## GENERAL NOTES

Ingestion of fishing lures by Little Blue Herons.—At each of two mixed heronries about 25 miles apart in Creek County, north-central Oklahoma, herons that swallowed fishing lures have regurgitated them along with food brought to the nestlings. The herons are of four species — Cattle Egrets (Bubulcus ibis), Little Blue Herons (Florida caerulea), Great Egrets (Casmerodius albus), and Snowy Egrets (Egretta thula), in about that order of abundance. On 18 June 1977, while censusing one of the heronries (near Drumright, Oklahoma), Vicki Hatfield and I found a yellow plastic fishing worm 10 mm. long hanging from the limb of a blackjack oak (Quercus marilandica) just below a nestful of Little Blue Herons. On searching the ground under the nest, we found another plastic worm, this one purple and about 6 mm. long. Neither lure had an attached fish hook, nor could we find any hook on the ground. Close examination of the yellow worm revealed insect fragments on its surface and a tear, presumably from a hook, near its head.

At the other colony, near Sapulpa, Oklahoma, on 7 July 1977, I found segments of two plastic worms in a part of the colony throughout which the Little Blue Heron was by far the commonest species. Both segments were about 5 mm. long and lacked hooks. One was purple, the other purple with yellow tail.

The two major reservoirs and numerous ponds of the area provide plenty of food for the herons. They are also fished extensively by men. What I have reported above indicates that the herons may find and swallow the plastic lures rather often (see Grover, 1978, Bull. Oklahoma Orn. Soc., 11: 19). When equipped with hooks, artificial lures of this sort are a deadly hazard for such aquatic birds as herons. Denick (1976, The Practicing Veterinarian, Dow Chemical Co., Midland, Mich., 48:20-21) reports that at a bird sanctuary near St. Petersburg, Florida, over 5,500 sick and injured herons and pelicans have been treated since 1971. Most of the injuries were caused by fish hooks and monofilament fishing line. — Gary W. Sallee, Route 2, Box 164A, Yale, Oklahoma 74085, 27 March 1978.

Ross's Goose in Grayson County, north-central Texas.—Ross's Goose (Chen rossii) has recently been reported twice from the Tishomingo National Wildlife Refuge in south-central Oklahoma, a single bird seen on 28, 29, and 30 December 1970 (Zahm, 1971, Bull. Oklahoma Orn. Soc., 4: 32-33), and a single bird collected on 15 November 1975 (Newsom, 1976, Bull. Oklahoma Orn. Soc., 9: 32). On the Hagerman National Wildlife Refuge, at the south end of Lake Texoma's Big Mineral Arm, almost directly south of the Tishomingo refuge, Ross's Goose has been seen repeatedly during and since the winter of 1965-66. The following review of sightings is in order.

1965-66: A single bird, seen and identified by Refuge Manager F. A. Bolwahnn on 9 November 1965 was seen again by J. P. Ferrill *et al.* on 27 December (1966, Audubon Field Notes, 20: 332). Refuge personnel last saw the bird on 11 March 1966.

1974-75: On 7 December 1974, my young son Karl and I saw two Ross's Geese standing by themselves on a small mound about 100 meters from the main road through the refuge. One bird, probably immature, was grayish on the head and neck. After we had watched the two for a time through a spotting scope, they suddenly took wing, flew about 100 meters, and alighted with nine Snow Geese (C. caerulescens). They were seen again on 21 December — by C. R. Brownet al. (1975, Amer. Birds, 29: 503). Until their departure on 19 January 1975, the two were invariably together when seen, and usually they were with the nine Snows. The two Ross's might well have arrived as early as 19 November, for on that date Assistant Refuge Manager J. Fleischer noted that the flock of nine Snows that he had been watching since early November had become larger by two.

1976: On 21 February 1976, I saw three Ross's Geese on the refuge. All were adult, for in each the area between the base of the bill and the nostril was bluish. Each was identifiable individually from the distribution of the rusty stain on head and belly. J. Fleischer and I saw the three birds repeatedly through 16 March (1976, Amer. Birds, 30: 735).

1977: On 15 March 1977 I noted five Ross's Geese in a flock of about 300 Snows, about 60 of which were of the blue phase. On 24 March, by which date the flock of Snows had dwindled to about 150 birds, I could detect only two Ross's. When I last saw these two, on 27 March, the flock of Snows still numbered about 150. Two days later the only white geese still present on the refuge were a flock of 12 Snows.

On 22 November 1977, I saw six Ross's, all of which appeared to be fully adult, for in each of them the base of the bill was dark. On 13 December I counted seven Ross's, one of which was immature, for there were gray areas on the top of the head and the back and many scapulars were gray. The seven were with a mixed flock of about 200 Snows and several thousand Canada Geese (Branta canadensis). Refuge personnel who saw all seven Ross's on 31 December expected the birds to remain for several more weeks.

1978: In January, February, and early March of 1978 four to seven Ross's Geese were seen repeatedly on the refuge by various observers. My own last sighting of the species was on 16 March. On that date I saw four Ross's with about 200 Snows. Most of the Snows departed for the north about that time, but a flock of about 60 Canadas remained until 30 March.

Of the 20 Ross's that I have seen on the refuge (I did not see the bird in 1965-66), all appeared to be adult except for one bird in 1974 and one in 1977. All 20 were noticeably smaller than the white-phase Snows, though not conspicuously smaller than the first year blue-phase Snows. Adult Ross's were wholly white save for the black of the primary wing feathers. The only birds that showed rusty staining (Hohn, 1955, Auk, 72: 414; Palmer, 1970, Handb. North Am. birds, 2, Pt. 1, p. 159) were the three seen in 1976.

The whiteness of adult Ross's seemed to me to glisten more than that of adult white-phase Snows. Ross's bill was shorter proportionately than the Snow's; it had no grinning patch; and the bluish area between base and nostril was quite perceptible in the field. The bill's wartiness, even when looked for through the spotting scope at only 40 meters was not detectable by me, though I did see what appeared to be wrinkles or crevices (see Buckley, 1969, Auk, 86: 551-52). Delacour (1954, Waterfowl of the world, Country Life Ltd., London, 1:134) states that wartiness is conspicuous in older males but inconspicuous or lacking in females and young birds. Although individually variable, wartiness is believed to appear in birds of both sexes when, at two or three years, they attain sexual maturity (Palmer, 1976, Handb. North American birds, 2, Pt. 1, pp. 155 and 165). — Karl W. Haller, Box 1615, Austin College, Sherman, Texas 75090, 11 April 1978.

Surf Scoter in Jackson County, Oklahoma.—From about 1510 to 1540 on 30 September 1977. Jack D. Tyler and several of his Cameron University students (including me) observed three puzzling, black-looking ducks that remained close together well out from shore at the city reservoir in Altus, Jackson County, southwestern Oklahoma. We circled the impoundment, doing our best to see the birds clearly despite the wind and large waves. Using a 30x telescope, we perceived that two of the ducks each had a "humped" bill and two white cheek-spots. The third bird kept its head partly tucked under its scapular feathers, so we never saw its bill, but we did see, and clearly, a bold white patch on the nape and another on the forehead — characters declaring their wearer to be a drake Surf Scoter (Melanitta perspicillata). The white cheek-spots on the other two birds were not diagnostic, for hen and immature drake White-winged Scoters (M. deglandi) also have them, but since the three birds seemed to be of the same size, we judged them all to be Surf Scoters. They were the only birds in the middle of the impoundment. In sheltered water along the shore were several American Coots (Fulica americana) and some domestic geese and ducks.

Melanitta perspicillata winters and migrates along U.S. outer coasts principally, but there are several records for Oklahoma, most of them from the eastern part of the state. According to data filed at the University of Oklahoma Bird Range, the earliest fall sighting on record is for 18 October: on 18 October 1970 F. S. Romero et al. saw one bird at Tulsa, Tulsa County, northeastern Oklahoma (1971, Amer. Birds, 25: 75). Our Jackson County sighting is, therefore, almost three weeks earlier than the Tulsa County sighting. The species has not heretofore been reported from southwestern Oklahoma — though Rena Ross has on two occasions seen a single bird on a farm pond near Durham, Roger Mills County, west-central Oklahoma. One of these, believed by her to be immature, she saw from 23 to 26 May 1975 (1975, Bull. Oklahoma Orn. Soc., 8: 27), the other on 1 November 1975. The latter sighting has not heretofore been published.—Anthony R. Gilliland, Dept. Biological Sciences, Cameron University, Lawton, Oklahoma 73505, 3 September 1978.

Immature Cooper's Hawk attempts to capture Roadrunner.—On 6 December 1977 we watched an immature Cooper's Hawk (Accipiter cooperii) as it flew over and perched near a mowed-grass clearing on the Hagerman National Wildlife Refuge just south of Lake Texoma near Sherman, northeastern Texas. The clearing had frequently been visited by one of the several Roadrunners (Geococcyx californianus) that we had been studying the preceding summer.

At 1249 on 20 December, after we had been watching another of our Roadrunners (recognizable individually by certain broken-off tail feathers) for about an hour as it foraged in the clearing, we again saw an immature Cooper's Hawk. This time the hawk left a stand of oaks at the south edge of the clearing, flew near the ground, and hit the Roadrunner from behind. The Roadrunner, whether wounded or no, zigzagged to the nearest cover, a patch of greenbrier brush about 8 meters (25 feet) from the attack point. As the Roadrunner fled, the hawk hopped and flew within about a meter (3.2 feet) behind it. The Roadrunner outmaneuvered its pursuer and disappeared in the brush. The hawk flew up into an oak, where it perched until our approach put it to flight.

While escaping from the hawk, the Roadrunner spread its tail, flashed its wings, and dodged, following a running pattern often observed by us and by Whitson (1976, The Living Bird, 14: 215-55) among Roadrunners engaged in intraspecific territorial disputes. The behavior suggests (1) that the brilliant splashes of white distract the pursuer and (2) that the spread tail and wings act as rudders and brakes facilitating sharp turns. Escape movements that we observed on 20 December did not appear to us to differ from movements observed previously when one Roadrunner was escaping from another.

When we saw the Roadrunner next day in the clearing it appeared to be uninjured, though more wary than usual.

The Cooper's Hawk that we saw on 20 December appeared to us to be similar in size to the Roadrunner that it struck. We believe the hawk to have been a male bird. According to Craighead and Craighead (1969, Hawks, owls, and wildlife, Dover, New York, p. 427), male Cooper's Hawks weigh 380 grams, females 516 grams. Thirteen full-grown male Roadrunners in the University of Oklahoma collection weighed from 221.1 grams (emaciated bird found dead in central Oklahoma on 28 January 1978) to 488.0 grams (very fat bird taken in south-central Oklahoma on 29 December 1956), averaging 363.1 grams.

We recently have come upon another instance of hawk-Roadrunner interaction. In G. M. Sutton's "Fifty common birds of Oklahoma" (1977, Univ. Oklahoma Press, Norman, p. 14) there is a brief narrative concerning a Red-tailed Hawk (Buteo jamaicensis) that made several attempts to capture a Roadrunner. According to Dr. Sutton's personal notes, the interaction was observed by him and his students near Norman, Oklahoma on 22 September 1956.—Kathleen G. Beal, Dept. Biology, Capital University, Columbus, Ohio 43209; Roger E. Beal, Office of Univ. Architect, The Ohio State Univ., Columbus, 43210, 26 October 1978.

Barn Swallow in Comanche County, Oklahoma in February.—In the early afternoon on 25 February 1978 (day sunny and calm, temperature about 50°F.), as I was driving along old U.S. Highway 62 about 6 miles east of Indiahoma, Comanche County, southwestern Oklahoma, my attention was attracted to a small bird perched on a barbed-wire fence along the road. As I slowed down, it took flight, revealing the orangered of its underparts, the "blackish" of its upperparts, and its deeply forked tail. Obviously it was not a Scissor-tailed Flycatcher (Muscivora forficata): it was a Barn Swallow (Hirundo rustica).

The date is exceptionally early. The earliest spring-arrival date heretofore published for Oklahoma is 9 March 1972, when a single bird was seen 5 miles south of Summerfield, LeFlore County, southeastern Oklahoma, by R. M. LaVal (1973, Bull. Oklahoma Orn. Soc., 6: 7-8).—Carol A. King, Route 2, Box 74, Indiahoma, Oklahoma 73552, 3 March 1978.

Sage Thrasher in Comanche and Jackson counties, Oklahoma.—On 21 December 1974 (weather mild; little wind; air temperature in mid-afternoon 63° F.) Robert E. Morgan found a Sage Thrasher (Oreoscoptes montanus) dead on a blacktop road near Caddo Lake about a mile west of Wichita Mountains Wildlife Refuge headquarters in Comanche County, southwestern Oklahoma. The bird had, apparently, just been struck by an automobile. The specimen is now No. 527 in the Museum of Zoology collection at Cameron University. The Sage Thrasher has been taken in several counties of southwestern Oklahoma, but inclusion of Comanche County as one of them by Sutton (1974, A check-list of Oklahoma birds, Stovall Mus. Sci. & Hist., Univ. Oklahoma, Norman, p. 32) was in error; the Wichita refuge specimen here reported is the first for Comanche County.

John W. Ault III tells me that he saw a Sage Thrasher about 3 miles east and 2 miles south of Eldorado, Jackson County, on 10 October 1972. This is the first sighting on record for Jackson County.—Jack D. Tyler, Department of Biology, Cameron University, Lawton, Oklahoma 73505, 23 February 1976.

Second winter sighting of Blue-gray Gnatcatcher in Oklahoma.—At about 1000 (CST) on 23 December 1977, in my backyard on the west side of Stillwater, Payne County, north-central Oklahoma, I heard a high-pitched spee coming from an eastern red cedar (Juniperus virginiana) beside the house. The call, though familiar, was not one that I was used to hearing in winter. I "hissed" a few times. Almost immediately a small bird with long tail and white outer rectrices responded by flying into the tree under which I stood, another cedar. A few more "hisses" from me and there, almost within touching distance, perched a Blue-gray Gnatcatcher (Polioptila caerulea) whose blue-gray back, white underparts, slender bill, and white eye-ring were unmistakable.

The Blue-gray Gnatcatcher is a common summer resident throughout much of Oklahoma, but the occurrence of such an essentially insectivorous bird in winter is puzzling. According to the summary of records on file at the University of Oklahoma Bird Range, Polioptila caerulea has heretofore been seen in Oklahoma in winter only once: on 26 December 1955, George M. Sutton et al. saw a single bird along the edge of a woodland near Norman, Cleveland County, central Oklahoma (Sutton, 1974, A check-list of Oklahoma birds, Stovall Mus. Sci. & Hist., Univ. Oklahoma, Norman, p. 33). The species has been sighted twice in November — a single bird along the Red River south of Davidson, Tillman County, southwestern Oklahoma on 26 November 1965 (G. M. Sutton), and "a few" near Caddo. Bryan County. southeastern Oklahoma on 6 November 1883 (Cooke, 1914, Auk, 31: 493)-and twice in October: on 2 October 1926 in Cleveland County (Nice, 1931. Birds of Oklahoma, p. 145) and on 2 October 1970 in Tulsa, Tulsa County (Anne Reynolds). It would appear from the above that most Blue-gray Gnatcatchers have left Oklahoma for the south by the end of September.-Victor J. Heller, Department of Ecology, Fisheries, and Wildlife, Oklahoma State University, Stillwater, Oklahoma 74074, 1 February 1978.

Predation by Loggerhead Shrike.—At about 1830 on 17 February 1978, while we were watching several Pine Siskins (Carduelis pinus) that were at a feeding platform in the backyard at 110 Mathews in Stillwater, Payne County, north-central Oklahoma, the birds suddenly scattered as if alarmed. We then observed a Loggerhead Shrike (Lanius ludovicianus) flying from the feeder with a siskin, held by the back of the neck and probably still alive, in its beak. The shrike flew to an eastern red cedar (Juniperus virginiana) in the backyard and disappeared. As we moved from the house, hoping for another look, the shrike flew from the tree toward a row of cedars about 30 yards away, carrying the siskin — by this time apparently dead — in its feet.

On the morning of 29 April 1978, while we were driving along an unpaved section-line road ½ mile east of Lake McMurtry in Noble County, north-central Oklahoma, we found a dead Grasshopper Sparrow (Ammodramus savannarum) impaled through the forehead on a barb of the top strand of a barbed-wire fence. The carcass was limp; no wounds or blood stains were visible on it. We failed to see a shrike close by on that occasion, but we have seen many shrikes in the area from time to time and do not doubt that one of them had caught and impaled the sparrow.—R. Richard Leppla and David H. Gordon, Department of Ecology, Fisheries, and Wildlife, Oklahoma State University, Stillwater, Oklahoma 74074, 28 July 1978.

Longevity and dispersal of Oklahoma's Purple Finches.—Since moving to our acreage near Jay in Delaware County, northeastern Oklahoma, in the fall of 1975, I have recovered two male Purple Finches (Carpodacus purpureus) both of which were banded about 5 miles away by Oneta Puckette in the late winter of 1971-72. One of these (79-18379) was banded on 2 March 1972, retrapped by me on 14 March 1977, again on 18 December 1977; the other (79-18216) was banded on 5 February 1972 and trapped by me on 26 December 1977. Each was in dull female-like first-year plumage when banded in 1972 but in bright adult male plumage in 1977. Both reappeared frequently at my station until late March 1978, when nearing age seven.

For Purple Finches to live for six years or more is exceptional. Among 95 recoveries of 4469 Purple Finches banded at Ardmore, Pennsylvania, many years ago, only one each had lived five, six, and seven years beyond the original banding date (Groskin, 1950, Bird-Banding, 21:93-99). Of the 3230 Purple Finches banded by Oneta Puckette in Jay between 1964 and 1972, 327 returned to the home station in one or more subsequent years. A total of 5 were between six and seven years old when last retrapped by her (plus the two recovered at the Baumgartner station). Another that hit a picture window in Jay was almost eight. Her oldest bird lived to be almost nine (pers. comm.).

Only six Oklahoma banders have reported handling appreciable numbers of Purple Finches: Oneta Puckette—6958, C. F. Marshall—2882, Emma Messerly—696, Marguerite Baumgartner—615, W. A. Carter—591, Sophia Mery—125 (all pers. comm.). Of the 11,867 processed by them in the past 25 years, 26 have been banded in Oklahoma and recovered elsewhere or banded elsewhere and recovered in Oklahoma—as revealed by extensive personal correspondence. States and Canadian Provinces involved along the migratory routes have included: Iowa 2, Missouri 1, Illinois 1, Louisiana 1, Tennessee 1, North Carolina 1. In the breeding range were: Manitoba 2, Minnesota 9, Wisconsin 5, Michigan 2, New York 1, eastern Quebec 1.—A. Marguerite Baumgartner, Little Lewis Whirlwind Nature School and Sanctuary, Jay, Oklahoma 74346, 24 August 1978.

Sharp-tailed Sparrow in Osage County, Oklahoma.—At about 0800 on 17 November 1977 (sky intermittently cloudy, air temperature about 40°F.), while my wife Dotty and I were at a marshy spot below a prairie pond on the Mike Friend ranch in Osage County, northeastern Oklahoma (not far from Bartlesville), I had an excellent look at a Sharp-tailed Sparrow (Ammospiza caudacuta). We had gone to the place hoping to photograph Le Conte's Sparrows (A. leconteii), for my wife and Ella Delap had seen several Le Conte's there the day before. While I was standing near a fence just below the pond's dam

with camera in hand, and my wife was wading slowly back and forth hoping that the Le Conte's, when flushed, would fly to the fence as they had the day before, a sparrow that was obviously not a Le Conte's flew up to the fence and alighted. Its back was brownish black, striped with white, and its cap was dark. The whole face, except for the triangular gray auricular patch, was rich buffy orange and the breast was the same color. I had a clear view of the bird's profile and also of its back. When the Le Conte's began alighting on the fence, I compared the two species directly: the Sharp-tail was the larger and, over-all, much the darker. The Sharp-tail presently dropped down into the tall grass and did not reappear. After I had photographed the Le Conte's I waded into the marsh hoping to flush the Sharp-tail, but I did not see it again.

Ammospiza caudacuta has not heretofore been reported from Osage County; it has, however, been sighted on two occasions in Tulsa County (Sutton, 1974, A check-list of Oklahoma birds, Stovall Mus. Sci. & Hist., Univ. Oklahoma, Norman, p. 45) and a specimen was found dead under a TV tower near Coweta in Wagoner County on 9 October 1974 (Norman, 1975, Bull. Oklahoma Orn. Soc., 8: 26). Other Oklahoma specimens are from Cleveland and Murray counties. The species is to be looked for statewide in marshy places during the migration season.—Howard W. Goard, P.O. Box 591, Bartlesville, Oklahoma 74003, 6 February 1978.

FROM THE EDITOR: Because the Roadrunner is a unique part of Oklahoma's avifauna, a recent paper in The Southwestern Naturalist (1978, 23: 1-28) deserves a brief review. Leon J. Folse, Jr. and Keith A. Arnold studied populations on the Welder Wildlife Refuge near Sinton, south Texas, in 1972 and 1973. Some of their findings: (1) paired birds constituted the basic social unit; they were territorial and usually occupied dry brushy areas well away from water; these territories were used all year and had an average maximum diameter of about 0.7 km (2/5 mi.); (2) a population density of 3.1 and 2.5 individuals per km² (about 2/5 of a square mile) was found in 1972 and 1973, respectively; (3) 26 of 28 nests were placed in shaded situations so that insolation did not seem to be important in thermoregulation of nestlings; (4) reproductive success was only 12 and 32 percent respectively in 1972 and 1973, and clutch size ranged from 2 to 7 eggs, averaging 4: (5) clutch replacements were frequent due to a high rate of nest predation (losses about 70%, probably from snakes), and two-broodedness was common. In Arizona, however, Ohmart (1973, Observations on the breeding adaptations of the Roadrunner, Condor, 75: 140-149) found no nest predation.

In general, south Texas Roadrunners adjusted quickly to unpredictable environments in several ways. The variable nature of clutch size and laying intervals together with differential growth rates of young allowed them to respond rapidly to nest failure.—Jack D. Tyler.

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