Heron
Black-crowned Night Heron
American Bittern
Mallard
Black Duck
Gadwall
Pintail
Blue-winged Teal
American Widgeon
Shoveller
Redhead
Canvasback
Lesser Scaup
Ruddy Duck
Turkey Vulture
Red-tailed Hawk
Swainson's Hawk
Feruginour Hawk
Marsh Hawk
Peregrine Falcon
Prairie Chicken
Hungarian Partridge
Ring-necked Pheasant
American Coot
Semipalmated Plover
Killdeer
Golden Plover
Black-bellied Plover
Common Snipe
Long-billed Curlew
Upland Plover
Spotted Sandpiper
Willet
Greater Yellowlegs
Lesser Yellowlegs
White-rumped Sandpiper
Pectorial Sandpiper
Baird's Sandpiper
Least Sandpiper
Dowitcher, L-b.
Stilt Sandpiper
Semipalated Sandpiper
Western Sandpiper
Marbled Godwit
Wilson's Phalarope
Northern Phalarope
Ring-billed Gull
Franklin's Gull
Forster's Tern
Black Tern
Mourning Dove
Great Horned Owl
Burrowing Owl
Short-eared Owl
Yellow-shafted Flicker
Red-headed Woodpecker
Eastern Kingbird
Western Kingbird
Traill's Flycatcher
Least Flycatcher
Western Wood Pewee
Horned Lark
Tree Swallow
Bank Swallow
Cliff Swallow
Blue Jay
Rough-winged Swallow
Barn Swallow
Black-billed Magpie
Common Crow
Black-capped Chickadee
House Wren
Rock Wren
Catbird
Brown Thrasher
Robin
Swainson's Thrush
Gray-checked Thrush
Eastern Bluebird
Golden-crowned Kinglet
Ruby-crowned Kinglet
Loggerhead Shrike
Starling
Warbling Vireo
Black and White Warbler
Tennessee Warbler
Orange-crowned Warbler
Yellow Warbler
Myrtle Warbler
Blackpoll Warbler
Yellow-throat
American Redstart
House Sparrow
Bobolink
Eastern Meadowlark
Western Meadowlark
Yellow-headed Blackbird
Red-wing
Orchard Oriole
Baltimore Oriole
Brewer's Blackbird
Common Grackle
Brown-headed Cowbird
Rose-breasted Grosbeak
Black-headed Grosbeak
Lazuli Bunting
American Goldfinch
Rufous-sided Towhee
Lark Bunting
Savannah Sparrow
Vesper Sparrow
Lark Sparrow
Chipping Sparrow
Clay-colored Sparrow
Field Sparrow
Harris' Sparrow
White-crowned Sparrow
White-throated Sparrow
Song Sparrow
Chestnut-collared Sparrow

Book Review

J. W. Johnson

THE Life of the Mountains, by Maurice Brooks. McGraw-Hill, 1968, produced jointly with the World Book Encyclopedia. $4.95. The tenth and final volume of the series, **Our Living World of Nature**, and uniform with the earlier volumes. 232 pages, including 32 page Appendix: Mountains in the National Park System, Vanishing Wildlife of the Mountains, Basics of Backpacking, Guide to Common Fossils, Glossary and Index.

In makeup this final number of the series is equal in all respects to the others. But the grand scale of the backgrounds gives one the feeling of remoteness that detailed treatment of life zones and ecological relation of varied flora and fauna only briefly dispells.

The author, a leading botanist and ornithologist, is Professor of Wildlife Management at Virginia University, and has been President of the Wilson Ornithological Society. He describes flowers, trees, birds, insects, and mammals of the different levels of the slopes, explaining why they are confined to narrow vertical zones. Geological history, the basis of it all, is not left out and brief but adequate treatment for the purpose makes clear the difference in age as well of the eastern and western mountains. Isolated southern peaks hold life forms otherwise found only far to the north. His enthusiasm for the mountains comes through to the reader, who finds himself caught up in it.

The lavish illustrations we have come to expect are here, from the air photo of snow dappled mountain peaks of the endpapers to a shudder evoking view of climbers above a glacial crevasse. In between are: a bighorn sheep, eye to eye, a pinon pine overhanging a canyon wall, a pair of Red-faced warblers, a Dipper before its nest, a scene of snow-capped peaks through the pines, Alpine forget-me-nots, a lynx with its kill, a pair of Copper-tailed Trogans, mountain goats, and many more hardly less spectacular.

Golden Eagle Soaring

—Ed Bry, North Dakota Game and Fish Department

Fort Wadsworth (Now Fort Sisseton)
as it appears today

Knickerbocker's 1869 List of the Birds of Fort Wadsworth, Dakota Territory

Herman P. Chilson

THE most striking topographic feature of eastern South Dakota is the Coteau des Prairie, so named by early French fur traders and explorers. This plateau rises from 400 to 800 feet above the surrounding terrain, and is adorned with terminal moraines deposited by the Wisconsin Ice Sheet. The topography of the Coteau varies from nearly level to rolling and its surface is pitted with thousands of glacially formed depressions which are occupied by lakes and potholes. George Catlin, the Indian painter, who first saw the Coteau in 1835 remarked, "This wonderful anomaly in nature, which is several hundred miles in length, and varying from 50 to a 100 in width, is undoubtedly the noblest mound of its kind in the world: it gradually and gracefully rises on each side by swell after swell . . . "

Fort Wadsworth 1864-1876, later called Fort Sisseton 1876-1889, is located in the northeast corner of South Dakota, on the Webster moraine of the Coteau des Prairie, about 24 miles north of Webster. The military reser-

vation, during its 25 year life span, was located in the area which is known today as Marshall and Day counties. From 1881-1885 it was located exclusively in Day County. Marshall County was then created from the northern half of Day County which placed the buildings proper in Marshall County.

I have lived in Webster for 62 years. Fort Wadsworth with its rich lore of natural and military history has fascinated me since childhood. I served on the Fort Sisseton Centennial Committee, and am presently active in the Northeastern Lake Region Association which is promoting a new Visitor's Center, and restoration of the entire fort.

I spent part of two winters in Washington, D. C., in the National Archives and the Congressional Library, doing research on the early military history of our area. While there in 1965 I uncovered accounts of the earliest ornithological observations at Fort Wadsworth, heretofore unpublished.

On May 14, 1868, the Surgeon General's Office in Washington, D. C., adopted a new hospital record book which included a special section for ornithology. The post surgeon at every fort was required, as part of his duties, to gather this information. Assistant Surgeon General Dr. B. Knickerbocker arrived at Fort Wadsworth on November 6, 1868. His observations, made in the gently rolling hills of the military reservation which was dotted with creeks, lakes, and potholes, were recorded sporadically throughout late 1868 and all of 1869. On foot and by horseback he roamed over the entire reservation which was originally nine miles by 15 miles, covering 135 square miles. When the Sisseton-Wahpeton Indian Reservation line was run by surveyors it sliced off a portion of the military reservation reducing it to approximately 128 square miles. Knickerbocker, like his successor McChesney (1879), undoubtedly travelled 20 to 30 miles from the fort on his birding trips.

Knickerbocker's (1869) entries, significant in themselves, are the first written ornithological observations made at Fort Wadsworth. Knickerbocker worked under a much greater handicap than his successor, McChesney (1879), who had the singularly good luck to be the protege of Dr. Elliott Coues. The British and American bird books used by Knickerbocker in 1869 were inadequate when compared with the Birds of the Northwest published by Coues in 1874.

Knickerbocker (1870) wrote that there was an abundant supply of water. The early fort was built entirely of logs, cut on the premises. Wood, cut from the trees on the reservation, was the only fuel at the fort. Contrast this statement with Bennett's (1878) observations. He noted that the lakes had been steadily drying up since the establishment of the fort, that many had gone entirely dry, and that the lakes had fallen perpendicularly 12 feet or more in the past 12 years. He reasoned that the trees and tall grass caught much snow in the winter time, and that the cutting of timber and burning of matted grass and brush, permitted the snow to be swept out of the area by the strong winds. Bennett (1878) ordered another ice house built and recommended digging additional cisterns. By the time McChesney (1879) submitted his monograph practically all of the trees on the military reservation had been cut.

The soldiers stationed at this isolated post hunted game for recreation and forage. It was a common practice for

White Pelicans at Bitter Lake

—From Color Slide by E. J. Rose

soldiers to supplement the post larder with wild fowl and fresh fish. The commander of the fort (1876) issued an order, which was posted on December 2, 1876, prohibiting the killing of Prairie Chickens or grouse on the military reservation, indicating that the personnel on the post had seriously reduced the game bird population. This order constitutes the first known conservation proclamation for the area now known as northeastern South Dakota. The conservation order did not apply to the game which Knickerbocker observed. Among the many mammals which today are extinct in this region, and whose habitat was the fort, Knickerbocker (1869) listed: elk, buffalo, antelope, large grey wolf, black bear, otter, marten. The coyote, once plentiful, is uncommon today. The following, also on his list, are common in the fort area today: deer, red fox, badger, skunk, weasel, beaver, rabbit, Richardson Ground Squirrel, Franklin Ground Squirrel, and muskrat.

By the year 1880 other conservation measures were tried. The commandant (1881) complained that the wild rice seed sent by the Commissioner of Agriculture at Washington, D. C., to be planted in Wahbay (sic) Lake and Big Stone Lake was too old. Apparently he became impatient to get a crop started, for he wrote again two years later (1883) and requested six bushels from last year's growth to plant in the vicinity of the fort. The officers knew that wild rice was a favorite food of all ducks, particularly the mallard. Wild rice was indigenous to our area and I know of one clump of wild rice which has been growing in Owen's Creek for 40 years. Wild rice thrives

in soft, deep mud, and shallow, slow moving water. Owen's Creek met all of these qualifications. Rod Drewien (Pers. Inter. 1967) says that water chemistry is one of the factors which limits its growth in many areas of northeastern South Dakota.

The following, which is not a complete list of the area, was compiled by Knickerbocker (1869) during 1868-1869. Knickerbocker's list (1869) is smaller than his successor McChesney (1879) but it does include 14 species not recorded by McChesney. An asterisk (*) is used to designate the species not seen by McChesney.

COMMON LOON (Gavia immer). In the early days of the fort the loon was seen in large numbers as a migrant, but by 1935 Youngworth (1935) listed it as an uncommon migrant. Today it should be classed as rare.

***RED-NECKED GREBE (Podiceps grisgena).** This bird was rare in the 1860's and 1870's. Knickerbocker reports having seen it but McChesney does not. Over (1921) records it as a rare migrant in South Dakota. Evidently it had become well established by the 1950's as Lundquist (1952) reported it as noisy during the mating season. For the past 30 years, the Red-necked Grebe has been evident in fairly constant numbers, and can be classified today as common in the spring, summer, and fall. This is a breeding species.

WHITE PELICAN (Pelecanus erthrorhynchos). A frequent sight in our lake area is the clumsy looking pelican. When airborne it is one of our most beautiful birds. It is a common summer resident occasionally nesting here. McChesney (1877: 261) and Youngworth (1935: 212) recorded the pelican as not nesting here. Moriarity (1963: 27, 61) observed 200 pelican nests on Cormorant Island and an additional 200 nests on the west island. Both of these islands are in South Waubay Lake.

TRUMPETER SWAN (Olor buccinator). Knickerbocker observed this bird in 1869 and McChesney (1877: 241) reported seeing them as fall and spring migrants. There is good reason to believe it might have nested on the military reservation as Over (1921) said this beautiful bird nested in South Dakota in the 1880's. Cooke (1906) reported it nesting in Minnesota in 1886, and in North Dakota for a few years later.

***BRANT (Branta bernicla).** This rare bird reported by Knickerbocker was not observed by McChesney. Neither was it listed by Youngworth (1935). Over (1921) called it a rare straggler. This is possibly a good description today.

***WHITE-FRONTED GOOSE (Anser albifrons).** This goose is not seen as regularly as it was in the early 1930's. It is not rare but should be classed as an uncommon or casual visitor in spring and fall.

GADWALL (Anas strepera). This duck is common from spring to fall in the region. Next to the Blue-winged Teal, this is the second most common breeding duck. Evans and Black (1956) reported an average of 10.0 breeding pairs per square mile on the Waubay Study Area for 1950-1953, whereas in 1965 there were 14.5 breeding pairs per square mile. (Harvey K. Nelson Pers. Comm.)
(Harvey K. Nelson Pers. Comm.) per square mile.

PINTAIL (Anas acuta). The pintail is a summer resident and quite common, although they have never been as abundant as the gadwall. Evans and Black (1956) recorded an average of 6.3 pairs per square mile in 1950-1953, while only 5.0 pairs per square mile

were seen in 1965 (Harvey K. Nelson Pers. Comm.). This is the fourth most common breeding duck.

GREEN-WINGED TEAL (Anas carolinensis). Both McChesney and Knickerbocker observed this beautiful bird which today is a summer resident. It is more plentiful during the spring and fall migration periods but at no time is it abundant. In four years of study 1950-1953, broods were reported two years, but breeding pairs were reported each year (Evans and Black 1956). This bird has possibly increased, since McChesney (1877) did not report it during the summer months.

BLUE-WINGED TEAL (Anas discors). This is the most abundant breeding duck in the fort area. It was also the most abundant duck in the late 1920's and 1930's when I was an avid hunter. Evans and Black (1956) report an average of over 30 pairs per square mile from 1950-1953. Harvey K. Nelson (Pers. Comm. 1967) reported 45.1 pairs per square mile in 1965 which is an increase of 50 per cent.

WOOD DUCK (Aix sponsa). This beautiful duck was not plentiful in the days of Knickerbocker or McChesney as McChesney (1877) reported only one sight record. Youngworth (1935) reported them as occasional fall migrants. Rod Drewien (Pers. Comm. 1967) has observed Wood Ducks each spring during the three year period 1965-1967. He also reports sighting from 30 to 40 males in their post molt in August during some years. This may indicate an increase for the past 30 years.

BUFFLEHEAD (Bucephala albeola). Knickerbocker called it "Spirit Duck" in 1869. This duck was quite common during migration in the early days of the fort according to McChesney (1877). Youngworth (1935) expressed concern for the Bufflehead, and urged protection to restore it to some extent and maybe preserve the species for a few years more. Buffleheads are locally abundant on a few of the larger water areas such as Waubay Lake. Richmond Fiksdal (Pers. Inter. 1967) observes quite a few of them each fall while Robert R. Johnson (Pers. Inter. 1967) says they are uncommon in the spring and fall, and occasional in the summer on the Waubay National Wildlife Refuge which he manages. W. L. Sewell (Pers. Inter. 1967) sees them every fall, and sighted a group of seven on August 15, 1966, near Grenville, South Dakota. Jerome H. Stoudt (Pers. Comm. 1967) made a positive identification of a brood of Buffleheads in mid-July west of Lake City. Unfortunately he cannot locate his old sight records but it was during 1949-1951 when he was running the brood and water surveys in that area for the Bureau of Sport Fisheries and Wildlife. This duck has increased considerably since 1935 and is a rare breeder today. As a migrant it can be classed as uncommon.

COMMON MERGANSER (Mergus merganser). Knickerbocker saw this duck in 1868-1869, and called it a Goosander." This bird is observed during migration only.

TURKEY VULTURE (Cathartes aura). This bird was quite common and nested in the fort area in the days of Knickerbocker and McChesney. By 1931 the status had changed and Youngworth (1935: 214) reported only one bird. Rod Drewien (Per. Inter. 1967) saw one in April 1965 just south of Piyas Lake. Today it is rare.

***MISSISSIPPI KITE (Ictinia misisippiensis).** Knickerbocker observed this rare bird in 1869 and it was not seen by his successor. Over (1921) does not record the Mississippi Kite. W. J. Breckenridge (Pers. Comm. 1966) says there are no records for Minnesota.

***GOSHAWK (Accipiter gentilis).** This bird observed by Knickerbocker in 1868-1869, was not seen by his successor some 10 years later. Young-

worth (1935: 216) reports this hawk as common during some fall seasons in the 1930's. Today it is seen only occasionally in the fall and winter.

***ROUGH-LEGGED HAWK (Buteo lagopus).** Knickerbocker's successor did not record this hawk although today it is a common migrant in our area.

BALD EAGLE (Haliaeetus leucocephalus). This large bird is now seen occasionally in the fall and winter.

SPARROW HAWK (Falco sparverius). This small falcon is presently a summer resident and fairly common from spring to winter.

GREATER PRAIRIE CHICKEN (Tympanuchus cupido). The Prairie Chicken, which was so numerous in the early days of the fort, has diminished to the status of a rare bird. A few still nest in this area.

SANDHILL CRANE (Grus canadensis). This crane was observed by Knickerbocker in 1868-1869. McChesney (1877: 241) said they were rarely observed on the Coteau but a year or so later McChesney (1879: 94) remarked that a few remained to breed on the Coteau. Youngworth (1935: 217) called it an uncommon migrant while Rod Drewien (Pers. Comm. 1967) has seen small flocks in mid-April each year for the past three years 1965-1967. W. J. Breckenridge (Pers. Comm. 1967) says the Lesser Sandhill is an Arctic nester and migrant in South Dakota while the Greater Sandhill nested in South Dakota.

***COMMON GALLINULE (Gallinula chloropus).** This elusive bird was spotted by Knickerbocker but missed by McChesney (1879). Youngworth (1935) listed it as a summer resident in 1935. Herbert Krause, veteran ornithologist, and I, have searched for this bird for the past 15 years, but have failed to see one. Robert R. Johnson (Pers Inter. 1966) said he had no records for many

White Pelican Nesting Colony
at Bitter Lake

—From Color Slide by B. J. Rose

years. The Common Gallinule should be classified as a rare bird.

COOT (Fulica americana). This bird is now abundant and populates practically every pothole, slough, and lake. Its very numbers work against publication of observations.

KILLDEER (Charadrius vociferus). The Killdeer is one of our more common summer residents. Evidently the population has remained fairly stable since the early days of the fort.

WOODCOCK (Philohela minor). In 1869 Knickerbocker first reported the Woodcock at the fort. His successor also listed it in his 1879 report (McChesney 1879). Earl Potter, local taxidermist, shot one in the early 1920's and mounted it. By 1935 this bird had disappeared and none has been reported since that time.

COMMON SNIPE (Capella gallinago). We see this bird in the spring and fall as a migrant. Youngworth (1935) reported a possibility of a few breeding pairs in the 1930's, but we have no records of its nesting in the past two decades.

LONG-BILLED CURLEW (Numenius americanus). As this bird was also listed by McChesney (1879), it must have been quite common in the early years. It was not recorded in 1935, and has not been observed in recent years.

AMERICAN AVOCET (Recurvirostra americana). This bird reported by both Knickerbocker and McChesney (1879) bred rather sparingly at the fort. Youngworth (1935) rated this bird as exceedingly rare in migration. The Avocets have increased in numbers since 1935; today we would class it as an uncommon summer resident with nests being found on both Rush and Bitter Lakes.

***RING-BILLED GULL (Larus delawarensis).** This is another bird that McChesney (1879) did not record. It is common during the spring, summer, and fall, and large groups may be seen at Blue Dog Lake and Waubay Lake. Large numbers nest on Bitter Lake and Cormorant Island in Waubay Lake.

***ROCK DOVE (Columbia livia).** This dove recorded by Knickerbocker was not seen by his successor McChesney (1879).

***SCREECH OWL (Otus asio).** Knickerbocker saw this owl in 1868-1869. Today it is found as a fairly common resident throughout the year.

SNOWY OWL (Nyctea scandiaca). This large, white Arctic owl which comes to visit us from the north in numbers rising to a peak every few years is probably as common today as it was in the days of Knickerbocker and McChesney. It is an occasional winter visitor. See BN XVII: 63, XIX: 4 and various Christmas counts.

***CHIMNEY SWIFT (Chaetura pelagica).** Knickerbocker observed this bird in 1869 but McChesney (1879) did not list it. It is a regular summer resident in the northeast corner of the state.

DOWNY WOODPECKER (Dendrocopos pubescens). This friendly little bird is still a desirable and common permanent resident of the area.

BARN SWALLOW (Hirundo rustica). This swallow is abundant today. After reading the early military history of the post it is easy to understand why McChesney (1879) reported such small numbers. Bennett (G. O. 1879) ordered all swallows driven away and nests on public buildings torn down. Bennett (L. S. 1879) wrote a draft to get rid of the swallows as soon as possible. He stated that one side of his house was covered with bedbugs in "such numbers as I have ever saw (sic) in officer's quarters before," and that the swallow nests were all covered with bedbugs.

BLUE JAY (Cyanocitta cristata). This bird, first reported by Knickerbocker in 1869, is now a permanent

resident of the area, although some apparently migrate south for the winter during some years.

COMMON CROW (Corvus brachyrhnchos). Knickerbocker did not observe any crows in his list of 1868-1869, but he did see some on April 3, 1870. This could add strength to McChesney's (1879) statement, "The Crow was considered a rare bird at the post." This is not the case today.

ROBIN (Turdus migratorius). The robin may have been common during the early years of the fort, but probably decreased in numbers through the years as the trees were cut down.

***WOOD THRUSH (Hylocichla mustelina).** The Wood Thrush is an extremely rare visitor and is not included in the South Dakota Ornithological Union Check List. I have a sight record of one bird at Pickerel Lake on May 20, 1954. Dahling (1958) reported several in Watertown in 1932, and one in Webster on May 18, 1957.

***NORTHERN SHRIKE (Lanius excubitor).** Though Knickerbocker noted the Northern Shrike in 1869 McChesney (1879) did not. Today it is an occasional winter visitor.

***WESTERN MEADOWLARK (Sturnella neglecta (or magna).** Knickerbocker listed this bird as, American Lark (**Alauda magna**). Over (1921) did not think that a true type of the eastern had been taken in South Dakota. W. J. Breckenridge (Pers. Comm. 1967) thought it was most likely a western. J. W. Johnson (Pers. Inter. 1966) felt that the true situation over a century ago was lost beyond recovery.

RED-WINGED BLACKBIRD (Agelaius phoeniceus). This bird was observed at the fort in 1869 and also in 1878. Today it is one of our most common breeders.

COMMON GRACKLE (Quiscalus quiscula). It was called a blackbird, (**Quiscalus versicolor**) in 1869. Today it is a summer resident and abundant.

***SNOW BUNTING (Plectrophenax nivalis).** This bird listed by Knickerbocker was missed by McChesney (1879) and Youngworth (1935). Today it is a common winter visitor.

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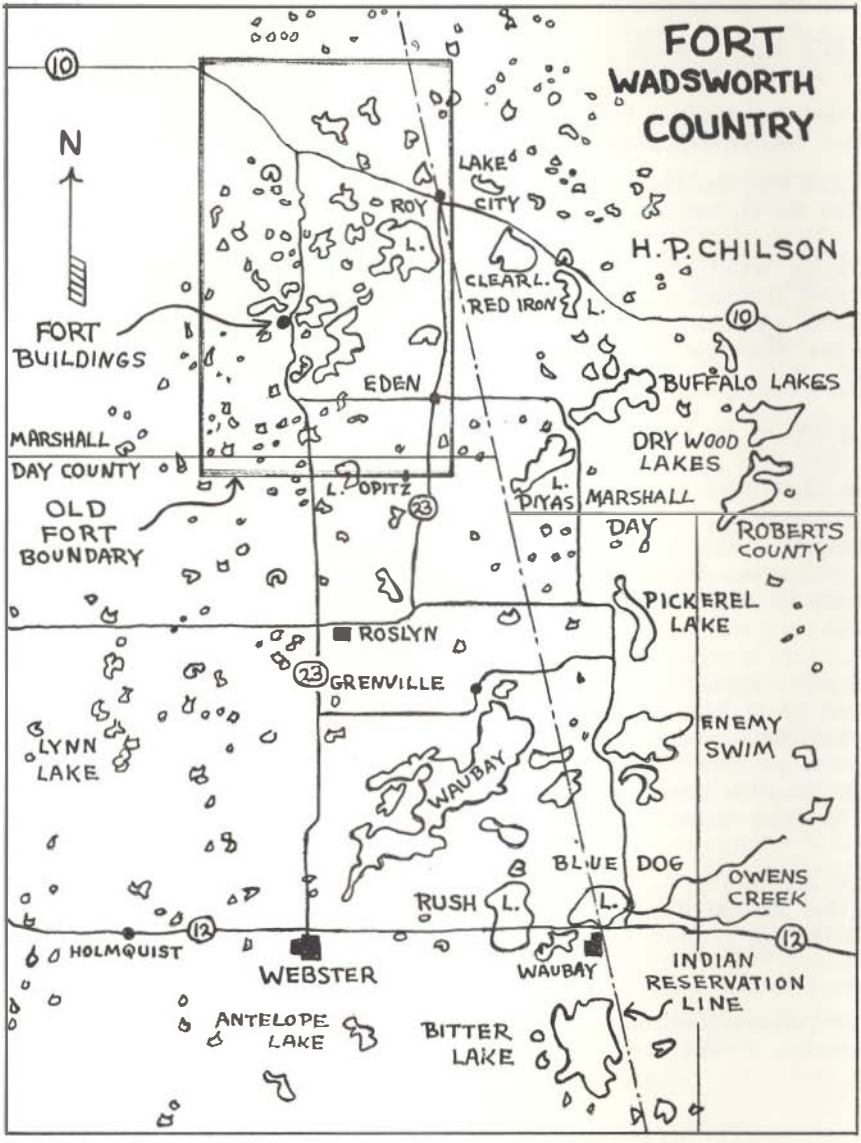
The halftones illustrating this article were furnished by Herman P. Chilson—Ed.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DOG
OWENS
CREEK
RUSH
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L.
12
12
HOLMQUIST
WEBSTER
WAUBAY
INDIAN
RESERVATION
LINE
ANTELOPE
LAKE
BITTER
LAKE

General Notes of Special Interest

SNOWY EGRET AT HIGHMORE—After the observation of the Common Egret I recalled a remark that J. W. Johnson made at one time to the effect that the best birds show up in the worst weather.

With that in mind, I started out about 4:15 on the afternoon of April 22, a day of rain, turning to snow, for a walk around our place to see if we might have anything new. A Great Horned Owl was flushed in the trees west of the yard. It flew ahead of me for awhile and then to the trees south of the yard. After following it to that location I stopped to scan the tree tops. A large bird flew up from the ground about 30 feet in front of me, and a blurred impression was immediately obscured by trees. Moments later it was above the trees and facing the wind. The position was a little to the front and left of me. Before the bird turned to go with the wind, I had time to get a good view with the binocular.

The shape of the bird made me think of water birds, but it was something that I had never seen before. It couldn't be the Common Egret because it was too small and its legs were too short. The trailing dark legs and yellow feet were the first points noted. The size was compared with that of the Great Horned Owl. The body sizes seemed to be similar, but the wings of the new bird were shorter, of a different shape, and held in a different position. The bird was braced at an upward angle against the wind, as opposed to a level, head-on position. The head and body looked like one unit, without a neck. The color was white to pale grayish-white. The bird turned and left before I could note details of the bank.

Peterson's **A Field Guide to the Birds,** and the Golden Press **Birds of North America,** were the references from which I decided that the bird was a Snowy Egret. If a picture had been taken of the bird at the time, it would look like the illustration of the Snowy Egret with tightly curved neck that appears on page 93 in the Golden book.

The occasion was marred by the lack of a second observer. I went out to the place twice afterwards, and drove to the refuge a mile south of our place, but didn't see the bird again.—**June Harter**

* * * *

OLD SQUAW DUCKS, IMMATURE SWAN, AND SANDHILL CRANES AT LAKE ANDES—Two Old Squaw Ducks were seen on the center unit of Lake Andes on December 4, 1967.

An immature swan was on the south unit, also on December 4.

Two Sandhill Cranes were on our trap site at White Swan Bottom on the same date.—**Ralph H. Town, Lake Andes, National Wildlife Refuge, Lake Andes**

* * * *

LEAST BITTERN FOUND AT HURON—In the late afternoon of May 22, 1968, Mr. Robert E. McQuillen, 59 Fourth Street Northeast, Huron, called to ask about a bird he had found in his yard. It was like a Bittern but much too small.

I hurried over to see it, taking along a Peterson **Field Guide.**

The bird was in a small covered pen. As I suspected, it was a Least Bittern, identical in detail with the picture in

Peterson's book: black crown and back, buff wings, greenish legs (the backs of the legs were yellow, I noticed).

No injury was visible on the bird but it was unable or unwilling to fly as McQuillen demonstrated by releasing it briefly on the lawn. He has noticed it in the front yard about noon that day and, finding it would not fly, had caught it.

This was my first Least Bittern, though I have been birding for a long time. I hurried home for Lucille, called Miss Blanche Battin, who joined us on the return, stopped to tell the Jonkels, who followed a few minutes later. Soon we were all back viewing the bird with August Saunders and Mrs. Saunders, neighbors of the McQuillens.

A heavy overcast prevented good quality photographs. But the next day was clear and, by 10 o'clock I was back at the McQuillens asking if I might get some pictures.

The bird seemed to feel noticably better than the evening before but still would not fly. When put out on the grass for pictures it wanted to walk away and clearly resented being blocked off. Yet, when picked up, it made no effort to bite hands or faces.

The Least Bittern is mentioned in all three of the volume indexes of **Bird Notes** and its nest has been described by Dr. Moriarty, who believes it fairly common though quite hard to find in the swamps it inhabits.—**J. W. Johnson, Huron**

* * * *

COMMON EGRET AT HIGHMORE—When Mr. and Mrs. Don Durfee looked out the morning of Monday, April 22, they saw a large, white bird standing in their backyard. Mr. Durfee had been reading about the Common Egret a few days earlier and there it stood, in his own yard. Dave Fisher, at Pierre, was notified and he drove to Highmore to confirm the identification. He said that the egret would probably stay there until the storm subsided.

Mr. Durfee phoned the news to me, and that was the beginning of a day that will not be forgotten very soon. I grabbed the necessary equipment and dashed to town. The egret was at the back edge of the lawn, facing away from the strong northerly wind, and the wet snow that had replaced the earlier rain. The typical large heron form, white plumage, long yellow beak and black legs were sharply outlined against the shrubbery and green grass. There was one moment when it moved into a position and setting for an ideal camera shot, but I got buck fever and ruined the picture.

When the egret was disturbed by too many visitors later in the afternoon it flew to the courthouse lawn. The protection provided by the building must have seemed preferable to intruders because Mrs. Clayton Jennings was able to take pictures at a distance of about 20 feet. The bird returned to the Durfee yard about 4:00—**June Harter, Highmore**

(Editor's Note: The color slide shows the white bird well and leaves no doubt of its identity. But, the black and white enlargement, a white bird against a background of snow on grass, left little contrast for the halftone to lose and so was not reproduced.)

* * * *

PARULA WARBLER AT HIGHMORE—The events of Monday, April 22, 1968, were climaxed in the evening when I called Mrs. Jennings about the pictures that she had taken of the Common Egret. She said that a small bird was in their garage. It was smaller than the House sparrow, and it had blue feathers on its back. Her description of its actions indicated that it was weak. When asked for more details she went to get them but couldn't find the bird. Later, it was found behind a tire, so I

went to identify it. Mrs. Jennings had put it in a box, in the house, so we had an opportunity to observe it closely. It was a male Parula Warbler. The white wing bars and broken eye ring, the yellowish patch on the dull blue back, the intense yellow throat and breast, the rusty-orange collar and the white belly were identical to those of the illustration in Peterson's **A Field Guide to the Birds.** The upper mandible was black and the lower one was yellow.

The cold, stormy weather, with snow, and the consequent absence of insects were apparently too much for the bird. It died the next morning. More notes, including measurements, were made for future reference. There was a band of dark feathers under the yellow throat feathers, but they were not visible when the bird was alive. A measurement of one-half inch was noted for the beak. That was the measurement along the side, from the tip to the hinge, or the point where the beak opened. When the bird was placed on its back on a ruler, with beak forced down, its length was 3¾ inches from the tip of the beak to the tip of the tail. The Golden Press guide, **Birds of North America,** gives the length as 3¾ inches, but Peterson's guide records it at 4¼ inches to 4¾ inches.

A Parula warbler was sighted in Highmore in May, 1961, and May 26, 1967. One was observed in our trees on May 27, 1967.—**June Harter, Highmore**

* * * *

'WILDLIFE WATCHING' POPULAR SPORT

"Wildlife watching," reports the Interior Department's Bureau of Sports Fisheries and Wildlife, was the most popular single recreation activity among an estimated 15.6-million visits to national wildlife refuges last year. The term includes bird watching, photography, and hiking or riding tours. The report also noted that the recreational use of wildlife refuges has increased 50 per cent since 1962.

A similar study a year ago reported that some 11-million Americans enjoy bird watching, including three-million bird and wildlife photographers.

Figures like this are one answer to the kind of person who believes that nature nuts are a small bunch of freaks who are harmless enough as long as they don't stand in the way of progress. The truth is that there are many millions who simply enjoy the outdoors, and the number appears to be growing faster and faster. Such a large body of citizenry never needs to be apologetic about expressing its views.—**Audubon Leaders Conservation Guide**

THE COVER

The two eagle pictures by Ed. Bry of the North Dakota Game and Fish Department were supplied by Jean Russell to illustrate her article on wintering Eagles. The context of space and text at the moment called for the separate arrangement. A third picture is being retained for some future occasion.—Ed.

South Dakota Wintering Eagles

Jean Russell

A SUMMARY of wintering eagle inventories in South Dakota was printed in South Dakota Bird Notes XVII (No. 3) September, 1965. That article, written by George M. Jonkel included a summary from 1960-61 through 1964-65. This article is intended to summarize the eagle situation from a national standpoint, and bring the inventory record up-to-date, to the 1967-68 winter count. Points of interest were obtained from Alexander Sprunt, Research Director of the National Audubon Society, Game and Fish Parks personnel, Warren Jackson, Charles Keeler, and U. S. Game Management Agent, David W. Fisher. It would appear that the South Dakota aerial survey actually counts about half the South Dakota population. Perhaps there are a number of eagles that have been counted and recounted; but the margin of error is about the same percentage year after year, so the jump in eagle population noted this year must certainly reflect an increase.

(*See Note I Below)

*In 1961 the National Audubon Society, deeply disturbed over the continuing decline of the bald eagle, began an investigation designed to find out why this magnificent bird has been decreasing so alarmingly. One of the significant facts that came out of this study was that the bald eagle, the United States National symbol, is not producing as many young as it should. Only 41.2 per cent of 487 nests under breeding observations in the contiguous 48 states produced young eagles in 1963.

Whereas in 1962, the second year of the National Audubon Society's Continental Bald Eagle Project, studies had revealed a slight increase in the eagle population of the 48 state area, in 1963 a slight overall drop in the reported number of eagles was evident. A total of 3,547 birds were counted in 1963 compared to 3,807 for 1962. This 260 bird decrease represents a reduction of 6.8 per cent in the total bald eagle population. Changes in distribution forced by the cold weather coupled with a regretable lack of coverage in one or two key areas could easily account for this slight drop. It is doubted that, with only three year's figures to draw from, any significance can be attached to this slight reduction in overall numbers. Actually, the figures for the January count in the three years are remarkably similar; 3,642 in 1961, 3,807 in 1962, 3,547 in 1963—less than a seven per cent variation in all three counts.

The percentage of immature eagles, however, has shown a slight decline for the second year. In 1961, 26.5 per cent of the eagles reported were immatures; in 1962 this count dropped to 23.7 per cent of the total. In 1963, it again declined to a low of 21.6 per cent of the total reported, a decline of 4.9 per cent in two years. This continued decline in the percentage of immature in spite of irregular fluctuations in the total number of eagles reported gives definite grounds for believing that not enough young eagles are being produced.

The eagle is still being shot in large numbers. Of 118 dead eagles, reported in 1962 letters, newspaper articles and similar media, 91 or 77 per cent were shot. Eleven eagles (nine per cent) were found cause unknown and eight (seven per cent) were caught in mink, muskrat, or other fur-bearing animal

traps. Another seven per cent died from such causes as attack by other animals, power line electrocution, and even from heart attacks.

Since shooting is still the major cause of loss, a nationwide campaign should be launched to develop public sympathy for the plight of eagles and cooperation urged for their protection. There is an urgent need to teach people, especially hunters, to recognize eagles in all their plumages.

Mr. Alexander Sprunt of Tavenier, Florida inventoried eagles in 1966-67 (January).

INVENTORY BY ALEXANDER SPRUNT, 1966-67

	Bald Eagles					
	1966			1967		
	Ad.	Imm.	Tot.	Ad.	Imm.	Tot.
1. Sioux City to Gavin's Point Dam	40	23	63	75	54	129
2. Gavin's Point to Ft. Randall Dam	62	25	87	212	80	292
3. Lake Andes NWR	—	—	—	—	—	—
4. Ft. Randall to Ft. Thompson	61	22	83	31	9	40
5. Ft. Thompson to Oahe Dam	56	31	87	30	21	51
Totals	219	101	320	348	164	512
Percentage of Adults and Immatures	68.4%	31.6%	100%	68%	32%	

The following are percentages of of young Bald eagles from Mr. Sprunt's previous information: February, 1963—24.7 per cent; January, 1964—38.8 per cent; January, 1966—31.6 per cent; January, 1967—32 per cent.

Warren Jackson, Game, Fish and Parks Department, had the following remarks relative to the eagle survey: "The only recorded observations I made of eagles is during the mid-winter waterfowl and eagle survey, in an area just above and below Chamberlain over 200 eagles were counted in the survey on January 3, 1966 (two years ago) and 13 were observed on January 8, 1968. This year more birds were seen in the area from Oahe Dam downstream to Antelope Island than on any other stretch from there down to Ft. Randall Dam. Two mature bald eagles were sighted on the White River, 20 land miles upstream from its confluence with the Missouri River. No doubt mature bald eagles frequent areas out from the Missouri but this is my furthest observation this year. Golden Eagles are commonly seen throughout Lyman, Tripp, and Gregory counties."

Charles Keeler, also Game, Fish and Parks Department has made a statement to the effect: "According to my notes, for the year 1965-66 eagles were observed while conducting the mid-winter aerial survey between McCook Lake and Ft. Randall dam, a distance of about 120 miles on the Missouri River. Of these, 75 were seen west of Greenwood, which includes the 51 eagles observed at the Ft. Randall State Game Bird Refuge, between the Nebraska state line and the dam. On January 4, 1966, eagles ranged from Ft. Randall Dam to at least within four miles of

McCook Lake. Thirty-nine of the 161 were Golden Eagles."

"On January 9, 1967, only 19 eagles were observed on this same stretch of the river. All were Balds except two, and the birds ranged from Ft. Randall Dam to a point straight south of Burbank in Clay County. Seven eagles were seen at the Ft. Randall Refuge."

"This year, on January 8 and 9, 156 eagles were counted. All appeared to be Bald eagles, except one immature Golden, and they ranged from Kensler's Bend, south of Elk Point, to Ft. Randall. Of the total, 110 were seen west of Greenwood, and 63 of these were at Ft. Randall Refuge. The largest single roost was located in a tree near the water, directly south of the Ft. Randall Recreation Area, where 27 Bald eagles were observed."

Thirteen eagles were observed feeding in the open waters below the Oahe Powerhouse, December, 1967. This figure has altered somewhat, and to date one or two can still be seen in this area.

SUMMARY OF EAGLES INVENTORIED IN SOUTH DAKOTA

	BALD			GOLDEN				
	Adult	Imm.	Total	Adult	Imm.	Total	Unident.	Total
January, 1966	116	6	122	38	1	39	—	161
January, 1967	113	20	133	124	26	150	14	297
January, 1968	237	45	282	94	14	108	42	432

I think these figures can be accepted as a general trend but there may be a variation in accuracy of different persons making the count.

The 1967 Audubon Christmas Count for the Lake Andes area showed 130 Bald and two Golden eagles in the short stretch of about one mile below Ft. Randall Dam. Twenty-nine Bald and seven Golden eagles were seen on this count in 1966.

During the winter months Bald Eagles can be readily observed over the water catching fish or perching in large trees along open stretches of the Missouri River below Ft. Randall Dam. They are common also at Gavin's Point, Ft. Thompson and Oahe Dam.

The bald eagle, like all living things, needs its own particular conditions in which to live, grow and have young. It likes high trees, for a big nest. It must be near water, for its food is mostly fish. It needs space, for it is fiercely independent. As we build cities, airports, factories, highways, seaside resorts, we have been moving too close to the nesting places. We pollute waterways and so kill fish. Trees are cut down. Some eagles are shot illegally. Several steps have been taken to save the eagle, but they are not enough. We should do more, set aside, by purchase or other means, large tracts around nests near waterways. Encourage persons and organizations who own land to keep inviolate trees and space for eagles. Learn—all of us—about the eagle's plight, and remember it is part of a larger problem—the task of protecting for the well-being and enjoyment of all Americans always the resources, green spaces, and things of the spirit with which our country is blessed.—**(1-National Audubon Society, Audubon Nature Encyclopedia, Vol. 3)**