

Nice, M.M. 1931. The birds of Oklahoma, Rev. ed. Publ. Univ. Oklahoma Biol. Surv. 3(1):1-224.

Peterjohn, B. 1995. Annual Report, 1994, Vol. 5, No. 1. The North American Breeding Bird Survey, federal agency perspective. U. S. Fish & Wildl. Serv., Laurel, Maryland.

Robbins, C.S., D. Bystrak, and P.H. Geissler. 1986. The Breeding Bird Survey: its first fifteen years, 1965-1979. U.S. Dept. Int. Fish & Wildl. Serv. Resource Publ. No. 157.

Root, T. 1988. Atlas of wintering North American birds: an analysis of Christmas Bird Count data. Univ. Chicago Press, Chicago, Illinois.

Sutton, G.M. 1967. Oklahoma birds. Univ. Oklahoma Press, Norman. 674 pp.

Terres, J.K. 1980. The Audubon Society encyclopedia of North American birds. Alfred A. Knopf, New York, NY.

Tramer, E.J. 1974. An analysis of the species density of United States landbirds during the winter using the 1971 Christmas Bird Count. Amer. Birds 28:563-567.

Tyler, J.D. 1992. Nesting ecology of the Loggerhead Shrike in southwestern Oklahoma. Wilson Bull. 104:95-104.

_____. 1994. Average arrival and departure dates for some breeding birds in southwest Oklahoma, 1938-1992. Proc. Oklahoma Acad. Sci. 74:47-48.

United States Breeding Bird Survey. 1995. Oklahoma species summary report, 1967-1994. Migratory Bird Division, U.S. Fish & Wildl. Serv., Laurel, Maryland.

Verner, J. 1985. Assessment of counting techniques. Current Ornithol. 2:247-302.

GENERAL NOTES

Fregata minor, Great Frigatebird, in Oklahoma.—Victor J. Heller and John S. Barclay (Bull. Oklahoma Ornithol. Soc. 10:9-10, 1977) provisionally identified a wild bird specimen captured 3 November 1975 in Perry, Noble County, Oklahoma, in these words: "We suspect that our bird is a Great Frigatebird (*Fregata minor*), a species that has never been taken in North America, but final identification must await further investigation. Although Heller and Barclay were apparently unsure of their identification of this frigatebird, it was included in the American Ornithologists' Union's Check-List of North American birds (1983, 6th ed., pp. 41-42) as the only North American record of *F. minor*. There is a subsequent sight record with photograph of a Great Frigatebird from California (Howell, Steve N.G., 1994, Birding 28 (6):402).

In January 1990, Hoffman saw the specimen at the Oklahoma State University Museum, and asked if any further study of this specimen had been made in the 15 years since it was found. To our knowledge, no additional information on the

frigatebird had come to light during this time. Therefore, on 19 January 1990, Hoffman, Stephen H. Metz and Tomer measured and photographed the mounted specimen in an attempt to resolve the ambiguity associated with this record. The measurements and photographs of the frigatebird, (Oklahoma State University Museum specimen no. 1770), were sent to Clapp on 28 February 1990 and he compared them with specimens of Great and Magnificent frigatebirds in the United States National Museum of Natural History collection.

Three points of identification were found that indicated that the specimen was *F. minor*. First, the feathers of the back and those of its flank patches were a green iridescent color typical of *F. minor*, not purple as those of *F. magnificens*. Second, this apparent male specimen had conspicuously lighter alar bars, also characteristic of male *F. minor*. Finally, wing chord lengths of 14 *F. minor* males at the National Museum of Natural History ranged from 550-599 mm (mean: 578.9 mm), and 15 male *F. magnificens* measured from 591-633 mm (mean: 608.7 mm). The wing chord of the Oklahoma specimen was 546 mm as reported by Heller and Barclay and 570 mm as measured by Hoffman and Tomer after the bird was mounted. Thus, the specimen falls within the range expected for *F. minor* and its other characteristics are consistent with a later identification analysis of *Fregata* by Howell (*loc. cit.*). We conclude that the Heller and Barclay specimen is indeed *Fregata minor* and not *F. magnificens*.

These findings were presented at the 9 December 1990 meeting of the Oklahoma Bird Records Committee, which unanimously approved it as the first record of *F. minor* for the state. It remains the only known specimen for the continental United States.—John S. Tomer, 5911 East 46th Street, Tulsa, Oklahoma, 74135; Roger B. Clapp, Biological Resources Division, United States Geological Survey, National Museum of Natural History, Washington, D.C. 20560; and James C. Hoffman, 4859 South Braden Avenue, Apt. 4-K, Tulsa, Oklahoma 74135, 13 November 1996.

Sabine's Gull in the Oklahoma Panhandle opportunistically feeds on grasshoppers.—Early on the evening of 22 September 1996, as I traveled across the Oklahoma Panhandle on U.S. Hwy 64 in Cimarron and Texas counties, I encountered several temporary rain pools or playas. At one such spot in western Texas County, 12.8 km (8 mi) east of the Cimarron County line, a small gull was present, as well as various shorebirds and a few ducks. After a few minutes of observation, I was able to identify it as a Sabine's Gull (*Xema sabini*) by the distinctive black-white-gray wing pattern when it took flight, and as a juvenile by the dark tip of the slightly forked tail and the dark gray of the back, hind-neck, crown, and face. Two features differed from those shown in guides for an immature bird in winter (e.g., P.J. Grant, 1986, Gulls: A guide to identification, 2nd ed., Buteo Books, Vermillion, SD, pp. 129-133). There was more white on the head and face of this bird, and its lower mandible was not dark, but straw-colored. This species is almost wholly pelagic when away from its breeding grounds (Grant, 1986, *loc. cit.*), and is a rare fall migrant through Oklahoma. (Baumgartner, F.M., and A.M. Baumgartner, 1992, Oklahoma bird life, Univ. Oklahoma Press, Norman).

After determining the gull's identity, I studied its feeding behavior. On several occasions, it repeatedly stretched its wings and then rested on the ground near the pond for five to ten minutes. Then the gull began swimming rapidly about the pond, which was about 3.1 ha in size. Initially, it jabbed its bill sporadically at some food item on the water, then quickly swallowed it, but soon began to pick food

items off the scattered plant stalks protruding 15-20 cm above the water's surface. Moving closer, I saw that the bird was capturing insects resting on the plant stems. In a few cases they looked small, but they appeared to be mostly grasshoppers.

Using a 20-60X telescope, I was able to note the distinctive body shape of grasshoppers perched on stems before they were captured, or their long jointed legs as they were briefly held in the gull's bill. One jab of the beak was usually sufficient to knock a grasshopper into the water. With insect in bill, a vigorous side-to-side head shaking ensued, with the prey submerged until it was subdued. Only a quick swallowing movement or two was required to devour the grasshopper.

Although a juvenile, this bird seemed quite accomplished at feeding on insects that probably had taken refuge on the plant stalks from a recent deluge. It swam rapidly about the pond in search of further prey, walking quickly across areas where the water was too shallow to swim. I observed an estimated 20 to 30 such capture-feeding episodes from 1832 to 1948 CDT.

The next morning, I returned to find the gull still present, and observed it swimming actively about the pond from 0717 to 0835 CDT; sunrise was at 0735. Although it was using the same feeding technique, the gull was finding many fewer food items than on the day before. This was perhaps because of its own previous thoroughness, or possibly because the grasshoppers were not as active.

These observations are of interest because of the extreme contrast between the habitat involved and that which is typical for the species in fall migration, i.e., the offshore waters between the breeding grounds on the Arctic tundra and the oceanic wintering areas on the South Pacific and Atlantic oceans (Grant, 1986, *loc. cit.*) Its breeding habitat is described as "swampy areas of low-lying tundra..with grassy or tundra vegetation" (C. Harrison, 1982, *An atlas of the birds of the Western Palearctic*, Princeton Univ. Press, Princeton, NJ). Its food there consists of "small fishes, aquatic worms, insects, and larvae, and small crustaceans..." which are obtained "in the small ponds and pools on the tundra" (Bent, A.C., 1921, *Life histories of North American gulls and terns*, U.S. Natl. Mus. Bull. No. 113, Wash. D.C., pp. 191-196).

Contrary to my initial assumption, grasshoppers are not lacking from the natal range of this species in Arctic habitats. At least 19 species of grasshoppers occur in the far north, a number of which reach the Arctic Ocean in Alaska and northwestern Canada (V.R. Vickery and D.K.M. Kevan, 1987, *The grasshoppers, crickets, and related insects of Canada and adjacent regions*, Can. Agric. Res. Branch, Ottawa, Ontario). Thus, grasshoppers may be present in the vicinity of the gull's nesting grounds, and the feeding behavior described here might have had precedent in the bird's prior experiences in the Arctic. – W. Marvin Davis, 308 Lewis Lane, Oxford, Mississippi 38655, 17 October 1996.

THE BULLETIN, the official organ of the Oklahoma Ornithological Society, is published quarterly in March, June, September, and December, at Norman, Oklahoma. Subscription is by membership in the OOS: \$5 student, \$7.50 regular, \$10 family, \$15 or more sustaining, per year. Life membership \$125. Treasurer, Marty Kamp, 6422 Indianapolis PL., Tulsa, OK 74136. Editor, Jack D. Tyler, Department of Biology, Cameron University, Lawton, Oklahoma 73505, Associate Editors, John S. Shackford, 429 Oak Cliff Drive, Edmond, Oklahoma 73034, and Dan Reinking, Sutton Avian Research Center, P.O. Box 2007, Bartlesville, Oklahoma 74005. Questions regarding subscription, replacement copies, back issues or payment of dues should be directed to: Mickle Duggan, OOS Membership/Circulation Chairman, P.O. Box 65, Ada, Oklahoma 74821-0065. ISSN 0474-0750.