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Whole No. 94



Short-eared Owl

—Photo by Roger R. Kerbs

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President's Page

I AM writing this shortly after receiving the preliminary program for our next S.D.O.U. meeting. Our friends at Brookings have prepared an interesting paper session. Earlier I mentioned that these meetings are valued by those that attend; however, the same amount of work can also serve a larger attendance. On these pages I've brought up a number of ideas, and I hope at this meeting to get a little "feedback." The officers and the editors are scattered over a wide



territory, and between meetings any one of us probably see less than 10 percent of the membership. We appreciate seeing the members and hearing of their concern and ideas. We are a voluntary organization whose existence really is its membership. Our meetings are times to renew and promote our working together.

I would also like to comment on another subject in this column. Ornithology is perhaps the science that has the largest percentage of amateur practitioners. This is so for a number of reasons, one being the numerous good books that are written in a language that does not require specialized background. The interested person in his spare time can educate himself to a significant level of competency at least in part of the field. The amateur can have the pleasure inherent in a hobby or sport but also can have the pleasure of making an addition to the body of science. Reading and study of pertinent books are not alone sufficient in order to make a scientific contribution. Of equal importance is an attitude of carefulness

and accuracy and also one of careful objectivity.

Many ornithological observations occur when a person is off by himself and what he sees may be missed by others or may happen so quickly that others present may still not see them. The necessity for carefulness is obvious in these circumstances. Accurate recording and reporting of the observations can hardly be overstressed. These are not necessarily second nature to good, honest individuals; they are attitudes that must be developed and to be constantly strived for. I would like especially to stress here the development of the quality of being objective in one's observations. We have probably all had fun on a good day seeing how many kinds of birds we could locate. In our spring or summer meetings we may all enjoy reporting the find of a species that no one else has found. Such good natured competition may contribute by encouraging effort in covering the countryside. When the level of enthusiasm surpasses the objectivity of the observer, we have trouble. A person may honestly believe that he saw some characteristic that he actually did not. The desire to see something may overcome one's visual system. I recall some beginning students of mine examining a mislabeled Cedar Waxwing almost convincing themselves that the almost white undertail coverts were red! The editor's job becomes very difficult when the challenge of an observation is regarded as an attack upon the observer's integrity. I know of no easy answer to this type of situation. Ornithological knowledge can benefit from the work of the many enthusiastic amateurs, but if much of it is not of high quality, all of it may be rejected.—Byron E. Harrell

South Dakota Nesting Season

June 1 through August 15, 1972

Compiled by Esther Serr

REPORTERS

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Irma Weyler, "The Daily Post," Belle Fourche, Butte Co. IW.

Nelda and David Holden, Brookings, Brookings Co. NH.

Harold A. Kantrud, Northern Prairie Wildlife Research Center, Jamestown, N. Dak., Roscoe, Edmunds Co., HAK.

BREEDING BIRD SURVEYS

1. 6-27—East of Ottumwa to east of Phillip, Haakon Co. BJR.

2. 7-24—Promise Day School through White Horse along Moreau River, Dewey Co. BJR.

3.—East of Laplant to Parade, Dewey Co. BJR.

4. 6-25—Jackson Co. south of Cottonwood to Cactus Flats, NRW.

5. 6-28—Roubaix Lake, Highway 385, Rimrock Highway, Black Hills, Pennington Co. NRW.

6. 6-26—White Lake, Interstate 90, south to Aurora Center, Aurora Co. WH.

7. Volga, Brookings Co., south into Moody Co. NH.

8. Howard, Miner and Lake Cos. NH.

9. Roswell, Miner and Lake Cos. NH.

GEOGRAPHICAL REFERENCES

SDOU Spring meeting, Mobridge, 6-3 and 6-4 covering Corson, Dewey, Campbell and Walworth Counties—mainly nesting activity used from personal records.

Hiddenwood State Park, Walworth Co. Lake Molstad, Walworth Co.

Sand Lake, Campbell Co.

Lake Pocasse, Campbell Co.

Roubaix Lake, Black Hills, Lawrence Co.

Seavey's Lake, Meade Co.

Lake Marindahl, Mission Hill, Yankton Co.

Lake Mitchell, Hyde Co.

Lacreek NWR, Bennett Co.

Oahe Reservoir and Dam, Missouri River, Pierre, S. Dak.

Lewis and Clark Lake (L & C) and Gavin's Point Dam, Yankton and Bon Homme Counties.

Lake Sharp, Missouri River.

Rosebud Indian Reservation, Todd Co.

Rapid Canyon and Dark Canyon, Canyon Lake in floodplain of Rapid Creek, Rapid City.

MISCELLANEOUS

Tom Hays, Black Hills State College and Gillette, Wyoming, received a five month's banding permit, July, 1972, to be used under the direction of N. R. Whitney.

WEATHER

The entire state was wet and cold—exceptionally so. Water levels were higher so that some nests were destroyed and areas so soggy they couldn't be traveled.

A flood, caused by 10 to 12 inches of rain some 10 miles west of Rapid City, was most devastating to human life and property. The same must have been true for the birds and their nests since it was the peak of the nesting season. All brush in a floodplain of some 3,000 acres through the center of the city was torn out by water or bulldozers. Canyon Lake Dam broke from much debris piled against it. Mallards nested below this dam, but many ducks of all sizes were being fed by residents after the flood. Red-winged Blackbirds had to have suffered much loss. Many trees fell, and higher nests in trees could have been torn out by debris. Chipping Sparrows generally nest low in conifers. The force and amount of rain could easily have washed down the eggs of the Common Nighthawk off the hilly rock beds. The White-winged Junco nesting at higher altitude under overhangs must have been flooded. Observers, who live above the floodplain, noted many more birds after the flood—both adult and young.

Nest records for seven years show 100 nesting species mainly in western South Dakota. Others are known to nest but no nests found—just the fledglings appear. It can be assumed there was much loss to birdlife.

SEPTEMBER, 1972

—SPECIES—

LOONS, GREBES, PELICANS, CORMORANTS, HERONS

Common Loon—7-18, 7-22 (1) immature plumage above Oahe Dam BJR.

Red-necked Grebe—7-4 (1) apparently nesting—nest destroyed by wind by 7-10—not able to check nest, Deuel BKH.

Horned Grebe—Present Waubay NWR.

Eared Grebe—6-1 (2 pair) Garden City, Clark Co. BKH; 6-18 through 7-13 (18) one habitat, Hyde Co. JH; Waubay; 6-3 (4) Sand Lake, in courtship NRW; 100 young produced, Lacreek CAF; 30 nests, 7-12 (75 to 100 young) on 100 acre pond, Roscoe, Edmunds Co. HAK.

Western Grebe—6-18 (1) Hyde Co.; Waubay; 6-3 (25 plus) courting, nests in reeds—water too deep to reach nests with waders, Sand Lake BKH; 6-25 (11) Lacreek RCR; 7-4 (50 pair) Round Lake, lesser numbers at School, Alice, Coteau, Fish and Fox Lakes, Deuel BKH.

Pied-billed Grebe—6-18 (1) Hyde Co.; 6-15 through 6-27 (4) broods of 22 young, Waubay; 100 young, Lacreek, CAF.

White Pelican—6-18 (1) Hyde Co.; 6-25 (400) Lacreek RCR; 838 produced, ground check of colony, Lacreek, CAF.

SWANS, GEESE AND DUCKS

(All duck production based on pair counts conducted in late May and brood counts conducted in late July. Timing of the hatch coordinated by brood chronology counts. Lacreek NRW (CAF).

(Heavy rains in April and May delayed farming operations that resulted in unusually high nest success among species nesting in small grain stubble fields, Roscoe, Edmunds Co. HAK.)

Trumpeter Swan—6-25 (5) Lacreek RCR; 8 young out of 3 broods on refuge, 20 young off refuge, Lacreek CAF.

Greater Canada Goose—6-25 (25) Lacreek RCR; 331 hatched, 250 produced to flight, Lacreek CAF.

Mallard—7-12 nest with 7 eggs under wild spirea on high hill, many nests along

Rapid Creek after break in Canyon Lake Dam NRW; 6-15 (2) nests destroyed, otherwise, good hatch, Perkins AH; 6-27 female with brood of 5 downy young, Stockade Lake, Custer Co. RCR; (48) Roswell route, large increase NH; 1518 produced to flight, Lacreek CAF; 27 nests, first date 5-5, (9) eggs, 14 out of 27 nests hatched, Roscoe HAK.

Gadwell—6-26 (1) Auroura Co.; 7-13 first brood out, total (27) broods with 185 young, Waubay RRJ; Roswell route (1) NH; 1386 produced to flight, Lacreek CAF; 31 nests, first date 6-10 (10) eggs, 17 out of 31 hatched, Roscoe HAK.

Green-winged Teal—6-25 (1) Lacreek RCR; 6-27 (10) downy young, Rosholt, Roberts Co. BKH; 7 nests, first date 6-14 (5) eggs, 5 out of 7 hatched, Roscoe HAK.

Blue-winged Teal—Numerous all over state; 21 on Roswell route NH; 5992 produced to flight, Lacreek, CAF; 71 nests, first date 5-17 (7) eggs, 49 out of 71 hatched, Roscoe, HAK.

Cinnamon Teal—5-26 (1) male, 20 miles north of Roscoe HAK.

American Widgeon—7-17 first brood, total, 4 broods with 24 young, Waubay RRJ; 1 nest, 6-20 (8) eggs, 5 hatched; 6-12 brood of 8, Roscoe HAK.

Shoveler—17 nests, first date 5-16, 9 out of 17 hatched, Roscoe HAK; 6-21 female with 12 young, Hyde Co.; 7-18 (1) brood of 7 young, Waubay RRJ; 744 produced to flight, Lacreek CAF.

Wood Duck—7-3 (2) juveniles L&C; 8-3 (2 young) Waubay.

Redhead—6-3 (4) Sand Lake; 6-18 (4) pair, one habitat, Hyde Co.; 6-25 (6) Lacreek RCR; 7-3 (18) broods with 117 young, Waubay RRJ; (8) Roswell route NH) 324 produced to flight, Lacreek CAF; 5 nests, first date 6-14 (11) eggs, hatched on 6-21, 5 nests out of 5 hatched, Roscoe, HAK.

Canvasback—6-3 (3) Campbell Co.; 6-23 (13) broods with 81 young, Waubay; 65 produced to flight, Lacreek CAF; 3 nests, first date 5-5, hatched 6-6, 2 nests out of 3 hatched, Roscoe, HAK.

Ruddy Duck—(6) pair, in one habitat, Hyde Co. JH; 6-4 (50 plus) Sand Lake, courtship display NRW; 6-26 (1) Aurora WH; 7-12 first brood, total, 10 broods with 47 young, Waubay; 108 produced to flight, Lacreek, CAF; 7 nests, first date 7-10 (7) eggs), 6 out of 7 nests, hatched, Roscoe, HAK.

Ring-necked Duck—Broods of 9, 9, and 6 young near Bullhead Lake 7-14. These with last year's data, definitely established species in Deuel Co. BKH.

HAWKS AND EAGLES

Turkey Vulture—6-5 (1) Slim Buttes, Harding Co. WH; 6-10 (33), 6-13 (28) in groups of 5 to 7 but all visible in the sky at once, Spearfish Valley, TH; few around Fairburn, daily BN; 7-2 (2) Perkins AH; 7-23 (4) Spearfish Canyon, RK; 7-21 (1) Tabor, Bon Homme Co. WH.

Sharp-shinned Hawk—Present Waubay and Perkins Co.

Cooper's Hawk—Present Waubay; 8-6 (1) Nameless Cave Road, TH, EMS.

Red-tailed Hawk—6-18 (1) north Hyde Co.; 7-29, 7-30 (1) Elkvale Cemetery, Meade Co., photographed, NRW; 7-21 (1) Lake Merindahl WH; 8-7 south Rapid City BHAS; (3) nests, Deuel, (2) nests, Roberts BKH.

Swainson's Hawk—6-25 (2) Martin, Bennett Co. RCR; present Waubay, Hyde Co., Perkins Co.; 8-7 (5) young recently out of nest, flying fairly well; one caught and banded by Don Adolphson—adult screaming overhead, south Rapid City RES.

Ferruginous Hawk—8-3 (2) Harding Co. DA; 5 nests total, 2 nests found 5-22, Roscoe, Edmunds HAK.

Golden Eagle—6-5 (2) Deerfield, Black Hills CY; 8-3 (1) Harding Co. DA.

Marsh Hawk—Nest in rye stubble, 5-18 (5) eggs, hatched 4 out of 6 eggs by 6-16, on 7-6 (5) half-grown young, Roscoe, Edmunds HAK.

Broad-winged Hawk—6-20 (1) Newton Hills, Lincoln Co., 6-27 (1) Sieche Hollow, Roberts BKH.

Prairie Falcon—6-5 (2) Slim Buttes,

Harding Co. WH.

Sparrow Hawk—Perkins Co.; scarce, Pennington; about 2 daily, Spearfish Valley TH; 7-9 (6) Conata, Pennington Co. EMS; 7-19 through 7-26 (4), 7-28 (5) all close together, Yankton Co. WH.

GROUSE

Sharp-tailed—Present Hyde Co.; 6-15 covey of (5), 7-21 covey of (11) Perkins AH.

Sage—1 covey, Perkins Co.

Bob-white—7-25 (1) Yankton Co. WH; south Pickstown, Charles Mix Co. near Nebraska line, 20 to 25 observed and heard in 4 mile drive BJR.

Ring-necked Pheasant—6-1 (15) young flew up in a field, Perkins Co. AH; 6-4 (1) Milesville, Haakon Co. EMS; 6-1 (12) a week old, 7-3 hen and 7 young, Hyde Co. JH; 6-26 (2) Aurora WH; average, Waubay RRJ; 5 nests, first date 5-5 (1) egg, 5 out of 5 nests hatched, Roscoe, HAK.

Gray Partridge—Good hatch for third consecutive year, Deuel Co. BKH; 1 nest, 6-15 (19) eggs, hatched 17 out of 19 eggs by 6-30, Roscoe, HAK.

CRANES AND RAILS

Virginia Rail—6-13 (1) Campbell Co.; present Waubay, Perkins Co.; 6-27 (1) Ottumwa, Haakon BJR; 2 nests, first date 5-14 (4) eggs, and the other 5-26 with (9) eggs—both hatched. "One of these nests was in dry uplands 50 yds. from water in sweet clover and brome, Roscoe, Edmunds Co. HAK.

Sora—Present, Waubay; 6-27 (1) Ottumwa, Haakon Co. BJR; 6-6 (2) birds dead—caught on fence, Potter Co., "I have found barbed wire fences a regular hazard for rails and coots," BKH; (6) Roswell route, (2) Howard route, (7) Volga route, none in 1971 and (1) Volga route, 1970—"Many more than in past years." NH.

American Coot—6-18 (5) half-grown, 7-13 young of all sizes, Hyde Co.; 6-4 many nests, Campbell Co.; 6-4 nest, Sand Lake with 15 eggs NRW; 7-24 (6) Curlew Lake, Meade Co. EMS.

Double-crested Cormorant—Nesting with Great Blue Herons, Lake Sharpe, Chamberlain, Brule Co. JH; 6-25 (100) Lacreek RCR; 6-3 Lake Oahe, nesting with Great Blue Herons, total of 160 nests—96 Cormorants on nests and 26 Herons; 6-28 (7 nests) Lake Sutton, Deuel, 6-30 (48 nests) Bullhead Lake, Roberts BKH; 8-5 (36; L & C (WH); present Waubay; regular in Hyde Co. all period; 6-3 (10) Sand Lake, sunning in tree EMS; 175 young, ground check of colony, Lacreek, CAF.

Great Blue Heron—Colony, Lake Sharpe, Brule Co., JH; 7-5 thru 7-26, L. Marindahl SH; (5) Seymour Dam, south Perkins Co. AH; 6-5 (2) Deerfield, Black Hills, 7-9 colony, Cottonwood Creek, Quinn (15 young and 6 adults at nesting tree), many singles at small dams in Pennington Co. BHAS; 7-2 (1) lower Spearfish Canyon, Black Hills RCR; 4 nests, 1 egg, no young—first nesting record, Lacreek, CAF.

Green Heron—7-3 (1) L&C, 7-5 (1), 7-7 (1), 7-26 (2) L. Marindahl WH.

Cattle Egret—(1 pair) L. Mitchell, male in breeding plumage JH; (1) Cresbard in June HWW.

Black-crowned Night Heron—Few Brookings Co. NH; 6-3 (3) Campbell Co.; 6-18 (5) one habitat, reduced in number, Hyde Co.; 6-26 (8) Aurora Co. WH; 6-25 (8) Lacreek RCR; 300 young, boat survey, Lacreek CAF; 7-8 nest with (2) one week old young, Roscoe, Edmunds HAK.

American Bittern—Absent, Perkins Co. AH; present Hyde Co.; 6-3 (2) Campbell Co. NRW; 6-7 nest with 5 eggs, success unknown, Waubay; 6-26 (5) Aurora Co. WH; 6-19 (1) nest with 4 eggs, hatched by 7-14; 6-22 (1) nest with 3 eggs, 7-24 (4) young in this nest, Roscoe, Edmunds HAK.

Least Bittern—6-30 (1) Bullhead L., Roberts Co. BKH.

CORVIDAE

Blue Jay—Few daily, Rapid City and Yankton, 6-30 (10) Yankton; 6-24 (4) Rosebud, 6-29 (1) Custer State Park Zoo, RCR.

Black-billed Magpie—6-28 (24) Rimrock Highway, Penn. Co.—15 in one flock NRW; 7 nests found, population increasing, Lacreek CAF.

Common Crow—(5) every day, Spearfish Valley TH; 6-28 (12) Roubaix to Highway 385 NRW; 6-1 Corson Co. nest with 4 young, WH.

Pinon Jay—Good-sized flock comes into a Canyon Lake area feeder every day, 40 to 50; Whitney has banded many at his home during period.

CHICKADEES, NUTHATCHES,

CREEPER, DIPPER AND WREN

Black-capped Chickadee—6-3 (2) with food, Dewey Co. BKH; present Perkins Co., Waubay; 7-15, 7-19 (1) Yankton Co.; few around during period, BHAS.

White-breasted Nuthatch—6-20 (2) nests with young, Lincoln Co. BKH; 8-4 (2) Rapid City; present, Waubay.

Red-breasted Nuthatch—6-28 (3) Roubaix NRW.

Brown Creeper—June (1) Farm Island, Pierre, BKH; 6-29, 6-30 (2) Sylvan Lake, Black Hills RCR.

Dipper—6-6 (6) Spearfish Canyon, 15 minute ride, and one nest TH; 6-7 (2) Rough-lock Falls, one carrying food WH.

House Wren—13 nests, Hyde Co., (5) of these re-nested JH; (2) nests in a boot on porch, successful hatches, Perkins Co. AH; 7-15 (8) juveniles, 7-27 family of 7, Yankton Co. WH; no nests, Rapid City; Volga route, (5) 1970, (6) 1971, (14) 1972 NH.

Long-billed Marsh Wren—6-3 (1) juvenile, 8-5 (2) juveniles, (3) nests—1 dummy—in cattails, Yankton WH; 6-3 (3) Campbell Co.; present, Waubay; Roswell route, (5) 1971, (12) 1972 NH.

Rock Wren—6-25 (10) Badlands NRW.

MIMIDS, THRUSHES, KINGLETS,

PIPITS AND WAXWING

Mockingbird—6-1 (1) Rapid City RK.

Catbird—7-13 nest with 3 eggs, 7-14 nest with 3 eggs, 7-15, (1), 7-26 (2) and nest with 3 juveniles, Yankton Co. WH.

Brown Thrasher—Good hatch, Perkins Co.; 6-13 (1) young recently out of nest,

Hyde Co.; common over state; 6-3 building nest, Molstad L. NRW.

Robin—Up on all surveys NH; good hatch over state; definite increase around Brookings; 8-1 (24) in one flock, Rapid City RK.

Wood Thrush—6-1 through 6-6 (5) nests located in Gregory Co. along Missouri River, one nest and adult taken BA; 6-20 singing male near abandoned nest, Lincoln Co. (nest taken); nests along Missouri River were within 1 sq. mile area. Species is evidently fairly common in that area BKH.

Eastern Bluebird—Present Waubay; 6-3 (1) Corson Co.; 6-3 (1 pair) Hiddenwood NRW; present in June, Campbell, Walworth, Corson, Dewey, Hughes, Charles Mix and Gregory Cos. BKH.

Mountain Bluebird—6-5 (1) Slim Buttes, 6-13 (2) Cedar Pass, Badlands WH; 6-30 nest in unfinished basement room—7-12 (4) young able to fly and shooed out of the house, Rapid City EMS.

Townsend's Solitaire—7-12 (1) yard NRW) 6-29 (3) Needles Highway, Black Hills RCR.

Golden-crowned Kinglet—6-30 (1) Needles Highway; 6-30 (2) Spearfish Canyon, Timon Campground, 7-1 (5) same area RCR.

Sprague's Pipit—7-3 LaPlant, Dewey Co. heard several in air, 7-12 (2) singing n. Ft. Pierre, 8-6 (1) singing n. Pierre, BJR.

Cedar Waxwing—6-1 few; 6-6 (1 pair); 8-12 (12) BHAS.

SHOREBIRDS

Piping Plover—Present Waubay; 6-1 (2) nests destroyed several times, rebuilt, finally producing 2 young from 2 pairs, Pierre BJR.

Killdeer—Common over state; 6-26 (19) Aurora Co.; good hatch, Hyde Co.; several hatches, Perkins Co.; 8-17 (18) Stephens Dam, Penn. Co. BHAS.

Long-billed Curlew—Excellent hatch, Penn. Co.; 6-25 (1) Jackson Co.; 6-28 (40) south Rapid City, RES; 7-9 (8 adults, 2

young), Custer Co., (2) coyotes sneaking up after young, but spooked HB; 7-23 (1 adult, 1 young) Curlew Lake EMS; 8-3 (6) Harding Co. DA.

Upland Plover—Good hatch around Rapid City; 6-25 (20) Jackson Co. NRW; 7-9 (4) north Quinn, Penn. Co.; present, Waubay and Hyde Co.; 6-15 nest with 4 eggs, ¼ mile from house, Perkins Co., good hatch AH; 6-26 (13) Aurora Co. WH; 6-24 (1) Rosebud RCR; very few noted from Aberdeen to Mobridge to Pickstown—more in Campbell and Edmunds Cos. BKH; 9 nests, first date 6-13 (4) eggs, 7 of 9 nests hatched, Roscoe, Edmunds Co. HAK.

Spotted Sandpiper—6-3 (3 pairs) started nests that were destroyed, rebuilt and raise 5 from 3 pairs, Pierre BJR; 6-4 nest with 4 eggs on small island 4 ft. from water and 3" from base of cottonwood sapling w. Walworth Co. WH; 7-1 (1), 7-13 (2), 7-14 (1) Yankton Co. WH.

Willet—6-3 (3) Dewey; 6-3 (2) probably nesting, Campbell Co. NRW; 8-2 (2) s. Rapid City BHAS; few in Campbell, Dewey and Sully Cos. in early June in 13 county trip BKH; 1 nest, 5-4 (2) eggs, hatched 4 eggs by 6-5, Roscoe HAK.

Greater Yellow Legs—7-18 (8) Pierre BJR.

Lesser Yellow Legs—7-18 (8) Pierre BJR.

Marbled Godwit—6-18 and 7-13 (2 pair) one habitat, Hyde Co. JH; 6-3 (12) Campbell Co., dive-bombed car EMS; 6-30 (7) n. Ft. Pierre, 6-14 (1 pair) Ottumwa, Haakon Co., 8-6 (1) Oahe Dam BJR; found in Edmunds, Potter, Walworth Cos. on 13 county trip, 7-4 present Deuel Co. BKH; 2 nests first date 5-17 (4) eggs, hatched by 5-30, the other nest with 4 pipped eggs, 5-16, Roscoe, HAK.

Sanderling—7-18 (11), 7-23 (5) Pierre, BJR.

American Avocet—7-19 (2) Waubay; 6-3 (1) Dewey Co.; 7-5 (2), 7-11 (1) Pierre BJR.

Wilson's Phalarope—6-13 (2) Waubay; 6-26 (4) Aurora down in numbers at

Seavey's Lake, NRW; common in 10 counties, East River BKH; unusually small numbers this year, Roscoe, HAK.

GULLS, DOVES AND CUCKOOS

Herring Gull—8-6 (6) below Oahe Dam BJR.

California Gull—8-6 (4) below Oahe Dam BJR.

Ring-billed Gull—7-19 (1) Yankton Co. WH; 6-3 (16) L. Pocasse NRW; 7-23 (1) Curlew Lake; 7-19 (1) L&C (WH).

Franklin's Gull—Present Waubay, Hyde Co.; 7-1 Perkins Co.; high water may have hindered nesting—none found in Roberts Co. BKH.

Common Tern—Present Waubay; 6-9 (1), 6-11 (1) Pierre BJR.

Forster's Tern—Decreased numbers Hyde Co. (1 pair) JH; 7-19 (1), 8-5 (2) L&C (WH); 7-2 (10 pair) nesting in 20 acre slough (nests not checked), Deuel Co.; 6-30 (8 pair) nesting, Bullhead Lake, Roberts, (1) downy young examined BKH.

Least Tern—6-21 (2), 8-6 (3) Pierre BJR; 7-3 (1) 7-19 (2) L&C (WH).

Black Tern—Decreased numbers Hyde Co. JH; 7-23 (100 plus) Curlew Lake EMS; 6-26 (2) Aurora, 7-19 (1) through 8-5 (2) Yankton Co. WH.

Mourning Dove—Up on all routes, NH; 6-4 (2) half-grown in nest, 6-29 (2) half-grown in Hopa crab, Hyde Co. JH; numerous over state.

Yellow-billed Cuckoo—6-6 (1) Gregory Co. BA; Pierre BJR; 6-9 through 6-20 (1) Rapid City GRB; 6-25 (1) Lacreek RCR; 6-28 (1) singing Hyde Co. JH; 6-6 (1) nest Gregory Co. BA.

Black-billed Cuckoo—Few at Pierre than Yellow-billed BJR; 6-24 (1) Rosebud RCR; 7-5 (1) through 7-14 L. Marindahl, 7-13 (1), 7-21 (1) Yankton Co. WH; present Waubay; 6-2 (1) singing, Hyde Co. JH; (4 pair) all period, Perkins Co. AH.

OWLS

Screech—(1 pair) Highmore, Hyde Co. all period JH; Perkins Co. AH; 6-6 (1) Gregory BA; 6-14 (2 adults, 4 young) Spearfish Valley, young, screaming for

food, could fly from branch to branch and looked like balls of fuzz TH; 7-16 (1) Roberts Co. BKH.

Great Horned—6-26 (1) Aurora; 7-15 (1) Yankton Co. WH; present Hyde Co., Waubay, and Perkins Co.

Long-eared—Nest with 3 eggs in wheat stubble field, Perkins Co. AH.

Short-eared—(2) nests Perkins Co.; 6-4 (1) Milesville, Haakon; 6-25 (1) Jackson Co.; 7-3 (14) probably two or three families, 7-31 (8), 8-7 (1) immature found in hay field, banded by DA, s. Rapid City RES; 6-1 nest with 2 newly hatched young in rye stubble, Roscoe, HAK.

Saw-Whet—7-12 (1) immature in a barn s.w. Rapid City, banded by NRW.

GOATSUCKERS, SWIFTS,

HUMMINGBIRDS AND KINGFISHER

Poorwill—6-24 (1) Rosebud RCR.

Common Nighthawk—6-14 (2) nests, each with 2 eggs, Perkins, AH; fewer than past years, Pennington Co.; 7-6 (1) nest Deuel, GH.

Chimney Swift—6-20 (2), 7-2 (2) Rapid City, EMS; 7-28 (1) through 8-2 (5) flying 400 feet up against a threatening sky, Yankton, WH; nesting Deuel and Roberts Cos. BKH

White-throated Swift—6-14 flying over Dark Canyon, copulating in air; flood waters didn't go high enough in the canyon to reach their nests NRW; 6-5 (8) Slim Buttes, Harding Co., in a high, gusty wind, skimming within inches of the cliff where the Prairie Falcon perched WH.

Belted Kingfisher—7-29 (1) prairie n. Seavey's Lake NRW; 8-31 (1) Camp Crook, Harding Co. (unusual) DA; present all summer, Perkins; 7-5 through 7-26 (1) Marindahl L., 7-27 (1) adult with 3 juveniles, Yankton WH.

WOODPECKERS

Flicker—Good hatch Perkins Co.; occasional singles through period, Rapid City.

Red-headed—7-15 through 7-21 (6) Yankton Co. WH; present all period, Perkins Co.; 6-5 nest with 4 young

Spearfish Valley TH; 7-9 through 8-5 (8) Penn. Co. BHAS; 7-21 (3) young, still present 8-11, Hyde Co. JH.

Yellow-bellied Sapsucker—(3) nests Big Stone Lake, Roberts—4th consecutive year that firmly establishes nesting; 6-20 (1) nest, Newton Hills, Lincoln Co. BKH.

Hairy—7-29 (2) young males, Rapid City DK; 7-15 (1) Yankton WH.

Downy—7-21 through 7-28 (1) immature, Rapid City GRB; 7-3, 7-15, 8-5 (1) each, Yankton WH.

FLYCATCHERS

Eastern Kingbird—Numerous over entire state; 7-5 (4) young off nest, Rapid City EAS; 7-13, 7-27 (2) nests, adult incubating 1 egg in each, 8-3 (8) together, Yankton WH; 7-28 (2 adults, 2 young) Rapid City EMS.

Western Kingbird—Slightly down on all counts NH; 6-26 (5) Aurora; 7-19 through 8-5 (4) singles, Yankton WH; 6-3 nest, Lake Campbell, Campbell Co., NRW; 7-22 (6) probably family. New Underwood EMS; 6-28 nest with 3 young, 7-1 same nest with 2 dead, cause unknown, Hyde Co. JH.

Great Crested Flycatcher—6-3 (1) Dewey, BKH; 6-6 (1) male calling Gregory Co. BA; 6-24 (2) Rosebud, 6-25 (1) Wounded Knee, Shannon Co. RCR.

Eastern Phoebe—Present Hyde Co.; 6-24 (1) singing at bridge west of Braeburn Addition, Rapid City, (not unusual in a wet year) NRW.

Say's Phoebe—6-13 (1) Cedar Pass, Badlands WH; 6-25 (1) Jackson Co. NRW; 7-9 (2) Sage Creek Basin, Badlands EMS; present, Perkins Co. AH.

Traill's Flycatcher—6-3 (1) Molstad Lake NRW; present Waubay, Hyde Co.

Least Flycatcher—6-3 (1) Molstad L. NRW; quite common, Campbell and Walworth Cos. in June BKH; (2) Farm Island, Hughes Co. BKH, present Waubay.

Western Flycatcher—6-13 (1) Spearfish Valley TH; 6-13 (3) Roubaix, 7-9 through 7-12 present in Rapid and Dark

Canyons after flood NRW; 7-23 (1) Hisega, Penn. Co. NRW.

Eastern Wood Pewee—6-6 (1) calling male, Gregory Co. BA; 7-19 (2) Lesterville, Yankton Co. WH.

Western Wood Pewee—6-6 through 6-8 (1) singing GRB; 6-7 nest CY; 7-2, 7-31 singles, BHAS; 6-24 (2) Rosebud RCR.

Horned Lark—6-25 (20) Jackson Co. NRW; 7-13 many young along roads, Hyde Co.; good hatch, Perkins Co. and Curlew Lake, Meade Co.; Volga route, low count—(17) 1970, (17) 1971, (4) 1972 NH.

Violet-green Swallow—6-15 (35) after rain, Spearfish Valley TH; many feeding on mud flats after Canyon Lake Dam broke, NRW.

Tree Swallow—Present Waubay; 6-3 (6) Campbell Co.; 6-9 active nest box destroyed by flood BG.

Bank Swallow—7-3 (40), 7-21 (1), 7-25 (3), 7-28 (1), 8-6 (6) Yankton Co., 7-13 a flock of about 500 on and about dead willows—most of them Bank, a few Rough-winged, and few Cliff, Yankton Co. WH.

Rough-winged Swallow—Many along Rapid Creek before and after flood BHAS; 7-26 (10) Marindahl L. WH.

Barn Swallow—(5) nests farm yard, many young all period, Perkins Co.; 6-4 (50 plus) Dry Creek bridge, Ziebach Co. EMS; one nest with Cliff Swallow colony, Spearfish Valley; few Yankton Co.; 6-13 through 7-26 nest producing 7 young, Hyde Co. JH.

Cliff Swallow—6-25 (3) colonies, total, 118 nests under bridges, Jackson Co. NRW; (2) colonies—100 nests in one, 12 in the other under bridge, Spearfish TH; 7-25 (100 plus), 8-5 (60), (145 nests 25 to 35 ft. above the water on L&C Bluff WH.

Purple Martin—(2 pair) at one house raised 8 young, Hyde Co. JH; left Waubay headquarters area 7-31.

SHRIKE, STARLING AND VIREO

Loggerhead Shrike—6-2, 6-5 nest 7' in elm, incubating 7 eggs, Oahe Dam WH; 6-7 nest, Elk Creek Valley, Meade Co.

with 7 eggs NRW; many in West River area; 7-13 (1) young flying short distances JH; 7-3 (3) young just off nest, many around, Perkins Co. AH; 7-1 (1) nest Deuel; (1) adult found regularly, Grant Co., but no nest found—uncommon nester in NE S. Dak. BKH.

Starling—8-3 (1 pair) raised two broods, Rapid City, DeF.

Bell's Vireo—6-3 (1 pair) excited about empty nest BKH; 7-5 through 7-26 (1) singing, Marindahl L. WH.

Solitary Vireo—6-28 (6) Roubaix NRW; 7-12 (1) Sanator, Custer Co. JWJ; 7-18 (1) Rapid City EAS.

Red-eyed Vireo—Present during period, Perkins Co.; 7-8, 7-19 (1) GRB. abundant in Dark Canyon after flood NRW, 8-1 (1) Rapid City; 7-26 (1) migrant male, Deuel Co. BKH.

Warbling Vireo—7-1 Yankton WH; 7-9 adult feeding young cowbird on branch, 7-25 through 7-31 singing Rapid City GRB; 6-28 (4) Roubaix NRW; 8-1 (1) Rapid City EAS; Roswell route, (1) 1970, (3) 1972 NH; Howard route, (1) 1971, (3) 1972 NH.

WARBLERS

Black and White Warbler—6-18 (2) singing w. Hermosa, Custer Co. BJR; 6-24 (6) Rosebud, RCR.

Yellow Warbler—7-3 family, 8-3 (3) Rapid City; present Perkins Co., Waubay; 7-21 adult feeding (1) young, Hyde Co.; 7-5 through 7-26 L. Marindahl (1) singing WH.

Audubon's—7-9 (1) singing, yard NRW.

Ovenbird—6-7, 6-12 Spearfish Canyon (1) singing WH; 6-28 (1) Roubaix, few in Dark Canyon NRW; 7-30 (1) Rapid City EAS; 6-20 (1 pair) agitated Newton Hills, Lincoln Co.; 6-6 (1) male, Gregory Co. along Missouri River BKH.

MacGillivray's—7-1 (15) heard and seen, Spearfish and Little Spearfish Canyon RCR.

Yellowthroat—Present Waubay; 7-23 singing, Perkins Co.; Hyde Co.; 6-25 (1) Jackson Co., 6-28 (4) Roubaix NRW; 6-26 (3) Aurora; 7-14, 8-3, 8-5 Marindahl L. (1)

singing WH.

American Redstart—6-4 very common at Farm Island, Hughes Co. BKH; 6-19 (1) GRB, 6-28 (1) singing male, Johnson Siding, Penn. Co. NRW.

HOUSE SPARROW, BLACKBIRD AND TANAGERS

House Sparrow—Fewer at Yankton, otherwise good hatch.

Bobolink—Good hatch Perkins Co.; 6-25 (5) Lacreek RCR; about (3) every day, singing males, Spearfish Valley TH; 6-28 (2) Roubaix, high altitude for this bird, 4700 ft. NRW; 6-26 none in Yankton Co. "Field where they were observed in past years was under water too long for cultivation WH; 7-2 (1) female feeding fledged, begging cowbird BKH.

Eastern Meadowlark—6-25 (5) Lacreek RCR.

Western Meadowlark—6-25 (255) Jackson Co. NRW; 6-26 (53) Aurora WH.

Yellow-headed Blackbird—Increased numbers, Hyde Co.; present Waubay; few Perkins Co.; 7-29 (14) Seavey's Lake NRW.

Red-winged Blackbird—Many nests must have been lost in the flood as all brush was torn out by water or bulldozers EMS; many, Hyde Co.

Orchard Oriole—(10) pairs, ranch, Perkins Co. AH; 6-12 (1) Rapid City EAS; 6-25 (2) Jackson Co. NRW; Volga route, (6) 1971, (2), 1972; Roswell route, (8) 1971, (3) 1972, NH.

Baltimore Oriole—6-10 (1 adult, 1 young) in yard, probably displaced by flood EAS; present, Waubay; 6-24 (1) Rosebud RCR.

Bullock's Oriole—(1 pair) Perkins; 6-8 nest in yard, 6-26 through 7-5 (1 young) GRB, 6-30 (1 nest) fledged (2) and another (4), one male, brown and orange, and the other, full color, black, orange and white, Rapid City, EAS.

Brown-headed Cowbird—6-25 (7) Jackson Co. NRW; present all points; 6-26 (68) Aurora WH; 7-5 through 7-14 (13) Marindahl L. WH.

Brewer's Blackbird—6-28 (2) Roubaix,

7-12 (3) n. Custer NRW.

Western Tanager—June and July (1) singing in yard, 6-28 (13) Roubaix NRW; 7-29 (1) DK, 8-3 (3) DeF, Rapid City; 6-1 (1) male Belle Fourche . . . "Birds change with the changes in men. As population crowds out woodlands in the east and central sections of the country, as airports level native timber and shatter the quiet, birds tend to move away from the crowds and noise. So it is that in recent years, Baltimore orioles are found in this area, as well as the native Bullock. And this spring, for the first time, rose-breasted grosbeaks came to our hill—and still are around. Consequently, it would be no surprise at all to see perched on our feeder some morning a scarlet tanager. But scarlet body, black wings and tail, he will be no more striking than his western cousin, the Western Tanager in yellow and black with a scarlet head. Just as it is with humans, some of them stand out from the crowd." IW.

Scarlet Tanager—6-24 (1) Rosebud RCR; 6-20 (1) singing male, Newton Hills, Lincoln Co. BKH.

Cardinal—6-6 nest with (2) Cardinal and (2) Cowbird eggs, Gregory Co. BKH; 7-10, 7-26, 7-30, 7-31, 8-1 (1) each, 8-3 (1) singing before sun-up, Yankton WH.

Rose-breasted Grosbeak—7-5 (1), 7-15 (2), 7-19 (1) Yankton Co. WH.

Black-headed Grosbeak—6-24 (2) Rosebud RCR; 7-6 (2 pair) Hyde Co.; 6-8 (1) singing, 7-8 (1) young 7-26 singing, GRB, Rapid City; 7-2 (1) road kill, Spearfish TH; 8-1 (2) adults, (2) young Rapid City DK; 8-4 (1) pair yard NRW.

Blue Grosbeak—6-7 (1) male, Meade Co., 6-25 (2) males Jackson Co. NRW; 7-24 (8) from Promise Day School to White Horse, Dewey Co., many, Charles Mix Co. BJR; Howard route, (1) NH. Unusual for eastern South Dakota.

Indigo Bunting—6-1 through 6-9 (1) singing, (1) Indigo-Lazuli X, Spearfish TH; 6-11 (2) males fighting, Rapid City NRW; 6-24 (3) Rosebud RCR; 7-5 through

7-27 (8) in 6 sightings, Yankton WH; present, Corson, Hughes, Gregory and Lyman Cos. BKH.

Lazuli Bunting—6-30 (2) Custer RCR; 7-7, 7-9 (1) Rapid City, EMS, 7-25 (1) pair with food and singing NRW.

Dickcissel—6-2 noted, Hyde Co.; Volga route, (12) 1971, (34) 1972; Howard route, (24) 1971, (41) 1972; Roswell route, (39) 1971, (24) 1972 NH; present Waubay, Perkins Co.; 6-25 (12) Lacreek RCR; 6-26 (30) Aurora Co. WH; 7-5 through 7-26 (4) Yankton WH.

Pine Siskin—7-12 (4) family, Pierre, BJR; 7-31 few on weeds, Rapid City RK.

American Goldfinch—Present Waubay, numerous, Perkins; few Rapid City; 7-13 through 8-3 (10) in 7 sightings, Yankton WH; (2) nests, 5 and 6 eggs, successful, Deuel Co. BKH.

Red Crossbill—Small (6 to 10) flocks around Rapid City, June and July; 6-28 (52) Roubaix, NRW; 8-1 (6) young eating on sunflowers EAS; 8-6 (8) sitting on wire EMS; 7-23 (15) adult and young, some all through period, Pierre BJR; noted (3) times, Deuel and Roberts BKH.

Rufous-sided Towhee—Common city park Spearfish TH; many, Skyline Drive, Rapid City; 6-25 (4) Jackson Co. NRW; present Cresbard, Perkins Co.

Lark Bunting—Howard route, (6) 1971, (13) 1972; Roswell route, none 1971, (11) 1972 NH; many at Rapid City; 7-27 beginning to flock; good hatch, 7-17 nest with 4 eggs, Perkins AH; no sightings but known to nest, Waubay; 6-26 (2) Aurora Co. WH.

Savannah Sparrow—Present at Waubay.

Grasshopper Sparrow—Waubay; 6-25 (12) Lacreek RCR; 6-25 (22) Jackson Co. NRW; 7-5 (6) Spearfish Valley TH; Volga route, (1) 1970, (6) 1971, (1) 1972; Howard route, (31) 1970, (17) 1971, (14) 1972, Roswell route, none 1971, (11) 1972 NH.

Baird's Sparrow—LaPlante to Parade, Dewey Co. singing at 3 stops, BJR; apparently nested at Cresbard—caught in trap 3 times HWW.

Vesper Sparrow—Volga route, (23)

1970, (23) 1971, (25) 1972; Howard route, (12) 1970, (16) 1971, (11) 1972; Roswell route, (12) 1971, (8) 1972 NH; present Perkins Co.; 6-1 nest with 2 eggs, success unknown, Waubay; 7-9 (3) Scenic, Penn. Co., few around Rapid City EMS.

Lark Sparrow—7-9 (18) 2 flocks close together, Scenic, EMS; 8-7 (5) s. Rapid City; 7-19 (1) Lesterville, 7-21 (5) Tabor, Bon Homme Co. WH; 6-25 (5) Wounded Knee RCR; early June singles in Dewey and Lyman on 13 county trip BKH.

White-winged Junco—6-29 (2) Mt. Coolidge, Black Hills, 7-1 (1) Little Spearfish Canyon RCR; 7-19 (2) young in yard NRW.

Chipping Sparrow—Present Hyde Co.; 6-28 (46) Roubaix NRW; seem scarce around Rapid City—probably washed out in flood since they nest low.

Clay-colored Sparrow—Present Waubay; Cresbard; 6-3 (1) Hiddenwood NRW.

Field Sparrow—6-3 (1) Corson Co. BKH; 7-5 through 7-28 (9) in 6 sightings, Marindahl L. WH.

Swamp Sparrow—6-25 (4) Lacreek RCR.

Song Sparrow—Many L. Pocasse and L. Molstad, Walworth Co. NRW; 8-3 and 8-5 (1) singing, Yankton SR.

Chestnut-collared Longspur—6-24 (6) Mission, Todd Co. RCR; 6-26 (5) Aurora WH; 7-13 family with 4 young, Hyde Co.; good hatch Perkins Co. AH; 7-23 good hatch, Curlew Lake, Meade Co.

COPY

Attached is some nesting data for this year at Lacreek National Wildlife Refuge. Sorry I didn't have time to work up more complete information for you. Summer is a busy time here.

This was a record year for waterfowl here. We had the highest number of breeding waterfowl since our census methods were established, 1952, and our production of ducklings was the second highest in the last 20 years, topped only by 1967. The great blue heron nesting attempt is also worthy of note. I haven't

(Continued on Page 63)

Pesticides and Predatory Birds

Michael Moore

THE USE of pesticides, particularly DDT, started less than 40 years ago, and already serious side effects have been observed. One of the most disastrous effects of pesticides is the damage inflicted upon the reproductive cycle of predatory birds. The numbers of predatory birds in Europe and North America are dwindling at an alarming rate.

One species in particular danger is the bald eagle. This bird, the symbol of our nation, is fast becoming extinct. Of course, needless slaughter and shrinking of its natural habitat are partially responsible but the greatest threat to the species is the failure of most adult birds to reproduce efficiently. This latter effect is due to pesticide chemicals present in the birds' bodies. (1)

A peculiarity of DDT and other non-biodegradable chemicals is the tendency toward higher concentrations of the chemical as it moves up the food chain. According to naturalist David B. Peakall, "The birds of prey are particularly vulnerable to the effects of a persistent pesticide such as DDT because they are the top of a food chain. As George M. Woodwell of the Brookhaven National Laboratory has shown, DDT accumulates to an increasingly high concentration in passing up a chain from predator to predator, and at the top of the chain it may be concentrated a thousandfold or more over the content in the original source (see "Toxic Substances and Ecological Cycles," by George M. Woodwell; SCIENTIFIC AMERICAN, March, 1967). The predatory birds, as carnivores, feed on birds that have fed in turn on insects and plants. Hence the birds of prey accumulate a higher dose of the persistent pesticides and are more likely to suffer

the toxic effects than other birds." (2)

DDE, the principal metabolic product of DDT, was found to cause birds to lay eggs with much thinner shells, which often break before hatching. Many eggs that do not break never hatch, or the young chicks die soon after they hatch. The chemical DDE obstructs a bird's ability to deliver calcium to the ovum where the eggshell is formed. (3)

We lack, nevertheless, full knowledge about the way DDE works in birds. Scientists cannot explain why DDE kills the embryo inside the shell. Another unexplained phenomenon is that a relatively small content of only 75 parts per million in the egg reduces the shell thickness over 20 percent; as the dosage increases, the thinning of the shell is more gradual. In other words, amounts of DDE present are not proportional to the decrease in shell thickness. There is also evidence that similar DDE concentrations affect different species in different ways.

Dieldrin, another pesticide, and PCB, a chemical given off when plastics are burned, cause birds to breed abnormally late in the season. This occurrence decreases the chances of survival for the hatchlings; the young do not hatch when food is most plentiful, and thus, their survival is more precarious. At times the eggs may be broken, and Dieldrin and PCB tend to prevent a second attempt at breeding. (4)

From 1967 to 1970, a group from Cornell University and the University of Alaska researched the breeding success and DDT exposure of ALASKAN FALCONS AND HAWKS. This research revealed: "Eggshell thickness was reduced by 21.7 percent in Alaskan tundra peregrines, by 16.8 percent in taiga peregrines, by 7.5 percent in Aleutian peregrines, by 3.3

percent in rough-legged hawks, and not at all in gyrfalcons. Tundra peregrine eggs contain an average of 889 parts of DDE per million (lipid basis); taiga peregrine eggs contain 673 parts per million; Aleutian peregrine eggs contain 167 parts per million; rough-legged hawk eggs contain 22.5 parts per million; and gyrfalcon eggs contain 3.88 parts per million. These changes in eggshell thickness and the pesticide residues reflect different degrees of exposure to contamination. There is a highly significant negative correlation between shell and DDE content in peregrine eggs. Tundra and taiga peregrines have fledged progressively fewer young each year since 1966." (5)

The significance of this study is apparent when one realizes that Alaska is the last stronghold of the peregrine falcon. The peregrine was once widely distributed across the continent. Now there are none east of the Mississippi and only a few in the western states. The decline of the falcons can be directly attributed to the extreme use of pesticides.

The peregrine feeds on primary and secondary predators that are high in pesticide residues. The tundra and taiga peregrines migrate long distances and are thereby exposed to contaminated areas. The Aleutian peregrine does not migrate and feeds on a relatively pure marine food chain. The gyrfalcon remains in the arctic regions and feeds on herbivorous lemmings and voles. It migrates as far south as the northern United States. Thus, the relative pesticide levels can be explained by the birds' eating and migratory habits. (6)

Our use of pesticides has put many birds of prey in danger of extinction. We are very slowly bringing about legislative action to prevent further damage to our environment. But even if we can stop the manufacture of DDT and ban its use, there is still no guarantee that we can save endangered species.

SEPTEMBER, 1972

Naturalist George Ott explains: "Though the use of DDT in the United States may have peaked, the amount present in our waters will continue to show a steady rise for some years for two reasons: (1) DDT already in the soil will continue to be washed into lakes, rivers, and oceans; and (2) DDT is non-biodegradable. It will not break down by normal biological processes." (7)

REFERENCES

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5. T. J. Cade, and others, "DDE Residues and Eggshell Changes in Alaskan Falcons and Hawks," SCIENCE, May 28, 1971, p. 955.
6. T. J. Cade, and others, "DDE Residues and Eggshell Changes in Alaskan Falcons and Hawks," SCIENCE, May 28, 1971, p. 956.
7. George Ott, "Is the Bald Eagle Doomed?" NATIONAL WILDLIFE, April-May, 1970, p. 6.

South Dakota Nesting

(Continued from Page 61)

had time to check all the old records to see if they ever nested before, but this is the first time in several years. Perhaps they will try again next year and be successful.

Sincerely,

Conrad A. Fjetland, Acting Refuge Manager, Lacreek National Wildlife Refuge, Martin, S. Dak.

(The only reason I can give for the herons would be the fact that there are very few trees on the refuge, and those that are there are quite high enough for the herons.—EMS)

Bobolinks

Some Recent Black Hills Observations

N. R. Whitney

THE BOBOLINK (*Dolichonox oryzivorus*) is a characteristic species of tall-grass prairies and alfalfa fields, reasonably numerous throughout South Dakota prairies, but much less numerous in the Black Hills. When Dr. Pettingill and I were compiling known records of occurrence in 1963, the only observations that we could find were one of his near Rapid City and one of Dilger's near Deadwood. We added a third east of Spearfish on June 15, 1964, so that in "The Birds of the Black Hills" (1965), we were able to cite a total of three observations.

Mary Rantapaa's note in "South Dakota Bird Notes" for March, 1972 (page 19) reminded me of three occasions when I have seen Bobolinks in the Black Hills since the publication of the book. These should be on record.

1965 was a wet year, and on July 4 of that year I found two singing males in a canyon-bottom meadow adjacent to the Doty School in Box Elder Canyon, about five miles northwest of Rapid City on the Nemo Road, still in Pennington County. On July 14, 1965, I returned to the same area and found one singing male. Although I spent several minutes searching for a nest in this area, I was unable to find one. I did not see any females, and possibly the male had established a territory here, but had never been joined by a female. The vegetation here was primarily a purple lupine (alfalfa?) with a strong mixture of bindweed (*Convolvulus*). The location is about one-quarter mile south of a bridge over Box Elder Creek.

The other two observations were both in southern Lawrence County in the

bottomland meadows of Middle Box Elder Creek, precisely 0.5 miles south of the junction of U.S. 385 with the road to Roubaix Lake. On June 25, 1970, and on June 20, 1971, while censusing the Roubaix Lake Breeding-Bird Survey route (S.D. No. 27), I heard the distinctive Bobolink song at Stop No. 2, which is on the Ernest Rantapaa ranch. I recorded two in 1970 and one in 1971. Since I stopped at this spot exactly 25 minutes before official sunrise, and since the procedure for the Breeding-Bird Survey limits the time spent at any one stop, I was unable to confirm this observation visually.

From my observations above, and from Mary Rantapaa's report, I believe that Bobolinks may occur in the Black Hills in wet meadows in small numbers during the breeding season, especially between mid-June and mid-July. Possibly, however, the Black Hills meadows may be marginal habitat from the Bobolink point of view, and thus the males that we have observed may not have been able to attract mates. Therefore we still do not know whether Bobolinks actually breed in the Black Hills.

Do Bobolinks come to the Black Hills every year? While this is an impossible question to answer accurately, I recall a comment that Roger Tory Peterson made during one of our field trips during the Wilson Ornithological Society meeting in the Black Hills in June, 1965, to the effect that in wet years, eastern species tend to move and breed further west, while in dry years, western species tend to move and breed further east. Thus, we could expect the Bobolink, primarily an eastern species, to come to the Black Hills during the years of higher spring moisture.

SOUTH DAKOTA BIRD NOTES

Birds Nesting Around St. Martin's Academy

Sister Georgine Essert

ST. MARTIN'S ACADEMY is a high school for girls. The physical plant is a complex of buildings located in a peaceful valley three and one-half miles northwest of Rapid City, just a half mile west of Sturgis Road. The 40-acre plot is covered with ponderosa pine with cedar and juniper underbrush, forming, as it were, a natural wildlife refuge. The city extended its boundaries in 1961 to include St. Martin's within city limits.

The only type of hunting and shooting allowed is that done by camera fans. Besides all manner of bird life, there are also many species of field mice, voles, and ground squirrels, rabbits, marmots, and a small herd of ungulates foraging through the trees. In the winter deer come close to the buildings looking for food and shelter. Deer tracks as well as wild turkey tracks have been found in the snow as close as 25 feet from our patio.

At our Easter Sunrise Service, it is traditional that we begin the lighting of the New Fire outside in the chill dawn of the spring morning. Just as traditional during the service, is the not-to-distant mating call of the pheasant cock as he is awakened from his grassy bed in the field east of the chapel.

Western Meadowlarks are plentiful from April through June. Perhaps only one pair nested on our grounds this year. Robins, finding the lawn filled with their type of dietary delicacies, remained to

nest. At least four robin nest locations are known of; a couple of these boasted of two families during the 1972 season. Tree swallows nested in one of the yellow bird houses and in the clothes line pipe. Mountain blue birds, while not too numerous in the spring, reared at least six families on our grounds this summer, making the bluebird population the highest of all the passerines in our area. In mid-May a pair of Eastern Bluebirds was sighted, but these evidently did not remain to nest here.

In the woods, farther from the buildings, nighthawks are numerous. While walking through the woods at twilight, one must be careful not to step on the ground doves that dwell there, as was the experience of one of the Sisters last August. Black-capped chickadees, tree sparrows, chipping sparrow, red and yellow shafted flickers all nest in our woods. At least one family of black billed magpies nested and reared their young in our trees, and these carnivores helped decrease the bluebird population, devouring at least two young bluebirds on our grounds. Morning doves, hawks, owls, starlings, crows, blackbirds and English sparrows roost in our woods. In June a lazuli bunting was seen feeding on the grass seeds of the prairie grass growing along the fence. Goldfinch and a bluewinged warbler have also been spotted. Many other species of birds have been seen but not definitely identified.

A Calendar for West-River Bird Study

N. R. Whitney

—JANUARY—

Prairies: Look for Horned Larks, Longspurs and Snow Buntings. Also diurnal raptors, such as Rough-legged Hawks and Eagles. Watch for Snowy Owls.

Stream-bottoms: Look for woodpeckers, chickadees, and juncos.

Black Hills: Corvids, chickadees, nuthatches, and juncos are all conspicuous winter residents. Look also for Red Crossbills in pines and Gray-crowned Rosy Finches along roads.

—FEBRUARY—

Open Water: Goldeneyes and Mergansers may move north at the first sign of warm weather. Pintails and other early migrants may appear.

Residential areas: Flocks of Bohemian Waxwings and Evening Grosbeaks may appear. Watch for early Robins.

Black Hills: Red Crossbills may nest in favorable years.

—MARCH—

Prairies: Watch for migrating waterfowl on stock ponds as soon as they thaw. Killdeer, Western Meadowlark, and Red-winged Blackbirds usually appear sometime during March.

Black Hills: Mountain Bluebirds arrive in open areas on edge of pine forests.

—APRIL—

Prairies: Look for courtship of Sage and Sharp-tailed Grouse. Long-billed Curlews, Upland Plovers, and Burrowing Owls arrive on territory. Brewer's Blackbirds and Vesper Sparrows may arrive late in month. Peak of waterfowl migration.

Stream-side trees and brush: Watch for arrival of Grackles, Towhees, and White-crowned and Lincoln's Sparrows.

Black Hills: Myrtle and Audubon Warblers arrive late at lower elevations.

Otherwise still winter. Pinon Jays may nest in April.

—MAY—

Entire remainder of migration occurs. Watch especially for Lark Buntings and Kingbirds in the prairies, and warblers in the Black Hills. Common Nighthawks and Western Wood Pewees usually arrive at very end of month. Watch for nesting at lower elevations.

—JUNE—

Main nesting period. Watch for territorial behavior and nests in all habitats and at all elevations.

JULY—

Prairies: Record whatever bird activity is observed. We really know very little about how prairie birds live in mid-summer. Watch especially for flocking of curlews and others, and for southbound shorebirds.

Black Hills: Look for nesting at higher elevations, especially Terry Peak, Harney Peak, and Black Fox Campground.

—AUGUST—

At all elevations, note all activities. At this time, young are in family groups, and fall flocking is beginning. Record observation dates of all insectivorous birds, such as nighthawks, flycatchers, vireos, and warblers, since some will leave before the end of the month.

—SEPTEMBER—

Record all observations of migratory species, since most leave sometime during the month. Later in month, watch for Sandhill Cranes.

—OCTOBER—

Main Sandhill Crane migration. Look for Rough-legged Hawks in prairies, and for hardy summer residents, such as Robins, Mountain Bluebirds, and Western Meadowlarks in suitable areas.

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Book Review

J. W. Johnson

FAMILY LIFE of Birds. Photographs and text by Hans D. Dossenbach. McGraw-Hill 1971. 192 pages, including Foreword and Index. Profusely illustrated with color photographs, many full page closeups, color diagrams and graphs. 7¾" x 10½". Green cloth. \$12.95.

For a time after this book was received, I kept it where I could page through it occasionally as time allowed, to get the feel of it. The result was that I, not being a strong character, often became lost in it for longer than I had time to spare.

Much can be said for the book, more than space will allow. But a caveat perhaps is best placed here: lavish illustrations, appealing color photographs of young birds and parents, with summaries of many aspects of the subtopics, even the author's warnings of undescribed complexities of each, somehow create the illusion of impossibly complete coverage, even of the small fraction of the some 8,000 known species mentioned. Yet it gives a most enticing glimpse of a Promised Land of ever increasing knowledge of the subject.

A book with this title, given modern photographic techniques, could hardly escape being a picture book. The author, being perhaps first a photographer, has welcomed the necessity and gladly made it so, but with extensive text and graphic illustrations that provide good background for the emotional impact of his pictures. Most of his graphics are clear, though some are a bit complex as color is used to give additional dimensions of data, toward a maximum of information in the space, surely a good fault where the field is practically limitless.

As a book whose first appeal is in its pictures, perhaps a question is justified: do the pictures carry the load? My an-

swer is that they do. I was particularly interested in the words of the book's Scientific Advisor, Dr. Otto Koenig: "I do not know anyone who photographs as Dossenbach does. His lenses obviously function differently from other optical systems: the camera, as well as being an instrument for depicting what he sees, serves him as an interpretive vehicle for his thoughts and dreams. There is no other explanation for the strangely lyrical quality of his pictures. He turns every photograph into a story, an account of nature."

For myself, after years of less than happy attempts at making pictures of birds, I could never escape the thought of how many pictures must have been considered and discarded, out of the vastly greater number made, for each accepted for use in this book. It is a fact of life for the wildlife photographer—that probably seldom occurs to anyone else.

The author is German and wrote in German. His text is compact and informative, fully adequate. The translator, Fritz Bauchwitz, has done a first rate job, leaving no evidence that the original work was not in English.

In addition to the pictures of young and adult birds there are pictures of eggs and a picture series of an egg in progressive stages of incubation, pictures of its hatching, ending with a double page picture of the chick almost dry. There is a section devoted to bird song and its role in the mating game, with a double page of sonagrams (called sound spectrograms here) with songs and calls of five species and four purposes or meaning each to bring out the wide differences, as well as similarities with purpose, among species.

Sections of smaller pictures show closeups of courting behavior, dances,

(Continued on Page 72)



Looking at the golden-breasted glossy starling in the World of Birds at the Bronx Zoo, it is hard to believe that this colorful bird, native to Africa, is related to the common starling, a well-known pest in the United States, which was introduced from Europe in 1890, much to everyone's later regret.—(New York Zoological Photo by Bill Meng)

General Notes of Special Interest

FATIGUED WARBLER, NAIVE YOUNG BLUEBIRD—One Saturday morning in mid-September I ran downstairs and outside to shake my dustmop. Walking between the buildings, I nearly stepped on a young warbler (as nearly as I could identify it, it was a Prothonotary warbler) which had plopped, wings awry, in the grass near the greenhouse. I spoke to the bird, but it did not move. Walking on a few more yards I hastily shook my mop and returned to the bird wondering what could be wrong with it. Most birds, unless they are very young and naive, will not remain conspicuously sitting on the lawn and allow human beings to walk over them. I spoke again to it, while taking note of its complacent sprawled position and saw one downy yellow feather loose and askew on the side of its breast. I reached down and picked up the bird. It immediately changed its composure—mine also changed! The warbler seemed very much alive, awake, and healthy and it did not hesitate to tell me so. As far as I was able to diagnose, in the moment that I held it, it had no broken bones. Releasing the excited bird allowed it free flight to the top of the novitiate entrance—and from there, within seconds it took off into the woods behind our buildings.

Bluebirds are common around our grounds at St. Martin's. One chilly Sunday morning in mid-August, I was sitting on a window ledge between the novitiate building and the dietary wing, scanning the area with my binoculars and attempting to identify the various species of small sparrows which were busy feeding in the grass on the warm south side of the building. When a car backing out of the garage frightened the

happy group, they flew up and went searching for safer surroundings. Supposing he had discovered a secure perch, a young bluebird alighted on my binoculars directly in front of my eyes.

"What are you doing here?" I asked. The bluebird merely cocked his head in a nonchalant fashion. I held the binoculars out farther and then brought them down in front of my chin in order to get a better view of my young friend and to allow him to see me. He seemed very complacent and self-assured, more intent on warming his feet on my binoculars than on investigating my nose which loomed over him like a living Mount Rushmore. He paid little attention to my moving south and to the words which I spoke softly to him. He chirped to me occasionally. After 10 minutes had elapsed, the youngster's parents alighted on the roof of the dietary building, 10 yards away. They spoke in harsh, commanding notes, and within a few minutes, my little friend left his black plastic perch and joined his elders on the blue metal roof margin of the eaves, from hence the tongue-lashing discipline commenced.

Try as I have, since this incident, I have had no luck in getting this close to Friend Bluebird or in convincing him that I'm not as dangerous as I look and that his parents lied to him with warnings of death and tragedy if he happens to sit on my shoulder or again perch on my binoculars.—Sister Georgine Essert, Rapid City, S. Dak.

* * * *

CATTLE EGRET IN FAULK COUNTY—May 3, 1972, I saw a Cattle Egret fly across the road that goes between North and South Scatterwood Lakes, in north-east corner of Faulk County—Harold W. Wagar

NRW's Field Note Procedure

N. R. Whitney, Jr.

IN 1953, I had the opportunity of reading Pettingill's Laboratory and Field Manual of Ornithology. He suggested a field notebook for the beginning student in ornithology, and I have adapted it to my own needs as a method of keeping notes on my field observations of birds.

Pettingill's suggestion is that the student carry a loose-leaf notebook and some sort of a daily field card or checklist. The student can then indicate on the field card each species that he sees. Then he can write down in the notebook his observations, including the date seen, the identifying marks, the habitat, and any other notes concerning the species that he wants to record. He should, however, have a separate sheet in the notebook for each species seen.

In my modifications of Dr. Pettingill's approach, I use two looseleaf notebooks, each measuring 3x5 inches, with a page captioned in advance for each species that I anticipate seeing. Practically, this means that I have one page for each species regularly found at any time of the year in western South Dakota. I then have a third notebook in which I record more general information on each field trip, including localities visited, weather conditions, seasonal aspects of organisms other than birds, and names of field companions. I never have acquired the habit of using field cards, but I would recommend it for anyone who likes to be able to review later the list from a particular day.

The major advantage of my procedure is that I have all my observations on any one species together and in chronological order when I want to review them. One disadvantage, which to me is minor, is that the observations from a day's birding are scattered throughout the notebook. The use of field cards on all

trips can of course eliminate this disadvantage, and in addition would provide a useful cross-index.

The essential supplies needed to make my procedure operate efficiently are (1) one or more notebooks small enough to be carried conveniently in the field, and (2) captioning of a page for each species likely to be seen before going into the field. In addition, the pages should be arranged in an order such that the observer can find a particular species quickly and without undue searching. Personally, I use the AOU Checklist order (exactly as in the Peterson Field-Guides and approximately as in the Robbins, Bruun, and Zim guide) but this is strictly personal, and should be set to the convenience of the observer.

Finally, I find that under field conditions, my handwriting is sometimes difficult to read, and therefore I periodically transcribe my notes onto 8½x11-inch sheets by typewriter.—N. R. Whitney

* * * *

Sept. 13, 1972

Mrs. Edward Drissen
The Heatherton, Apt. 209
4100 Parklawn Ave.
Edina, Minn. 55435

Dear Mrs. Drissen:

I was surprised to find the large pile of South Dakota Bird Notes which you left or mailed to the store. This material has all been placed in the library of the South Dakota Ornithological Union where it will be kept in a safe place.

On behalf of the S.D.O.U. we certainly want to thank you for this very fine gift. Some of the back numbers are getting in short supply and this is a very fine addition.

Sincerely yours,
Herman P. Chilson,
Librarian, South Dakota
Ornithological Union

SOUTH DAKOTA BIRD NOTES

Notes from Sparks' Mini-Ranch

GRASSHOPPERS INVADED the Hills this summer, legions of them, reminiscent of the dirty thirties. Grasshoppers follow dry weather, or so I thought, but this wasn't a dry year.

Anyway, because of the grasshoppers, friends from town brought us two ducks, five weeks old and just getting their permanent feathers.

They took to the creek with evident joy and found the only way out of the yard by swimming under the fence which necessitated a fence building project around the culvert. Next they found the culvert which brings our spring-fed creek under the road so that had to have a wire frame.

The creek was their domain but spasmodically they waddled up the bank and inhaled grasshoppers. For all their clumsy walk they were demons of attack and the agile grasshopper stood no chance as the long necks shot out and the bills clicked shut. We thought of renting them out by the hour.

Domesticated ducks apparently are descended from the wild mallard, the exception being the Muscovy duck. Our Mike and Ike look like wild mallards with their wings tipped with green and black bars but they are larger and have no color on their heads.

Soaked bread and cracked corn form their diets—I set the dish in the creek as they like to wash the corn down. With winter setting in and the grasshopper crop diminishing they demand extra feedings and come quacking to the house to tell us so.

The carpenter of the family is building them a shelter in answer to our wise friends who want to know when we will be having a duck dinner. I'm sure they will be a bother this winter, needing warm water, fresh bedding and all that, but I am also sure that they will live to a ripe

SEPTEMBER, 1972

old age. I hope no one gives us a boa constrictor or an alligator.

Last week we saw our first flock of wild turkeys, at least 25 of assorted sizes, all scurrying into the timber. I hope they find a secluded spot in the deep woods before the turkey season opens.

Don Adolphson, co-editor of BIRD NOTES and the authority on birds has presented his resignation in this issue. Don has given many hours out of his busy life to the obtaining of copy and screening it for each issue of this magazine. He is a stickler for accuracy and has worked to maintain the high standards of BIRD NOTES. He will be very difficult to replace.

My contribution is mechanical. I send the screened copy to the publisher, then proof read and fashion the printed galleys into pages, add the pictures, index, etc., etc., and return the dummy to the publisher. The result is your quarterly, BIRD NOTES.

It would be most interesting to take one issue of this magazine and estimate the number of hours of volunteer labor it represents.

First figure the time spent by each contributor in getting his information, the hours spent tramping through the woods and fields, or returning again and again to some special tree to watch the nesting process, or the combined hours of bird watching and book checking to get one of the compilations that Esther Serr so painstakingly puts together.

Now add the hours at a typewriter, few, if any contributors are typists by profession. Consider how many dictionaries are worn out, and then Don's part, my part, and last that of Herman Chilson who must mail and address each copy.

Equally important are the other

details, our cover artist who draws a bit of himself into each drawing, and Nelda Holden who has the thankless job of trying to make the money from dues stretch to cover publication costs. Think of the hours spent in planning the meetings and the president's part in keeping the wheels turning, or the secretaries in handling the correspondence. All these many hours of painstaking work are volunteered, surely each issue is a labor of love.

While you are thinking about it ask your friends and neighbors to join SDOU so we can spread all this love around.

That's "30" for now.

Book Report

(Continued from Page 67)

and rituals of various species, often so close and well done one wonders about the methods and equipment. After these triumphs a series showing peacocks displaying, that would be trite in the work of anyone else, closeups of their heads and faces—and personalities—seems not at all overdone.

Various full page photographs I would like on our walls: a pair of Swallow-tailed gulls; a family of Blue Titmice being fed in their nest; Blue-footed Boobly parents with their one chick between them; Ringed Plovers on a beach; a head and neck of a peacock; nesting Kittywakes on the cliffs of the Farne Islands off the east coast of England—and others.

Of course we could wish for a similar book devoted primarily to North American Birds, though they do get a good share of attention in this one. The field covered is world wide, from largest to smallest, and from Tinamous to Passerine. It will likely be a long time before a better summary of the subject is made.—Huron

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Calendar

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Winter waterfowl concentration begins to build up at Canyon Lake. Watch any open water for gulls.

—NOVEMBER—

Waterfowl migration at height, especially at Canyon Lake and other open water. Watch for Bald Eagles along Missouri River and in Custer State Park when bison are being slaughtered. Watch for northern winter residents, such as Rosy Finches, Redpolls, and Snow Buntings, along roadsides both in prairies and in the Black Hills.

—DECEMBER—

Watch for all wintering species.—N. R. Whitney

New Editors Needed

At the end of 1972, I will retire as Co-Editor for South Dakota Bird Notes. It's been truly a rewarding experience and I admit to a great reluctance to leave. Nevertheless, I have become limited with things I can do with the short time I have free.

Working for SDOU is exciting and rewarding, and I am grateful for having had the opportunity to be Co-Editor. I know that my successor, not yet identified, will enjoy the work as much as I did. I will continue to accept articles to Bird Notes until a new Co-Editor is appointed.

—Don G. Adolphson

In the spirit of sharing a good thing I have decided to add my resignation to that of Don. I have thoroughly enjoyed putting BIRD NOTES together and have enjoyed working with Don but I am sure it is time for a change.

I will continue to handle my part of the editorship until a new editor is appointed.

—Winona Sparks

SOUTH DAKOTA BIRD NOTES