

SOUTH DAKOTA BIRD NOTES

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Whole No. 45



Yellow-breasted Chat and Young

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President's Page

THE formative years of SDOU are over. Our organization is well established but, as we go into our twelfth year, let us rededicate ourselves to the aims of SDOU to "encourage the study of birds of South Dakota and to promote the study of ornithology by more closely uniting the students of this branch of natural science."

Each of us can contribute to South Dakota bird studies if we keep notes on any birds now nesting in our yard. Printed Sight Records for such observations are available. Just write to Herman Chapman for several. The sheet helps observers by listing things to look for such as: Habitat, Number and Species seen, Nesting and Singing activities. Do not be discouraged if you cannot fill all the blanks but do send your records to the editor.

We can contribute farther by helping in migration studies. Our fall records are sparse. The fall migrants, with obscure plumage, are confusing. All the more reason to jot down the arrival, peak dates and departure dates of fall migrants and the departure dates of the summer residents. Do not forget to get out your telescope with at least a 15-power lens to study fall migratory movements across the face of the moon. During the winter, list any



northern species. Remember that any interesting bird experiences are welcome by our editor for General Notes of Special Interest. This has always been a popular section of Bird Notes. Let's keep it interesting.

This year SDOU has decided to take a definite stand on bird legislation. We now have a Liaison Committee which has hopes of working with South Dakota Federation of Wildlife and other organizations, acquainting the personnel with our organization and talking over possible bird legislation in the state with them. In order to get the viewpoint of the members of SDOU, the committee will circulate some kind of questionnaire. When this does appear consider it thoughtfully and be sure to return it promptly.

An intensive SDOU membership drive is on. Free samples and a circular are being sent to about 300 prospective members. A Junior Page is being added to Bird Notes to attract the younger bird-watchers. If you know of prospective members in your community, let us have their names.

Bird study is a wonderful hobby. The birds are always with us. There are many people in all walks of life who are willing to join us and to poke fun at us too, sometimes. Did you see the recent cartoon? Here two robins are saying to a queer-looking bird: "Say, would you be interested in coming North with us to have a little fun with the Hempstead, Long Island Bird-watching Society?"

—Ruth C. Habegger

Observations On The Life Of The White-winged Junco

N. R. Whitney

THE Black Hills are outstanding in many ways, but ornithologically they are unique. Not only are they the meeting place of eastern, western, and northern species of birds, but they are also the home of one endemic species, the White-winged Junco. This fact was brought to my attention shortly before we moved to Rapid City, and since we have been here I have concentrated my field work and especially my banding on this one species.

In the spring of 1956, I sent some notes on the behavior of the species, based on banding studies, to Wendell Taber of Cambridge, Massachusetts, the chairman of the committee to complete the Bent Life History series, and he informed me that no one had yet accepted the assignment of preparing the life history account of the White-winged Junco. I volunteered to write such an account, and here I want to report a few of my findings. A full report will be found in the forthcoming final volume of the Life Histories of North American Birds: Fringillidae (part 2) by Arthur Cleveland Bent, and published by the Smithsonian Institution.

The White-winged Junco is a numerous breeding species throughout the Black Hills, and is found in spruce forests and aspens as well as among the extensive stands of ponderosa pine. In winter, they can frequently be found in the brushy stream bottoms of the foothills, but during the breeding season most of the population is in the higher Black Hills.

The specific incident which I had

originally sent to Mr. Taber was the fact that a junco banded in early March 1956 at an elevation of 3500 feet, appeared at another feeding station at an elevation of 4500 feet and 15 miles from the original point of banding two weeks later, after an interval of mild weather. It then remained at the latter locality until the breeding season.

White-winged Juncos winter in small numbers on the breeding grounds, and in presumably large numbers around the foothills and south into Colorado, Kansas, Nebraska, New Mexico, and occasionally Arizona. During the spring they move onto the breeding grounds, but I have no information as to the average time nor as to whether the first birds on the breeding grounds are those that wintered in the foothills or in Colorado. The winter flocks break up in spring, however, and the male juncos begin singing and proclaiming their individual territories.

In the March, 1930, issue of the Wilson Bulletin is an article by Over and Clement describing twenty-nine nests of the White-winged Junco in the Black Hills. Natural sites were under logs, under tree roots, and under rock ledges. Several artificial nesting sites were also found. This article was reprinted in its entirety in South Dakota Bird Notes, vol. 3, no. 1, pp. 7-9, 1951.

In the course of my own studies, I have found seven nests. Two of these were under projecting slabs of limestone, three under sod banks, and two in small niches of limestone cliffs. From these observations, I think that when a pair of White-winged Juncos

selects a nest, they want a roof immediately over their heads. In this respect, they are probably very much like the other species of juncos.

When I reviewed all the literature I could find in looking for items of interest on this species, I was unable to find any hint of the incubation period, and therefore I made such a determination one of my main objectives. For the first three years, I was unable to find any nests until after the eggs had been laid, but in June, 1959, Mr. and Mrs. Lawrence R. Lenz of Detroit, Michigan, who were visiting Palmer Gulch Lodge, found a pair of juncos building a nest nearby. They showed me this nest when it contained only two eggs, and by means of marking these two eggs I was able to prove that they remained in the nest fourteen days before hatching. Two eggs laid subsequently hatched about the same time, and therefore I concluded that the incubation period is approximately twelve days, and almost certainly between eleven and thirteen days.

In her first volume of *Studies in the Life History of the Song Sparrow*, Mrs. Margaret Nice states that in thirty-two instances when she determined the incubation period in Song Sparrows, she found a twelve-day incubation period in seventeen cases and a thirteen-day incubation period in twelve cases.

The Palmer Gulch nest was thirty-five miles from my home, and was impossible to visit regularly. Prolonged observation during the critical periods of laying and hatching will be necessary in order to determine the incubation period more precisely.

The young remain in the nest for eight to ten days. When first hatched, they show black skin and are nearly naked. Their eyes are closed, and they gape straight upward when a parent brings food to the nest. By the age of

about 6 days, the wing and tail feathers are beginning to break through their sheaths, and banding is feasible. By seven or eight days the wing and body feathers are well developed, but the tail is still short.

Immediately after leaving the nest, the young birds are still unable to fly, and they therefore look for places where they can conceal themselves on the ground while being fed by their parents. All of my observations suggest that the young birds remain with their parents for the rest of the summer, and that a pair of White-winged Juncos that has successfully raised one brood makes no attempt to nest a second time the same summer.

White-winged Juncos have three distinct vocal sounds which I have been able to distinguish. The first is the song, which is heard only during the spring. It sounds to me much like that of the Chipping Sparrow, but is more musical. A song heard on May 30, 1960, at Jewel Cave, began as a typical song of this sort, but ended in a lower unmusical roll, and was very confusing until we found the singer. The other two notes, heard frequently in winter, are a high musical squeak which seems to be used to warn other juncos to avoid the strongest individual, and a loud chip which apparently is a danger call.

In winter, White-winged Juncos can be found in most brushy areas of the foothills. One experience of mine suggests that individual flocks, however, have a limited winter territory. In January and February of 1957, I had a temporary banding station at the home of Dr. and Mrs. Ray Lemley in the Ridge Park area of Rapid City and about three-quarters of a mile south of the home and banding station of Harry Behrens. During this period, I banded 100 juncos and Behrens banded

(Continued on Page 41)

Problems of Wildlife and Drainage

Robert Weber

TODAY we are facing a water shortage. Tomorrow allocation of water, by one means or another, is a certainty.

The purpose of this paper is to show the need of the pothole, slough, and other local waters for preserving the duck population and wildlife generally. If our enjoyment of wildlife is to continue, we must preserve our wetlands.

Careful study will be needed to work out a wise plan for the use of these wetlands when the demand for farm land is high. Today as never before water is being drained from areas needed by wildlife. Yet some areas being drained at high cost may still be unsuitable for farming because of unfertile or rocky soil. Crops on some drained land have still drowned out because adequate drainage for agriculture is not feasible in wet years. Still, due to ditches, the water is not held long enough to be of value to wildlife. Only in dry years can areas like these be economically cropped.

In a recent interview a Lake County farmer said, "As far as drainage is concerned, I don't think it should be practiced too much around here. I have a slough on my farm which has been drained quite properly. It has been drained for years and crop planting has been practiced with little result. I've had a good crop coming up, more advanced than in my other fields; but one good heavy rain drowns it out. Now I use it for pasture and it is good for that. In the long run I feel a farmer will lose money by draining and cropping in this area because of our changing weather. I think that if this land is

drained at all it should be used for pasture."

As is expected, the game biologist will be in favor of preserving the pothole or slough, if at all possible; however he looks at the slough as a benefit to the farmer as well as to wildlife. As well as the soil conservationist, he knows that the slough or pothole will keep the ground water level up.

The conservation of sloughs and potholes requires that, during the dry years, when the slough is dry, it would be more beneficial to wildlife if not farmed. The vegetation gives food and cover for wildlife. However, even if sloughs are farmed during dry years, drainage systems should not be built for the wet years to follow.

There are still further benefits of the marsh or slough that people do not recognize. Muskrat, beaver, mink, and other fur-bearing animals utilize sloughs. Altogether, at least 50 fur and game species in the United States, exclusive of waterfowl, inhabit wetlands to secure food, water and cover. When determining the feasibility of a wetland reclamation project, values of game and fur animals deserve at least equal ranking with waterfowl.

The South Dakota pheasant uses the slough and its surrounding vegetation for cover, nesting, and water.

Records by the State Game and Fish Department of South Dakota show that index breeding in 1957 was 5.3 ducks per square mile compared with 1953's 13.6 ducks per square mile, and it is more than likely that the index has continued to decline in the past few years.

Probably the biggest cause of this drop is the lack of water in potholes and sloughs. Other obvious factors may be predation, drainage, vegetation and abnormal sex ratios.

Of the ducks of South Dakota the Mallard is a favorite of sportsmen and reproduces in South Dakota where the environment is suitable. It generally builds its nest on or near the edges of prairie ponds or sloughs where the ground is dry or only slightly marshy. It does, however, often nest in open prairie, frequently at long distances from any water. Normally only one set of eggs is laid each season and the number may range from 6 to 15 but the usual clutch is from 8 to 10. In heavily wooded areas the Mallard will sometimes nest in trees as high as 25 feet from the ground.

The Mallard could be one of the greatest assets to a farmer if he has a pot-hole or slough on his land. In 1914 Dr. S. G. Dixon published an article in the *Journal of the American Medical Association* stating that two dams were constructed on a stream so that the ponds had the same conditions. One was stocked with goldfish and the other with twenty Mallards. After a short time the duck pond was entirely free from mosquitos while the fish pond was teeming with young insects in different cycles of life.

The Mallards were then transferred to the other pond and within 48 hours had cleaned up nearly all insect life, showing that Mallards are good destroyers of mosquitos. Complaints stating sloughs produce too many insects may be met by saying, "Let the Mallard nest and the insect life will be held in check."

The Blue-wing and Green-wing Teal are much alike but still differ in some respects. The Blue-wing Teal will be

found in greater abundance in South Dakota because the Green-wing migrates farther north. They are both surface feeders and find their sustenance in shallow, muddy ponds, creeks, and ditches, and along the reedy shores of lakes; however, the Green-wing is more a vegetarian than the Blue-wing. It has been found that the Blue-wing consumes up to three times as much animal food as does the Green-wing. Even in a low water area the Teal will reproduce if animal matter and varieties of vegetation are present, such as sedges, pondweeds, smartweeds, algae and water lilies.

The American Pintail can easily be recognized in flight by the long slender neck and tail. The white edging at the rear of the wings of both sexes is a good field mark. The Pintail has the widest breeding range of all ducks but can be persuaded to settle in the shallow waters of South Dakota if conditions are suitable. They, like the Teal, are shallow water feeders on vegetation.

Many people believe the Wood Duck the most beautiful of wildfowl. Seeing this species for the first time, one would never forget it. The Wood Duck does reproduce in South Dakota but in very small numbers because of the lack of trees and water. It always nests in trees or in some elevated object.

The Redhead, a medium-sized duck is found on both marshlands and open bodies of water deep enough for the divers. It is similar in color to the Canvas-back but can be distinguished quite easily because of its chunky body. The Redhead nests among the rushes of shallow marshes and ponds, where the water is not over a foot deep. The nest, made of dead reeds, is deeply hollowed and lined with light-colored down. It is held in place by the reeds growing around it. The eggs usually

number from 8 to 10, and incubation is about 28 days.

The Canvasback has been known to reproduce in South Dakota, but not in numbers. At the present the Canvasback population is down 57% from a few years ago. Its food is mainly vegetable matter, which makes up about four-fifths of its diet. These birds are divers and will go to depths of 20 to 30 feet for food. If a Canvasback is crippled by a hunter it is almost impossible to retrieve the bird because of its diving techniques.

The Canvasback usually nests in hullrushes and reeds of western sloughs and swamp areas. Its nest is generally well-concealed and is usually clear of the high water level. It is an exceptionally large, well-built structure, made of dry reeds, flags, and sedges copiously lined with down. The number of eggs usually is from 7 to 9. The advance of civilization and the reclamation of marshy areas, is a serious menace to these slough dwellers; they are gradually being forced farther and farther north to less suitable and congenial districts, with consequent heavy decline in numbers.

The Shoveller, better known by the sportsman as the Spoonbill because of its large bill, is a surface feeder, but still makes about one-third of its diet of animal matter. The mating of the female Shoveller differs from that of most other female ducks because she takes two males.

The nest of the Shoveller is a hollow in the ground, sparingly lined with dry weeds and surrounded by a rim of down. It may be away from water but preference is for an area near a pond or slough. The clutch is usually from 10 to 12 eggs. When first hatched young Shovellers have no longer bills than those of other surface-feeding

ducks but the bills seem to grow at a faster rate than the little birds themselves. The Shoveller loves warm weather and will move out of an area as soon as the first frost bites.

The Ruddy could be considered as a cute little fellow his back glowing with rich red-brown of his nuptial attire, offset by the pure white of his cheeks and his black crown. Above all his bright pretty sky-blue bill makes him a handsome sight. For its nesting place the Ruddy Duck seeks prairie sloughs or wherever it can find thickly-growing bullrushes, flags and tall weeds. The nest is a basket-like structure that matches its surroundings.

A surprise is provided by the eggs of this species. The female, one of the smallest of the ducks, weighing about one pound, lays enormous eggs. Ducks three times her size lay substantially smaller eggs. The eggs may be laid in a period of 15 days and the total weight of the eggs may be three times the weight of the mother. The male Ruddy is the only duck of its sex that assists in the raising of the two broods produced each season.

The Baldpate, especially the male, can be considered a handsome bird in its winter plumage with its shining white crown. The nest of the Baldpate is always on dry ground and usually a considerable distance from water, which makes the birds subject to predation. They are late breeders and laying is usually not completed until middle June. The average number of eggs is from 9 to 11.

The Baldpate feeds on or near the surface by dabbling in the mud or tipping up in shallow water. An examination of the stomach contents of 229 Baldpates taken from 25 states, 4 Canadian Provinces, Alaska, and Mexico showed the diet to be over nine-

tenths vegetable and gave the following percentages: pondweeds 43; grasses 14; algae 8; sedges 7; wild rice and water weed 6; other plant food 10; which gives vegetable food 93%. The remaining contents were Mollusks and insects.

Gadwalls appear as medium-sized, greyish-brown ducks, with head and neck noticeably paler. Whenever possible, the Gadwall will choose an island as a site for its nesting, which is in the northern breeding regions. It builds in meadows or on prairies. It lays from 7 to 19 creamy-white eggs but the usual set is from 10 to 11. The Gadwall is one of the few surface feeding ducks that can and does dive for its food; usually it feeds by dabbling in the marshes and sloughs.

An abundance of all ducks is produced if the right conditions of habitat can be obtained, because the average brood of each female is near 10 in most cases. But drainage of wetlands, potholes, and sloughs reduces duck production.

At the present time many clubs, organizations and national game administrators are working on this issue. A recent discussion by game administrators from Canada and the United States developed that about 85% of the ducks shot in the United States were produced in Canada; therefore duck stamp money from the State side should be spent on potholes north of the United States border. Many national newspapers are urging spending of federal funds on important Canadian breeding grounds. Many feel that the price of the duck stamp should be raised and that more money should be set aside for preserving good water habitat.

The 1959 Legislature of South Dakota, at the request of the sportsmen, set aside nine dollars of each non-resident license for the purchase or lease of property primarily for game produc-

tion. The Legislature specified that no more than 25 per cent of the fund could be used for its administration or for improving or maintaining production areas.

Now that there is a little interest in both state and federal governments for preserving appropriate habitat for ducks let's take a look at the water situation of the future. In 1959 Saskatchewan's potholes were dry in many places but the outlook is much better now. Snow piled up in huge amounts last winter. A quick thaw practically assured necessary water to refresh marshes and put ducks back into good reproduction. The northern half of North Dakota, the greatest Stateside duck producer, was blanketed with the heaviest snow in several years. Water conditions appear much improved in South Dakota, an important producer and feeder of the Central Flyway migrations. Snowfall was much heavier than last year. The Sioux Falls weather station registered more than four times as much moisture from October 1st to January 31st this past winter as compared with the season before: 7.71 inches and 1.64.

The water is here and many ducks are making their homes on the potholes and sloughs. There is an abundance of water now, but not a capacity level. This could be considered a building year for ducks.

Many sloughs are full of vegetation and open water is hard to see, but there are ducks in them.

The water outlook is better, but much depends on the precipitation in the months to come. This will determine whether South Dakota will redeem the potholes, the slough, the duck population. If the water comes back,

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Our Juniors

WE HAD hoped to open this department with at least one article by one of our junior members. But that didn't work out; so we will try to have it for later, along with others.

We are all interested in the work of our junior bird students. Their help is needed now as never before in adding to our growing store of knowledge before many of our wildlife species are gone forever.

As an example of what we see coming in the future, our lovable little burrowing owl, that used to be so common everywhere in South Dakota has almost disappeared from our state in the last ten years.

We need to know more of the why, so that we can know better how to prevent other such tragedies. And there never can be enough help in the collecting and organizing of knowledge.

For junior students, space will be provided in Bird Notes for reporting their work; we hope they will have enough confidence in their findings to make use of it. Remember that all knowledge is simple—after you have it.

So do not be afraid to write us of these things you have observed about birds. No matter how simple it seems, it still may be new and wonderful to the old timers. Just be careful about your observing and be sure about what you see. Then write us about it.

This department will be conducted by Mrs. Clara Yarger of 2742 W. St. Anne, Rapid City. She will write you some general background pieces—until your material crowds her out. You can write her direct or send it to me for passing on to her. She will take over right below this introduction.—The Editor.

Dear Junior Birders:

By the time this page reaches you, several weeks of your vacation will have gone by. Many birds will have raised this year's family of young. Perhaps you will have watched some birds building a nest and feeding their young. Or maybe you will have taken a trip and added some new birds to your sight list.

Beginning with this issue, BIRD NOTES will have a Junior Department. It is the hope of the adult members of S. D. O. U. (South Dakota Ornithologists Union) that you will use it as a "Sharing" page. Sharing is one way of learning and enjoying birds in other parts of our state. So all of you be

thinking of a bird experience you have had, write it down (it need not be very long), and send it to me or to the editor, Mr. J. W. Johnson, Huron, S. D.

Some birders started their vacations this year by going to the S. D. O. U. Convention in Rapid City. One part of the program you would have liked especially was the talk by Mr. Chace of the Reptile Gardens. He told many interesting things about snakes and showed some live ones, including a rattler.

Perhaps it seems odd to you to have a talk about snakes on a bird program. But it really isn't so odd since scientists tell us birds are descendants of

reptiles. Two skeletons of prehistoric birds were found in Bavaria, Germany. They were the size of small pigeons and looked like small two-footed dinosaurs except for one thing: they had feathers.

In all other ways they looked as much like reptiles as the dinosaurs who were living at the same time. They had teeth, claws, and long tails. Their senses of sight and balance were greater than other reptiles. Their wings were small, so probably they were not good flyers. They were named *Archaeopteryx* (ar-ke-op-ter-iks) and *Archaeornis* (ar-ke-or-nis).

The known history of birds jumps from there down to a much later time. Next, the remains of two kinds of water birds were found in Kansas and South Dakota. The smaller of these had a tern-like shape but still looked like his ever-so-great grandparents, the reptiles. The larger of these two was about three feet long, having no wings. His hind legs which were long and

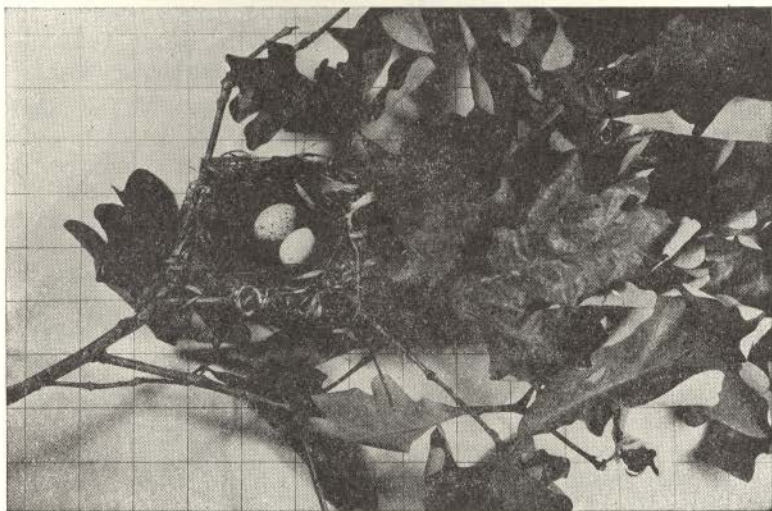
powerful, were used for paddles in the sea.

As millions of years went by these birds must have grown wings and learned to fly. Perhaps the reptiles jumped from branch to branch like flying squirrels or perhaps those two-footed runners ran and jumped. While they were doing this, the scales on their front limbs gradually changed to feathers.

Few fossil records of birds are found because their bones are thin and brittle. The big difference in birds is in the feathers. The skeletons are all very much the same. Of the few fossils known, several have been found in South Dakota. It is possible that you yourself might find the next fossil bird near your home or along the Missouri River.

Whatever you find, alive or dead, be sure to share it with others. We will be looking for your story in BIRD NOTES soon.

—Clara Yarger



Nest of Red-eyed Vireo

—Courtesy, Wilson Bulletin

Birds' Nests Of South Dakota

L. J. Moriarty

IT APPEARS your Secretary-Treasurer has let himself in for another project, one that stems from an interest in bird nests dating back to the days when he was one of those "very bad young boys" some forty-five years ago in the James River Valley of South Dakota.

At that time he decided to make a collection of all the varieties of birds eggs he could find. Let it be said in extenuation that at that time there were no laws in the State prohibiting such activities. Also he took only one freshly laid egg of each kind.

As I recall at this late date, there were nearly 80 eggs in all, blown and glued to cards with the common names only, placed in a glass case made from parts of an old bedstead and glass. When I went to College the case was put in the attic, via a small crawl hole through which I might have trouble in returning.

My birding equipment consisted of a wobbly telescope obtained by saving coupons and bird picture cards taken from Arm & Hammer soda, along with the youthful ability to climb trees to dangerous places, and wade sloughs by the day in an old pair of pants and tennis shoes.

This interest has continued thru the years with time off for formal education and courting seasons. In the last ten years or so I have been attempting to duplicate and enlarge on this project by taking colored pictures of the nests with eggs and/or young, making some notes on type of construction, favored location, clutches, etc.

Believing that published information on this subject is fairly meagre, the proposal is to write what I have learned about the nests and eggs of one or two species in each issue of "Bird Notes."

Since the project is not and probably will never be completed I shall present first the nests with which I am most familiar, giving a chance to enlarge upon knowledge of those remaining, some of which I have never been able to photograph.

It will readily be seen that the Woodpeckers, Kingfishers and like type of nests are not practical subjects and in these later years I have not destroyed nests by digging. The series may be disappointing but can add to the knowledge of the birds of South Dakota only as it reaches print. I do not really believe that I have discovered anything new except to myself, but at least, it has been an absorbing study.

I wish that any of you who have been privileged to see and study any of the less common nests would write me personally with descriptions in as much detail as you can, so I can put it on a card in my files to be quoted, giving proper credit. I fully realize the danger of drawing conclusions from a few observations, and that materials, locations, etc. may well vary greatly over the state; no word can be final except in the mind of one observer. However, the material may be of some use if a new book on the birds of South Dakota is ever compiled.

In any event knowledge gained and kept to oneself can never be of value to anyone else and progress in any field

would be extremely slow if everything had to be learned anew by each generation with no reliance upon previous knowledge. With these preliminary statements I will launch myself into the project which I only hope will be of interest.

Please feel free to write me any additional knowledge you have with corrections of the many errors that I will probably make . . .

302 New Midland Bldg.
Watertown, South Dakota

BIRD NESTS OF SOUTH DAKOTA

I.

Western Kingbird (*Tyrannus Verticalis*) #447 A. O. U. checklist.

From my earliest recollection these noisy birds liked to nest in towns either in a crotch of rather upright branches of cotton woods, elm and ash, usually at least fifteen or more feet above ground. In the early days many nested on cross arms and wire connections of telephone and power lines.

Of late years I failed to find them using this location. Often possibly due to more trees maturing in the eastern part of South Dakota as these birds seem to prefer rather mature scattered trees and defend a comparatively large area against their own kind and at least the Eastern Kingbird in addition.

Nesting is often in an isolated tree where they can have a good view and perch to defend and gather flying insects. The grasshopper is one of its best sources of food for the young in that season.

This bird will defend the nest avidly and attempt to rout an intruder and in my experience is not at all likely to abandon the nest at any stage as some birds are inclined to do. At least in no instance in my experience has one abandoned the nest. When one moves away the nesting bird rather quickly

goes back directly to the nest with no apparent attempt to deceive by taking a circuitous route.

The nest is well made and rather rough on the outside using coarser material for the outer layers, progressively smaller grasses, feathers, wool, twigs, string, cloth and plant down finely woven and ending with circular weaving of rootlets and horse hair, where available. The cup is very round, smooth and quite deep, measuring about three inches in diameter by nearly two inches in depth.

The usual number of eggs is from 3 to 6. Very commonly 5. The eggs being ovate with a pinkish white background, blotched and spotted largely on the larger end with a beautiful chocolate color. The larger blotches near the greater circumference.

II.

Eastern Kingbird (*Tyrannus Tyrannus*)
#444 A. O. U. list

The nests of this close relative can best be described by comparison with the preceding Western Kingbird. The nest is so nearly identical it would be dangerous to attempt identification from the nest alone.

However, in earlier years this species did not nest as much in town as the former. The Eastern is found nesting more often near water and at a lower level, being located these days (in the eastern part of the State, at least) in the lower outside rows of the shelter belts, common in plum, Russian olive and the like, very often at a level easily reached.

The nest if anything is a little looser and coarser on the outside, possibly a little shallower inside, constructed of the materials of the former but less likely to contain string, paper and

(Continued on Page 41)

General Notes of Special Interest

BURROWING OWL DECOYS—On July 10, 1960, southwest of Madison, S. D. (4 mi. west and 4 ½ mi. south of Franklin), Herbert Krause and the Chapmans noted a Burrowing Owl on a pasture post. After careful study by the observers and the observed, the former decided to flush the bird, thinking it might go to a nesting burrow. Shouts and waving arms were unavailing, so a pebble was thrown. As it rolled in the pasture grass a short distance from the post perch, the owl dove upon it. As it stood upon its "prey" the bird held its wings spread in typical bird-of-prey posture, with some apparent movement of feet and legs and a bit of peering down, too.

Just to prove that we had really seen a perfect example of decoying, another pebble was thrown near the bird. There was another hasty pounce but this time there was instant rejection of the "prey."

The bird then flew a few rods away and dropped out of sight. As we approached this area the bird flew several rods away, where it alighted in short grass, where it stood bobbing in characteristic fashion.

The head of another owl was then seen in a burrow nearby. Our approach was greeted by its harsh, sharp calls. On flushing, this bird flew around us giving a longer series of similar calls. At the entrance of the occupied burrow we found pellets consisting mainly of beetle shells, with no bones or feathers. There were droppings at the mouth of the burrow.—II. F. Chapman, Sioux Falls, S. D.

BONAPARTE'S GULLS AND GOLDEN PLOVER NEAR LAKE HENRY—April 23, 1960, toward evening, our party turned homeward from Lake Henry. A light rain was falling; it had been raining intermittently all afternoon as we worked about the area of Spirit Lake, Mud Lake and Lake Henry. The fields were sodden with the moisture and dotted with pothole ponds of ducks and gulls; these kept diverting our attention from the spectacular concentrations of geese we had come to see.

Scores of Franklin's Gulls were about all day; so, in the late afternoon, in poor light, under the heavy clouds, as we came by a pothole we nearly passed off its birds as "just Franklin's Gulls." But one of our party saw some waders.

We stopped. Godwits, both marbled and Hudsonian, were energetically prodding the mud. Someone else noticed that some of the gulls had white heads, were smaller than the Franklins—yes, and they had a conspicuous dot back of the eye.

Peterson's and Pough's guides flew open and soon identified them for us as Bonaparte's Gulls. There were eight of them.

We had still another thrill at this same pond when we looked farther on with our glasses and found two Golden Plover. These flew into the adjacent muddy cornfield. We moved a bit closer and found a flock of twenty or more Golden Plover among the broken cornstalks.

Our party consisted of Mrs. Hubert Kettle, Mrs. J. W. Johnson, Miss Mary Aberdeen Kettle, and the writer.—Mrs. H. M. Pierce, Huron.

WHIP-POOR-WILL NEAR HILL CITY

—May 29, 1960, just after dark I heard a Whip-poor-will in the timber across the highway (#385) from the Pine Crest Lodge about 12 miles north of Hill City. I am familiar with the call of the Whip-poor-will along the Missouri River in eastern Nebraska, and the Poor-will call in the Pine Ridge of Nebraska.

This call definitely had the three syllables of the Whip-poor-will, but seemed somewhat lower and "coarser" than the eastern Whip-poor-will. — **Doris Gates, Chadron, Nebr.**

* * * * *

GOLDEN-WINGED WARBLER AT HURON

—May 16, 1960 was clear and sunny. From one of a row of tall American elms bordering our yard on the south came a strange buzz.

It was a different sound from that of any bird I had heard in a long time. But would it stay while I hurried for binocular, or would it be gone, leaving me always to wonder?

It stayed. Flitting about, the bird was not hard to find, especially since it gave forth its unusual song: a buzz note followed by five in lower pitch.

The jet black throat stood out against the white breast. Closer examination revealed a yellow wing patch and yellow on the forehead.

Mother was with me at the time. We leafed through Peterson's Field Guide and found it to be a Golden-winged Warbler, a bird we had seen many years ago in Wisconsin. This was our first sight of it in South Dakota.—**Mary Aberdeen Kettle.**

CORRECTION

In spite of the efforts of everybody concerned some errors got into Alfred Peterson's Shorebird Table in the last issue, that of March, 1960.

On Page 10, (2) Piping Plover should read, under the years indicated:

| 1954 | 1955 |
|-------|-----------------|
| 5-5,1 | 8-7,4 8-15,5 |

On page 12, (27) Avocet: Strike out the last entry: (10-9,600).

* * *

CEDAR WAXWINGS NESTING AT HURON

—A Cedar Waxwing has been seen to build a nest and start incubation about the first of August in the 1700 block on S. Kansas. The presence of others has been observed, including an individual caught in a mist net and banded July 23, 1960 and again caught at the same point August 6, 1960.

This probably is one of another pair, since the distance from the nest is over a quarter mile.—**J. W. Johnson.**

* * *

Problems of Wildlife

(Continued from Page 29)

there is still another question to ask: Will there be enough areas left for the water to create sloughs and potholes? As drainage is carried out, prospects for the reproduction of wildlife are correspondingly dimmed.

(Presented under the title of "Waterfowl Populations and Management," by the author at the S. D. O. U. Convention at Rapid City, S. D., May 23, 1960)—**General Bendie State Teachers College, Madison.**

S. DAK. CHECK LISTS

A few years ago SDOU published a distributional list of the birds of South Dakota (Bird Notes VIII-1, March 1956) and at the same time had printed a field check list of 300 of the more common species. These field check lists were offered for sale. They are still available to members and others and may be obtained as long as the present supply lasts by sending your check or remittance payable to SDOU, % J. S. Findley, 1201 S. Center Ave., Sioux Falls, S. Dak.

They are printed on 7x11¼ light cards which are foldable to a convenient 2¾x7. The price is 50c a dozen or \$3 a 100, post paid. First come, first served.

* * *

PALM WARBLERS AT SIOUX FALLS—Palm Warblers are generally uncommon during migration at Sioux Falls. Usually I am fortunate to record one or two each spring, although in my records for ten years, there are notable gaps. In fall I have only two or three observations.

Therefore it was a real event when I counted 7 of this species on May 4. Considering their infrequent appearance, this was almost a "wave."

My first observation was on May 3 when I found two in McKennan Park, feeding in maple and hackberry trees, just then beginning to bloom. They often swooped to the ground or out from the tree, apparently hawing insects. The flight seemed to be much like a Chipping Sparrow's, even to the deep undulation in coming in for a landing, as the Chippy sometimes does. The song was a weak unsteadily wavering trill; not a rapid straight trill on one note like the Chipping Sparrow's song but trills on several notes, at first going up a bit and then down, with considerable variability. The alarm note was a sharp slightly metallic

"Chee-ip," which reminded me strongly of the alarm call of the Canada Warbler. I should add that in spite of its rather weak sound the song still has its element of interest.

On May 4 I saw two in McKennan, probably the same two I'd previously seen, and three in Woodlawn Cemetery. Here one was chasing the other as if two males were engaging in a battle over food territories. On May 5 the "wave" arrived with 5 birds feeding on the ground and in the grass at the bases of trees in McKennan and two in Woodlawn Cemetery. There was song at both places. On the 7th I saw only one in McKennan. The last record was that of the 12th when I found one singing steadily for ten minutes in Woodlawn.

Perhaps this warbler with its striking tail-bobbing habit migrates more often than we realize through eastern South Dakota, although my own records bear out the observations of Stephens, Youngworth and Felton. (1955. "Birds of Union County," Neb. Ornith. Union OCC. PAPERS 1:28) who consider it "a rather uncommon migrant most years."—Herbert Krause, Dept. of English, Augustana College, Sioux Falls.

* * *

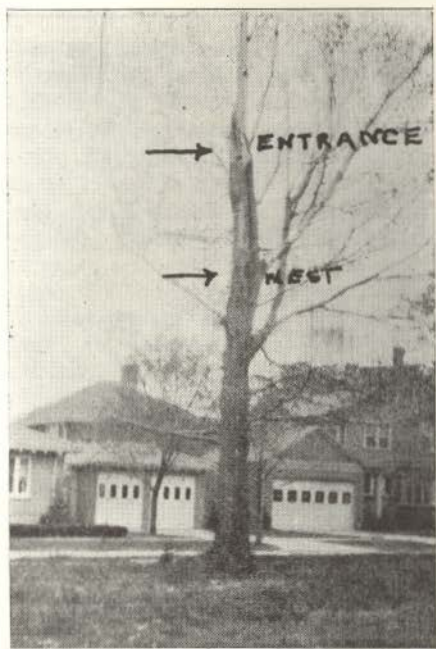
CARDINAL AT HURON—The first Cardinal known in this area for several years appeared in our yard the morning of August 6, 1960. I had heard its "Cheep" note for several minutes before realizing this was something familiar but unusual.

Hurrying to the window I found the bird on a wire less than 30 feet away. The beak, the crest, the shape, and attitude were unmistakable.

Outlined against the sky, the color was not surely made out before the bird flew away and so the sex is in doubt.

Prior to 1952 this species was common here and we had a pair regularly at our feeder for some years.—J. W. Johnson.

Urban Sparrow Hawks



Home

A new door, cut for convenience of observer and photographer reveals the youngsters.



At Home

—Courtesy Wilson Bulletin

Everyone likes to read the short items; but they are the hardest to get—because people are shy about seeing their words in print, perhaps.

For their consolation, editors, like doctors, see some terrible things and think nothing of it. All is strictly business and we patch up everything usable the best we can—in some way—and no-

body ever knows. Nobody here but us chickens.

So get the stuff in to us. We are happy with anything we can read or get translated. We can type it up, spell the long words—with the help of a dictionary, of course, get some help making the verbs behave—but only the one who saw the bird can tell the story.

The 1960 Convention

Blanche Martin

THE South Dakota Ornithologists' Union annual meeting was held at Rapid City May 28, 29 and 30. It began with Dr. and Mrs. N. R. Whitney's informal reception Friday evening which proved to be an excellent way for the S.D.O.U. members to get acquainted. Attendance exceeded expectations, but the Whitney's and their co-hosts were equal to the occasion and deserve congratulations and thanks for a very successful evening.

Saturday morning found most S.D.O.U. members out early for a preliminary check on local birds with several Rapid City members available to indicate the most likely spots. Our Huron group felt lucky to see the western tanager, black headed grosbeak, violet-green swallow and Bullock's oriole, among others.

Coffee and rolls awaited us at the Chuck Wagon on our return and Dr. Whitney, our president, finally gathered everyone together by 10:30 for a welcome by Mr. Isaac Chase, President of the Rapid City Council. Three most interesting talks on the Black Hills area, gave us a good background for the later field trips: "Vegetation of the Black Hills" by Mr. Richard Hurd, Director, Rocky Mt. Forest & Range Experiment Station, Rapid City. which was illustrated by slides; "Upland Gamebird Management in the Black Hills" by Mr. Ray Hart, Research Biologist, S. Dak. Dept. of Game, Fish and Parks, Rapid City; and an entertaining and informative talk on Reptiles of Western South Dakota by Mr. Earl Chace, Curator, Black Hills Reptile Garden, who made his live specimens seem so harmless that hardly a murmur came from his audience when he clim-

axed his talk by dumping a live rattle snake onto the floor at their feet.

The afternoon session proved long but rewarding. Guest speaker, Joseph Taylor of Bausch and Lomb Co., Rochester, N. Y., showed slides of Hawk Mt. Sanctuary; Mr. Robert Weber, General Beadle State Teachers College, Madison, S. Dak., presented a paper on "Waterfowl Populations and Management" with mention of the need to curtail drainage of sloughs. Mr. Frank Sylvester, Supt. Badlands National Monument, Interior, S. Dak., with the use of slides, presented the problems of the increasing use of motor boats on Yellowstone Lake, Wyoming and the resulting loss of birdlife. He explained the U. S. Park Services program to bar motorboats on the south three fingers of the lake in order to provide a place for canoes and wildlife. Later at the business meeting the group voted to support the Park Service in this program. The last talk on the afternoon program was by Dr. Whitney who presented the results of his study of the white-winged junco which is typically a Black Hills bird.

The business meeting also brought forth the following decisions: To appoint a committee to meet with the Fish, Game and Parks Commission to discuss protection of predators and to represent the organization should bills regarding wildlife be presented in the S. Dak. Legislature. The committee was given authority to decide if the S.D.O.U. should take out membership in the S. Dak. Wildlife Federation.

Proceeds from sale of stationery amounting to \$100 was earmarked for a new index to Bird Notes. Clara Yarger, Ruth Habager, Lowry Elliott, J.

**BIRD SPECIES OBSERVED ON FIELD TRIPS ON MAY 28, 29, and 30, 1960,
by members of South Dakota Ornithologists' Union**

This list includes most of the regular breeding species of the Black Hills and a few, such as Upland Plover and Lark Bunting of the prairies just east of the foothills.

| | | |
|---------------------------------------|-------------------------|------------------------|
| Western Grebe | Violet-green Swallow | MacGillivray's Warbler |
| Mallard | Barn Swallow | Yellow-throat |
| Blue-winged Teal | Gray Jay | Yellow-breasted Chat |
| Turkey Vulture | Blue Jay | American Redstart |
| Sharp-shinned Hawk | Magpie | House Sparrow |
| Red-tailed Hawk | Crow | Western Meadowlark |
| Marsh Hawk | Pinyon Jay | Redwinged Blackbird |
| Sparrow Hawk | Black-capped Chickadee | Orchard Oriole |
| Wild Turkey | White-breasted Nuthatch | Baltimore Oriole |
| Killdeer | Red-breasted Nuthatch | Bullock's Oriole |
| Upland Plover | Brown Creeper | Brewer's Blackbird |
| Spotted Sandpiper | Dipper | Common Grackle |
| Mourning Dove | House Wren | Brown-headed Cowbird |
| Nighthawk | Canyon Wren | Western Tanager |
| White-throated Swift | Rock Wren | Black-headed Grosbeak |
| Belted Kingfisher | Brown Thrasher | Lazuli Bunting |
| Red-Shafted Flicker | Robin | Evening Grosbeak |
| Red-headed Woodpecker | Swainson's Thrush | Cassin's Finch |
| Lewis's Woodpecker | Mountain Bluebird | Pine Siskin |
| Yellow-bellied Sapsucker | Townsend's Solitaire | American Goldfinch |
| Hairy Woodpecker | Ruby-crowned Kinglet | Red Crossbill |
| Downy Woodpecker | Loggerhead Shrike | Rufous-sided Towhee |
| Black-backed Three-toed Woodpecker | Starling | Lark Bunting |
| Eastern Kingbird | Solitary Vireo | Vesper Sparrow |
| Western Kingbird | Red-eyed Vireo | Lark Sparrow |
| Say's Phoebe | Warbling Vireo | White-winged Junco |
| Western Flycatcher | Yellow Warbler | Chipping Sparrow |
| Western Wood Pewee | Myrtle Warbler | Clay-colored Sparrow |
| Horned Lark | Audubon's Warbler | Song Sparrow |
| | Ovenbird | |

W. Johnson and Alfred Peterson were elected directors and at the Directors meeting later, the following officers were elected: Ruth Habeger, president; C. A. Hughlett, vice president; L. J. Moriarty, secretary-treasurer.

The day ended with a dinner meeting. Dr. Whitney reported 62 registrations, with 7 states and 19 cities represented. Next year the meeting will be held at Watertown.

Mr. Joseph Taylor of the Bausch and Lomb Optical Co., Rochester, N. Y. gave an illustrated talk on Birds of the Southwestern United States and on the

unusual nesting habits of some ducks.

Sunday was set aside for field trips led by Rapid City members. There was a choice of three trips: 1. By car to Sylvan Lake and a three hour hike along Harney Peak trail. 2. By car to Spring Creek, Battle Creek, Horse Thief Lake, and Sheridan Lake. 3. A shorter car caravan trip through South Canyon and Box Elder Creek Canyon to Pactola Lake. Lunch was served at Moose Camp Lodge, at which time a joint check list of birds was compiled. Then the group split up again, many

(Continued on Page 41)

Education Of A Bird-Watcher

J. S. Findley

—The editor has suggested that I compare birding in South Dakota with birding in Arizona, but, while the techniques may be similar, the species are so different that the Dakotan has to start over in Arizona and learn them one by one. There are a few, like the wintering Mourning Doves, that seem like old friends, but if one finds a flock of wintering Lark Buntings he is in for a bad time until he recalls that they are in winter plumage and so look entirely different from the summer males that are common in the western half of our state.

Some of the Arizona birds with their unusual names, like *Pyrrhuloxia* and *Phainopepla*, are not so uncommon as their names and soon become friends of the bird watcher, and interesting ones. But a few like Audubon's *Cacara* and Xantus's *Beccard* are quite uncommon and the bird watcher is happy when he is able to add them to his life-list.

I was quite interested in some common birds of Arizona that taught me something about Dakota Juncos.

In the Black Hills we have White-winged Juncos (*Junco aikeni*) and here in the East-River the common junco is the Slate-colored (*J. hyemalis*). There are a few others over the state that are usually identified as Oregon Juncos (*J. oregonus*), or perhaps as Montana Juncos (*J. o. montanus*).

Hyemalis seldom goes as far south as southern Arizona but there are several other species down there: *oregonus*, Pink-sided (*J. mearnsi*), Gray-headed (*J. caniceps*), Red-backed (*J. phaeonotus*), and Arizona Junco (*J. p. palli-*

atus). It seemed easier to me to sort out these Arizona species than it is to sort *oregonus* from *hyemalis* in South Dakota.

It has seemed to me that few of our *oregonus* have the reddish back sharply marked off from the black head, as they are described; but we are inclined to explain this away by calling them the subspecies *montanus*. However, Peterson says in regard to the subspecies, "No apparent field difference", and so then we guess they are hybrids.

In Arizona there were many *oregonus* with their black heads sharply marked off from distinctly reddish backs and with rusty pink sides. Also there were *caniceps* with gray heads and sides and rufous backs; and *mearnsi* with gray heads and brown backs.

Peterson lists two subspecies of the Red-backed Junco (*J. phaeonotus*), *J. p. dorsalis* and *J. p. palliatus*. *Palliatus* has been called the Arizona Junco although I believe this common name has been changed to Mexican Junco. These two subspecies are very similar except that *palliatus* has yellow eyes instead of the dark eyes of the other juncos. These yellow eyes make the bird distinguishable in the field and are so striking they seemed to me to indicate a separate species until a bird bander told me of a family he had found with both black and yellow eyed individuals.

I now hesitate more than ever to identify *oregonus* and *montanus* and to separate them from *hyemalis*, even though they don't all look alike. I am relieved to play it safe and to go along with Peterson's admonition to "Just call them juncos."—Sioux Falls

White-winged Juncos

(Continued from Page 25)

30, and, although we each had several retraps of our own birds, neither trapped any that the other had banded.

The White-winged Junco can be recognized as a sparrow-sized bird, pearl gray in color, with a tail which is white on each lateral third and gray only on the central third. The white in the tail, and at close range the white wing bars, are the best field marks for distinguishing it from the Slate-colored Junco which visits the Black Hills in winter. The other wintering junco that may occur in flocks with the White-wing is the Oregon which can be identified by its brownish back and sides.

Although because of the publishing deadline I have sent my manuscript to the Smithsonian Institution, I have not ended my studies of the life history of the White-winged Junco. As I mentioned above, I plan to determine the incubation period more exactly when I find nests close enough to home that I can observe them several times each day, and can watch the nest through its hours of egg-hatching.

I also want to know whether the birds that migrate south to Colorado breed in different areas from those that merely fly to the foothills. In many ways, the White-winged Junco is an ideal species for life-history studies, and the possibilities for further research are endless.

I will appreciate contributions of information from residents and visitors in the Black Hills. Especially I want to know about the locations, dates, and contents of nests, and want to see them if possible.

Also please be sure to report any banded birds to the Fish and Wildlife Service, since I have banded many nestlings and adults, and want to know where they are found. Send any in-

formation on White-winged Juncos to me or to the editor of South Dakota Bird Notes.

In conclusion, I want to assure SDOU members that such a study as this, an investigation of the life history of a familiar bird species, is a fascinating phase of bird study.—**Rapid City**

* Presented by the author at the S. D. O. U. Convention at Rapid City May 23, 1960.

* * *

Birds' Nests

(Continued from Page 33)

cloth, I believe, because not so often found near habitations.

The eggs are like the former with the exception of probably a little smaller blotching of a slightly darker shade. However there being variations in marking of both it would be hard to be sure of identification from the eggs alone. In defense of territory, nest and feeding of young little difference between the two can be seen. Both species appear to be plentiful throughout most of the State in general, except possibly in the higher Black Hills or some of the most barren parts West of the Missouri.

As yet I have never seen either of our Kingbirds parasitized by the Cowbird.—**Watertown**

* * *

Convention

(Continued from Page 37)

of them going into McVey Burn to see the Lewis' Woodpecker, a first for many life lists.

Monday saw several persevering members in the Jewel Cave area with Dennis Carter, former Ranger-Naturalist of that area, to act as leader, while others started home, undoubtedly bird watching along the way.

All in all, it was a successful and satisfying meeting and heartfelt thanks and congratulations go out to our Rapid City hosts.—**Huron**

Members of SDOU, 1960

| | |
|----------------------------|--|
| Abbot, Howard C. | Sun Cove Route 4, Box 207, Sioux Falls |
| Ames, Mrs. O. H. | Clark |
| Augustana College Library | Sioux Falls |
| Avent, Carrie | Minter City, Miss. |
| Bachmann, Gertrude | 3304 Cottonwood Drive, Rapid City |
| Badger, Lester R. | Rt. 1, Excelsior, Minn. |
| Barber, Mrs. Fern | Box 447, Pierre |
| Barrett, J. P. | 921 East Central Ave., Ponca City, Okla. |
| Battin, Blanche | Apt. 23, 546 Dakota S., Huron |
| Baughman, Allen | Box 210, Gillette, Wyoming |
| Baughman, Mrs. D. S. | Box 665, Madison |
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| Behrens, Harry C. | Box 1055, Rapid City |
| Benham, Carrie A. | 318 E. 4th St., Mitchell |
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| Bonham, Mrs. Arthur | Britton |
| Boyce, Dr. R. A. | 628½ 6th St., Rapid City |
| Breen, Holly | Hurley |
| Breen, Robert | Hurley |
| Brookings Carnegie Library | Brookings |
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| Burgi, Mrs. M. E. | Springfield |
| Butz, Jane A. | 345 Harney, Custer |
| Carlson, Mrs. Herman | Britton |
| Carter, Dennis L. | Wildlife Research Lab., Denver 25, Colo. |
| Chapman, H. F. | 712 S. Dakota Ave., Sioux Falls |
| Chapman, Mrs. H. F. | 712 S. Dakota Ave., Sioux Falls |
| Chase, Isaac H. | 911 St. Andrews, Box 272, Rapid City |
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| Crutchett, Mrs. Chas. P. | Armour |
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| Dafnis, Mrs. William | 719 So. 10th St., Aberdeen |
| Deitz, Mrs. Lillie | Groton |
| Drake, Miss Lois | 502 N. E. 6th, Madison |
| Drissen, Mrs. Edward | 802 7th St., Britton |
| Duffner, F. A. | Box 216, Watertown |
| Dumont, Phillip A. | 4114 Fessenden St. N. W., Washington 16, D. C. |
| Eastman, Whitney | 7000 Valley View Rd., Minneapolis, Minn. |
| Elliott, Lowry | Milbank |
| Felton, W. R. Jr. | McCook Lake, Jefferson |
| Fiksdal, J. R. | Webster |
| Findley, J. S. | 1201 So. Center Ave., Sioux Falls |
| Findley, Mrs. J. S. | 1201 So. Center Ave., Sioux Falls |
| Fiscus, Clifford H. | 2108 Silver St., Tucson, Arizona |
| Flett, A. Louise | 506 So. 1st St., Milbank |
| Fox, Adrian | Box 521, Benjamin Franklin Sta., Washington 4, D. C. |
| Frank, Howard C. | 505 No. Cedar, Luverne, Minn. |
| Freeman, Tom | 1010 No. Main, Mitchell |
| Froiland, Dr. S. G. | 1910 So. Duluth Ave., Sioux Falls |
| Gammel, Mrs. R. T. | Kenmare, North Dakota |
| Gates, Doris B. | Chadron Teachers College, Chadron, Nebr. |

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| Halbritter, Mrs. Wesley | 112 West 42nd, Sioux Falls |
| Hall, Willis | 1111 Douglas Ave., Yankton |
| Harper, Dr. E. W. | 6½ S. Broadway, Watertown |
| Harrel, Dr. Byron E. | Zoology, Univ. of S. D., Vermillion |
| Harris, Bruce K. | 912 W. Alvarado, Carlsbad, New Mexico |
| Hempel, David | 59 E. 3rd Ave., Webster |
| Holden, Dr. David J. | 804 13th Ave., Brookings |
| Holden, Mrs. David | 804 13th Ave., Brookings |
| Hughlett, Charles A. | LaCreek Refuge, Martin |
| Hurd, Richard M. | 2408 Arrow St., Rapid City |
| Huron Public Library | Huron |
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| Jenni, Donald A. | c/o Iver Hovland, Ortle |
| Johnson, Agnes | Stockholm |
| Johnson, Carl M. | 1500 7th St. N. E., Rochester, Minn. |
| Johnson, J. W. | 1421 Utah Ave. SE, Huron |
| Johnson, J. O. | 112 7th St. S. E., Watertown |
| Johnson, Mrs. J. O. | 112 7th St. S. E., Watertown |
| Judy, Addie B. | Forestburg |
| Kaufman, Katherine | Freeman |
| Keeler, Charles E. | 2100 S. Willow, Sioux Falls |
| Ketelle, Miss Mary Aberdeen | 930 Ohio SW, Huron |
| Kingsbury, Archie S. | 4218 West Chicago, Rapid City |
| Kranz, Esther | 408½ S. Maple St., Watertown |
| Krause, Herbert | 1811 S. First Ave., Sioux Falls |
| Krause, Bill | Pickstown |
| Krum, Kenneth | Squaw Creek Refuge, Mound City, Mo. |
| Langager, Ludwig | 421 East 10th Ave., Webster |
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| Lueshen, Mrs. John | Wisner, Nebr. |
| Lundquist, Arthur R. | Webster |
| Martinson, Norman | Webster |
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| McFarland, Mrs. Frank | Flandreau |
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| Mudey, Dr. Robert | 1017 So. Washington St., Aberdeen |
| Myers, Earl H. | Armour |
| Nash, Charles A. | Platte |
| Nelson, Mrs. Joseph | 1100 East 6th St., Sioux Falls |
| North Dakota State Agricultural College Library | Fargo, N. Dak. |
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| O'Banion, Mrs. H. W. | Canton |
| O'Leary, Mary Pat | 6226 20th Ave., West Hyattsville, Md. |
| Palmer, John J. | Interior |
| Pay, Clifford T. | 120½ S. Phillips Ave., Sioux Falls |
| Peeke, Dr. A. P. | Volga |

| | |
|--------------------------------|--|
| Peterson, Alfred | Brandt |
| Pettingill, O. S., Jr. | Wayne, Maine |
| Peterson, Peter | 620 E. 30th St., Davenport, Iowa |
| Pierce, Mrs. H. M. | Box 1203, Huron |
| Pinkert, Elroy | Big Stone City |
| Randall, Robert | 928 16th St., Bismarck, N. Dak. |
| Rapid City Free Public Library | Rapid City |
| Rapp, William F., Jr. | 430 Ivy Ave., Crete, Nebr. |
| Richard, Alice | 144 8th St., Watertown |
| Riss, Eleanor G. | Big Stone |
| Rogge, Charles H. | 2012 South Grange Ave., Sioux Falls |
| Rose, W. A. | Clear Lake |
| Ryan, Mrs. John | Canyon Lake Ht., Rapid City |
| Schwandt, Randall L. | Rt. 1, Milbank |
| Sewell, E. A. | Box 597, Webster |
| Shaw, F. B. | Rt. 1, Brookings |
| Shepersky, A. D. | 918 Illinois St., S. W., Huron |
| Shindelbower, Moses | Pine Ridge |
| Shindelbower, Mrs. Moses | Pine Ridge |
| Siljenberg, Adelene | 22 So. Pine St., Vermillion |
| Sioux Falls Carnegie Library | Sioux Falls |
| Smith, H. Elva | Alpena |
| Smith, Kimberly | Hurley |
| South Dakota State College | Brookings |
| Spawn, Dr. Gerald B. | 1101 Second St., Brookings |
| Stevens, Mrs. H. B. | Box 339, Hot Springs |
| Taylor, Joseph M. | c/o Bausch & Lomb Optical Co., Rochester, 2, N. Y. |
| University of British Columbia | Vancouver, B. C., Canada |
| University of Minnesota | Minneapolis 14, Minn. |
| University of South Dakota | Vermillion |
| Vanderbush, Dr. L. I. | Clear Lake |
| Vanderstein, Mrs. George | 1225 Kansas SE, Huron |
| Van Heuvelen, Dick | Deadwood |
| Van Heuvelen, Dr. Virgil B. | Deadwood |
| Visser, Dr. S. S. | Indiana University, Bloomington, Ind. |
| Wagar, Rev. Harold W. | 1206 3rd St., Sturgis |
| Walker, Alex | Tillamook Pioneer Museum, Tillamook, Oregon |
| Walkinshaw, Dr. Lawrence H. | 703 Wolverine Federal Tower, Battle Creek, Mich. |
| Washburn, Hattie | Goodwin |
| Watertown Carnegie Library | Watertown |
| Watters, Earl W. | Mellette |
| Whitmus, Harold V. | 5800 Saylor St., Lincoln 6, Nebr. |
| Whitney, Dr. Nathaniel R. Jr. | Rt. 1, Box 41, Rapid City |
| Whitney, Dr. W. A. | 438 Pierre St., Pierre |
| Williamson, Ellen | 112 Arch St., Aberdeen |
| Winter, Bertha C. | 1004 E. St., Lincoln, Nebr. |
| Wipf, Mrs. John | Freeman |
| Woodward, Mary C. | Hot Springs |
| Yale University | New Haven, Conn. |
| Yankton College | Yankton |
| Yarger, Mrs. Clara P. | 2742 W. St. Anne, Rapid City |
| Youngworth, Wm. | 319 2nd St., Sioux City 5, Iowa |