wing-beat. In light winds or under calm conditions, the rate of a California Gull's wing-beat is more like that of a Ring-billed Gull than that of a Herring Gull. However, in moderate to strong winds, gulls beat their wings irregularly.

Second-year California Gulls are most easily confused with second-year Ring-billed Gulls. At this age, both have dark subterminal bands on the tail. However, the tail band of a California Gull is decidedly wider than that of a Ring-billed Gull (Godfrey, op. cit., p. 180). The California Gull is also larger, but identification is still difficult. Both species have dark subterminal bands on their bills. Adult California Gulls are most readily identified by their greenish or yellowish legs and yellow bill. The bill bears a red spot near the tip of the lower mandible often, but not always, accompanied by a black spot. The irides of the adult are usually brown (sometimes gray) in contrast to the yellow irides of adult Ring-billed and Herring gulls (Godfrey, loc. cit.).

Because the Herring Gull does not normally occur in Oklahoma before 1 October (Sutton, G. M., 1974, A check-list of Oklahoma birds, Stovall Mus. Sci. & Hist., Univ. of Oklahoma, Norman, p. 18), any dark gull observed in the state from August through October should be scrutinized carefully. It could well be an immature California Gull.

I thank Dr. John S. Weske, Dr. Ralph Browning, and other members of the staff at the U.S. National Museum for confirming the identification of the *L. californicus* specimen. Gary D. Schnell and Jack D. Tyler provided useful comments for improving earlier versions of this paper.

STOVALL MUSEUM OF SCIENCE AND HISTORY, AND DEPARTMENT OF ZOOLOGY, UNIVERSITY OF OKLAHOMA, NORMAN, OKLAHOMA 73019, 1 JULY 1979.

GENERAL NOTES

First fall record for Purple Gallinule in Oklahoma.—At 0745 on 10 September 1977, while Randy Hiatt and I were hunting teal on the north shore of Lake McMurtry in Noble County, north-central Oklahoma, Hiatt noticed a dark rail-like bird alighting in a dense stand of smartweed (Polygonum sp.) that grew in a shallow cove about 50 meters (55 yards) from our blind. As we approached the spot at which the bird had alighted, it took flight, moving off slowly. I shot and retrieved it, finding it to be an immature Purple Gallinule (Porphyrula martinica).

Buffy brown suffused the specimen's head, neck, and sides, there being no white stripe on its side like that which parallels the edge of the folded wing in an immature Common Gallinule (Gallinula chloropus). The upper part of the body was glossy olivegreen, while the outer vanes of the primaries, greater primary coverts, and alular quills had a purplish blue iridescence. The eyes were bright yellow, the legs and toes pale yellow except for a dull olive-green tinge on the frontal scutes of the tarsometatarsi. The maxilla was dark brown proximally and yellowish brown distally, the mandible yellow, lighter toward the tip than throughout the proximal half. Measurements were: total length (slightly stretched) 295 mm., wing (chord) 150, tail 69, culmen 39. The specimen proved to be a female.

Sutton (1974, A check-list of Oklahoma birds, Univ. Oklahoma Press, Norman, p. 13) listed no fall record for the Purple Gallinule in Oklahoma. The three specimens of the

species at the University of Oklahoma Bird Range are all adults — one male, one female, and one of undetermined sex. The one specimen that has heretofore represented the species at Oklahoma State University is an adult male (OSUM 102). Our immature specimen (OSUM 2290) represents the first fall record of Porphyrula martinica for Oklahoma.—Victor J. Heller, Dept. Ecology, Fisheries and Wildlife, Life Sciences West 402, Oklahoma State University, Stillwater, Oklahoma 74074. 3 January 1978.

Spotted Sandpiper breeding in Texas County, Oklahoma.—On 16 July 1978 I spent the morning looking for birds in a flat, low-lying, virtually treeless area about 6 miles northeast of Hardesty, Texas County, northwestern Oklahoma. The focal point of my fieldwork was a cluster of small shallow ponds below the dam of the partly-filled Optima Reservoir, an impoundment of the Beaver River. The ponds were separated by fairly wide strips of ground, much of it wet and covered with weedy forbs. A little-used road followed dry ground between the ponds.

The most conspicuous birds of the area were the American Avocets (Recurvirostra americana), about 20 of which continued to fly about me, calling pleep! noisily. They were so obviously agitated that I felt sure they were nesting, but I failed to find a single young bird or nest. Egg fragments that I picked up proved to be those of the Killdeer (Charadrius vociferus) and Snowy Plover (C. alexandrinus).

Almost as noticeable as the avocets were the Least Terns (Sterna albifrons), eight or ten pairs of which were nesting about the ponds. I found no tern nest with eggs, but I did find an almost fledged young tern crouching under a small salt cedar bush. Among the parent terns that flew about calling loudly and lunging at me I saw no fully fledged young bird.

The three pairs of Snowy Plovers were not at all conspicuous. Two pairs that I watched each had at least one downy chick, and a third pair on a mudflat some distance away behaved as if they had young.

The Snowy Plover, American Avocet, and Least Tern apparently have not heretofore been found nesting in Texas County (Sutton, 1967, Oklahoma birds, Univ. Oklahoma Press, Norman, pp. 172, 207, 224; 1974, Check-list of Oklahoma birds, Stovall Mus. Sci. & Hist., Univ. Oklahoma, pp. 13, 17, 19).

By far the most interesting bird that I found was the Spotted Sandpiper (Actitis macularia), a species that may nest in northern Oklahoma more widely than has been supposed. While walking along the above-mentioned road I flushed two of these sandpipers, one of which flew to the opposite side of the pond while the other remained close by, tipping its tail up and down excitedly, calling pee weet in a shrill voice, and circling out over the water when approached too closely. From the behavior of this nearer bird I felt sure that it had a nest or young not far away. Presently I saw a young sandpiper on the opposite side of the pond. It was running among some small salt cedars, giving a soft peet call, and tipping its tail just as an adult Spotted Sandpiper would. After a short chase I caught it, for it was still downy and quite unable to fly. It was, indeed, a Spotted Sandpiper chick, a still-downy individual with largely sheathed remiges and rectrices, the former about 6 mm. long, the latter almost completely hidden by the deep caudal down.

What I have just reported represents the fourth documented breeding of Actitis macularia in Oklahoma. Two nests, each with three downy chicks, were discovered in Cimarron County, at the west end of the Panhandle, by R. Crompton Tate, the first on the H. G. Willson ranch near Kenton on 30 June 1910 (Tate, 1923, Proc. Oklahoma Acad. Sci., 3: 43; Nice, 1931, Birds of Oklahoma, p. 91), the second "near Kenton" on 12 July 1911 (Nice, loc. cit.). On 25 and 26 June 1966, in the Sand Creek area of Keystone Reservoir about a mile east of New Mannford, Creek County, northeastern Oklahoma, John S. Tomer observed an agitated adult Spotted Sandpiper with a smaller, darker sandpiper that he believed to be the adult bird's progeny. On the following day (27 June), at the very same place, L. Bruce Reynolds and his wife Anne

observed an adult Spotted Sandpiper and a still-downy chick barely able to fly (Sutton, 1967, p. 188).

Actitis macularia summers widely in Kansas, there being several breeding records for the northeastern corner of the state (Johnston, 1964, Univ. Kansas Publ. Mus. Nat. Hist., Lawrence, 12: 613), and one record (nest with four eggs) for Barton County, central Kansas (Parmelee, Schwilling, and Stephens, 1969, Kansas Orn. Soc. Bull., 20:17).

In Texas the species summers irregularly and locally in the northern quarter of the state "and on and near the Edwards Plateau," but the only valid breeding record since the time of Audubon is of a "parent with young" seen by A.J.B. Kirn on 14 July 1920 in Deaf Smith County in the Panhandle (Oberholser, 1974, The birdlife of Texas, Univ. Texas Press, Austin, 1:336).

In New Mexico, summering of the species has been observed at higher elevations, notably in the area just west of Clayton in the northeastern corner of the state (Ligon, 1961, New Mexico birds and where to find them, Univ. New Mexico Press, Albuquerque, p. 118).

Actitis macularia is said to breed throughout most of Colorado (Kingery and Graul, Editors, 1978, Colorado bird distribution latilong study, Colorado Field Orn., p. 16). A nest with eggs found at Two Buttes Reservoir in Baca County, southeastern Colorado, was not far from Oklahoma (Hugh Kingery, personal comm.).

In Arkansas, the species is well known as a transient, but the only midsummer records are for Saline County in the central part of the state (Baerg, 1951, Birds of Arkansas, Univ. Arkansas Agric. Exper. Sta. Bull. 258: 66).—Mark Ports, Dept. Biol. Sci., Fort Hays State Univ., Hays, Kansas 67601, 4 June 1979.

Caspian Tern in Cimarron County, Oklahoma.—At about 1630 on 1 May 1978—weather wintry; sky overcast; northerly winds at 25-40 kph (15-18 miles per hour); air temperature about 6°C. (41°F.) — Ronald Freeman and I spotted a large tern 4.8 kilometers (about 3 miles) south and 0.8 kilometers (½ mile) west of Keyes. Cimarron County, far western Oklahoma. At first we thought the bird was a gull, but a second look proved it to be a large tern. The fluid, oarlike wingbeats, short, slightly forked tail, large red bill, and black cap declared it to be an adult Caspian Tern (Sterna caspia), a species not heretofore reported from anywhere in the Oklahoma Panhandle (Sutton, 1967, Oklahoma birds, Univ. Oklahoma Press, Norman, p. 226; 1974, Check-list of Oklahoma birds, Stovall Mus. Sci. & Hist., Univ. Oklahoma, p. 19). The redness and bigness of the bill convinced us that the bird could not be a Royal Tern (S. maxima) or an Elegant Tern (S. elegans), a statement that seems fully warranted here in view of the fact that at least four bird species of ocean coasts the Laughing Gull (Larus atricilla), Brown Pelican (Pelecanus occidentalis), Magnificent Frigatebird (Fregata magnificens), and Great Frigatebird (F. minor) — have all been taken in Oklahoma.-Mark E. Byard, Oklahoma Dept. Wildlife Conservation, 504 Foster, Ponca City, Oklahoma 74601, 18 April 1979.

Rufous Hummingbird again in Tulsa.—From 29 October to 3 December 1978 a Rufous Hummingbird (Selasphorus rufus) spent much of its time at the residence of Orval Day and his wife Virginia in the southeastern part of Tulsa, Tulsa County, northeastern Oklahoma. During the first part of this period the weather was mild. On November, however, the air temperature ranged from a high of 85° F. at mid-day to low of 32° at night, and from then on a downward trend continued, culminating in a high of 32° and low of 22° on 3 December. The bird often visited a nectar-feeder hanging at the edge of the patio roof. There were no flowers for it to visit in the yard, but rom time to time it obtained insects or other animal food at various places away rom the feeder.

Thirty-four members of the Tulsa Audubon Society saw the bird. Several persons

photographed it. I first saw it on 30 October, on which date Sally Campbell was with me. It was so close to us that day that we could not use our binoculars in scrutinizing it. It was metallic green on its back and on the top of its head. Its tail was rufous at the base and white at the corners, but dark otherwise, with a hint of green on the middle feathers. Its underparts were white save for rows of dark spots on the throat and a strong suffusion of rufous on the flanks.

On 5 November, Deloris Isted and her husband Desmond watched it and a second hummingbird, the latter a larger bird that appeared to have a slightly sturdier, more down-curved bill than that of the Rufous. Identification of this second hummer must remain moot, but those who saw it well considered it too big for a Rubythroat (Archilochus colubris), and a shining patch of red on its upper throat suggested that it might be a molting immature male Anna's Hummingbird (Calypte anna), a species known to have visited Tulsa from the late summer of 1975 to 11 January 1976 (see Keating, 1976, Bull. Oklahoma Orn. Soc., 9: 25-28).

On 10 November, Eleanor Sieg and I watched both the Rufous and the larger hummer for some time. When we first saw the Rufous it was flying from a big magnolia tree in a neighbor's yard to a tall hackberry in the Day yard. Flashing back and forth across the hackberry's trunk, it seemed to be finding something edible on or close to the bark. After visiting the feeder briefly, it disappeared for about half an hour, during which time the larger bird flew in, alighted on a utility wire at the back of the yard, and looked apprehensively this way and that. Presently it visited the feeder for a short time, then flew to a low wire not far away, alighting with back toward us. As it preened, a noticeable tuft of body plumage appeared above each folded wing. When the Rufous returned to the yard it did not visit the feeder while the larger hummer was close by.



RUFOUS HUMMINGBIRD

Photographed by Wally Whaling at the Oreal Day residence on East 17th Street in Tulsa, Oklahoma, on 31 October 1978, The bird, as pictured here, is close to actual size.

On 13 November, Lois Rodgers and I watched for the two hummers. The Rufous visited the feeder occasionally that day, but spent much time catching tiny insects among the lower branches of the big magnolia above referred to. One of two hummingbirds that chased each other about the yard for a time might have been the Rufous. Neither of the two was conspicuously larger than the other. Both of them could have been Rubythroats, though the date is late for that species, and both could have been Rufous Hummingbirds. We simply could not identify them to our satisfaction.

Between 1415 and 1505 on 1 December (a bright day), I had fine looks at the Rufous as it perched among shrubbery not far from the feeder. Especially noteworthy was the strongly rufescent tone of the flanks and under tail coverts. When the bird turned its head while preening, the brilliance of scattered iridescent scarlet-orange spots on the throat was striking.

Selasphorus rufus was first seen in Tulsa on 26, 27, and 28 July 1960 by Anne Reynolds et al. On 28 November 1970, Linnie Davis saw one. From the last week in August 1971 to 12 January 1972, one was seen repeatedly at the Upton Hudson residence in the southeastern part of the city (see Tomer, 1972, Bull. Oklahoma Orn. Soc., 5: 20). From what I have reported above concerning the species' occurrence in Tulsa in 1978, it would appear that the Rufous Hummingbird is to be looked for in northeastern Oklahoma, if not in the state as a whole, in late summer and fall.—Elizabeth Hayes, 5307 East 27th Place, Tulsa, Oklahoma 74114, 4 June 1979.

Pileated Woodpecker sighted in Oklahoma County, Oklahoma.—On 1 June 1979, at about 0915, a male Pileated Woodpecker (*Dryocopus pileatus*) visited our yard in the northeastern part of Oklahoma County, central Oklahoma. Our place is in a wooded area, the trees being mature blackjack and post oaks chiefly. The handsome bird stayed in the yard for about five minutes, giving me an excellent look at its brilliant red crest and moustachial streak, then flew off southward.

Dryocopus pileatus has heretofore been seen in Oklahoma County on only two occasions — on 22 January 1955 by David Clark (Griffing, 1955, Fifty rare birds from the Oklahoma City area, p. 14) and on 20 December 1969 by J. G. Newell et al. (1970, Audubon Field Notes, 24: 369). There is no record of the species' breeding in the county, so far as I know.—Nancy DeVore, Route 3, Box 218-P. Edmond. Oklahoma 73034, 22 June 1979.

Late date for nesting of Scissortail in Oklahoma.—At about 12:45 a.m. on 8 August 1978, while Jerry Overton and I were hunting bullfrogs at a farm pond 3 miles north and 2 miles west of Cookietown, Cotton County, southwestern Oklahoma, we happened upon the nest of a Scissor-tailed Flycatcher (*Muscivora forficata*) 5 feet 8 inches up in a large willow near the water's edge. The female Scissortail remained on the nest until I touched her, whereupon she flew off, revealing three very small chicks whose upperparts were sparsely covered with pale gray down. Even when I disturbed the chicks, their eyes did not open, so I judged them to be not more than two or three days old. I also suspected—in view of the lateness of the date—that they were a second brood for the season (see Sutton, 1967, Oklahoma birds, Univ. Oklahoma Press, Norman, p. 333).

The latest date heretofore on record for the nesting of the Scissortail in Oklahoma is 7 August (Sutton, *loc. cit.*). On 7 August in 1953 and again in 1955, Paul F. Nighswonger banded nestlings in Woods County in the northwestern part of the main body of the state. According to Fitch (1950, Auk, 67: 158-59), the "average incubation period" for three Scissortail clutches observed by him in southern Texas was 14 days, and the fledging period at the same nests, 14 or 15 days. The three Cotton County nestlings that I examined on 8 August were far too small for banding so they must have hatched much later than those banded by Nighswonger on 7 August.—Jack D. Tyler, Dept. of Biology, Cameron University, Lawton, Oklahoma 73505, 20 August 1978.

Breeding of Tree Swallow in Cimarron County, Oklahoma.—On 28 June 1979, J. Brooks Parkhill, his wife Thula, John S. Shackford, Henry Walter, and I drove to Cimarron County, at the west end of the Oklahoma Panhandle, to look for birds. The following day (29 June) we spent considerable time at Lake Etling in Black Mesa State Park. The water there had been drawn down a good deal, this according to the caretakers - to kill the cattail growth that was choking the lake. Cliff Swallows (Petrochelidon pyrrhonota) were abundant. We saw a few Barn Swallows (Hirundo rustica). Especially exciting, however, was a pair of Tree Swallows (Iridoprocne bicolor) which were feeding young in the nest. They were entering an old woodpecker hole well above water in one of several drowned cottonwood trees standing in the lake. Insect food was readily obtainable. The parent birds made only short swings around the dead trees in obtaining enough for another trip to the nest. Twice we saw a parent leave the nest hole with a fecal sac, fly with it for several yards, and drop it in the water. We watched the pair for over half an hour. Our identification was certain: there was no white back of or above the eye in either parent bird. Nor was there the slightest question in our minds as to what the birds were doing.

Iridoprocne bicolor has not been known to breed anywhere in Oklahoma. According to the Sutton summary of records at the University of Oklahoma Bird Range, the species has not heretofore even been seen in the state between 26 May and 27 July. On 26 May 1964, V. J. Vacin and I saw a Tree Swallow in Woodward County at the Fort Supply Reservoir dam (1964, Audubon Field Notes, 18: 465). On 27 July 1849, Samuel W. Woodhouse collected a female Tree Swallow in Mayes County, northeastern Oklahoma (Tomer, 1974, Bull. Oklahoma Orn. Soc., 7: 28, 53).—John G. Newell, 4129 N. Everest. Oklahoma City. Oklahoma 73111, 9 July 1979.

Blue Jay predation on paper wasp larvae.—On or about 28 June 1978, at an apartment house on West Brooks Street in Norman, Cleveland County, central Oklahoma, I watched a Blue Jay ('yanocitta cristata') busily searching for food under the eaves. The bird was so engrossed that I was able to approach it to within a few meters. Perched on the edge of the rain trough, it would hang over, peering intently up under the eaves. Several times it dropped from the trough, flew up under the eaves, and hovered there briefly. Each time it returned to the trough a wasp followed it, whereupon the jay would catch the insect in its bill. I assumed that the jay was eating the wasps, since I did not see them fly away nor was it obvious that the jay was dropping them. After catching several wasps in this way, the jay hovered under the eaves for some time, finally pulling a wasp nest free and flying with it to a tree nearby. Here, holding the nest with one foot, it picked the larvae from their cells and ate them. I managed to scare the jay into dropping the nest, which I identified as that of one of the paper wasps of the genus Polistes. It was about 5 centimeters (2 inchesin diameter.

Never having observed such behavior, I could not helping wondering how the jay had acquired it. Had the jay learned that some paper wasp nests contained food and that food-containing nests were sometimes easy enough to pull free in spring when unguarded by adult wasps? Entomologists tell us that the only paper wasps that overwinter are the queen mothers; that in spring each nest is guarded by a singlequeen; and that, if the queen goes foraging, the nest is left without protection sometimes for a considerable period (Borror and DeLong, 1964, An Introduction to the Study of Insects, Holt, Rhinehart and Winston, p. 581). Any jay accustomed to pulling unprotected wasp nests free on a warm day in March or April has a more complete problem to solve at such a nest in late June.

The Summer Tanager (Piranga rubra) also is known to eat the larvae of Polistes (Bent, 1958, U. S. Natl. Mus. Bull. 211: 501). And John James Audubon pictured the American Redstart (Setophaga ruticilla) investigating a nest of paper wasps.—William D. Shepard, Dept. of Zoology, University of Oklahoma, Norman, Oillahoma 73019, 15 April 1979.