

## NOTES

**Banded Royal Terns in inland Florida.**—The Royal Tern (*Sterna maxima*) is a rare bird in inland Florida (Sprunt 1954). It is considered to be a vagrant in Alachua County (Austin and Hardy 1981), with only two records in 4 November 1950 and 17 January 1951. It is rare in fall and winter in Polk County (Geanangel 1980). Paul J. Fellers (in litt.) noted "only four Polk Co. records over the past 20 years of intensive birding by John Edscorn and myself, and more recently by Chuck Geanangel." Three of these Polk Co. records are of single birds seen at Lake Parker on 22 December 1973 (Agey 1974), 7 December 1974-26 January 1975 (J. B. Edscorn in Stevenson 1975), and 25 September 1976 (Edscorn 1977). The fourth record is of a single bird seen at Homeland phosphate slime pit on 26 October 1981 (P. J. Fellers, pers. comm.). Also, one record exists for the well-visited Zellwood muck farms (Orange Co.) of a single bird seen on 7 September 1968 by J. B. Edscorn, C. Edscorn, and H. B. Herbert (P. J. Fellers, pers. comm.). Van Velzen (1968) summarized the recoveries of Royal Terns banded as chicks in Lower Chesapeake Bay, Virginia, during 1964 and 1965. Seventeen of these Royal Terns, all immatures, were recovered in Florida from November through June, with 35 percent of them being recovered in January. All were from coastal localities with 11 records from the Atlantic coast (Volusia Co. to Key Largo, Monroe Co.), four records from the Gulf coast (Sarasota Co.) and two from the Dry Tortugas. I here report the recovery of two banded immature Royal Terns and two additional sight records from Highlands County, ca. 110 km from either coast, in interior south-central Florida.

The first tern (USFWS No. 724-00876) was captured by hand by Clement Latimer on 1 December 1978 1.5 km north of Lake Placid at Lake June-in-Winter. It died soon after capture. It had a short length of monofilament fishing line protruding from its mouth and a fish hook in its throat. The second tern (USFWS No. 644-44881) was found dead on 26 February 1979 6 km NW of Sebring on Lake Sebring by Zenon Hansen. The bird had been seen several days earlier by Hansen as it perched on his dock. The bird had a small hole, 6 mm in diameter and 10 mm deep, at the base of its upper mandible between its eye and nostril. Both birds had been banded as chicks the previous summer; the first on 23 June 1978 at Morgan Island near Cape Lookout, North Carolina, by John H. Buckalew; and the second on 1 July 1978 on the Delmarva peninsula on Metomkin Island, several km E of Accomac, Virginia, by John S. Weske. Death of terns by fishing line appears to be rather common. Of Van Velzen's (1968) 17 recoveries in Florida, 35 percent were listed as "entangled in fishing gear."

The terns were prepared as study skins and are deposited at the University of South Florida, Tampa. Both were females without fat. Weights were 318 g for the December bird (SRP 14) and 292 g for the February one (SRP 16). Measurements of the December and February terns, respectively, were as follows: Culmen-57.5, 62.0 mm; tarsus-33.8, 32.9 mm; wing chord-352, 349 mm. The tarsi and toes of the December bird were uniformly black with tan toe pads. However, the tarsi and toes of the February bird were black with bright yellow blotches. Some toe nails were black; some were white; and some were black and white. The yellow of their bills was similar. Buckley and Buckley (1970) described the wide range of color variation in the unfeathered parts and down

of Royal Tern chicks and speculated that it might play a role in individual recognition by parents of chicks in a creche. Apparently variation in leg and toe color persists well after the birds departure from their nesting area.

Both specimens were examined for molt, especially of the flight feathers. In *Sterna* terns new flight feathers are silvery-grey (Stresemann and Stresemann 1966) with a soft, velvet-like texture that contrasts with adjacent, older and worn feathers. The wing feathers of the December bird were all juvenal, except for a few tertials that were new and unworn. The wings showed little wear except for well-worn greater secondary coverts. Some distal patagial coverts were dark gray, the "shoulder-spot" of some immature terns. The tail feathers were all juvenal and quite worn except that the second pair from the center was new and unworn. The February bird had begun wing molt. On both wings primaries 1 and 2 and secondary 1 were new, full-length, and unworn while the rest of the remiges were worn, especially the distal primaries. Greater secondary coverts 6 and 13-18 were very worn while 1-5 and 7-12 were new and unworn. Based on a sample of six juvenile specimens (three from Florida) Stresemann and Stresemann (1966) predicted that the step-wise primary molt of Royal Terns in their second year "begins usually in February or early March." These two Florida specimens confirm their prediction.

More recently in Highlands Co., Robert Fernau and I saw a Royal Tern on 10 January 1982, 4.5 km S of Lake Placid town along the shore of Lake Placid, and on 29 March 1982 Jack Hailman saw a Royal Tern 3 km SW of Lake Placid on Lake June-in-Winter. These were the only two sightings of Royal Terns from the area during the winter of 1981-1982 despite my almost daily visits to a favorable gull-tern loafing area at Lake Placid, and each sighting occurred after periods of strong winds from the northwest and northeast respectively.

I thank Charles Geanangel, Paul J. Fellers, Robert W. Loftin, John S. Weske, and Glen E. Woolfenden for their helpful comments on an earlier draft of this note. Fellers kindly provided information on unpublished central Florida sightings. William B. Robertson, Jr., and Woolfenden provided access to a translation of Stresemann and Stresemann.

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