

**Least and Roseate tern nesting sites in the Florida Keys.**—The status of the Least Tern (*Sterna albifrons*) and the Roseate Tern (*Sterna dougallii*) have been matters of concern for a number of years (Fisk 1978a, Robertson 1978). The Least Tern nests on bare sand, usually along unstable beaches or on sandy or rocky sites cleared for development. Dowling (1973) described the adverse effects of human disruption and habitat loss on nesting success. Human development has also provided novel nesting sites, such as flat gravel-coated roofs. Such sites are not without their disadvantages including flooding and the difficulty chicks face in leaving their nest site (Fisk 1978b). The Roseate Tern is considered to be threatened in Florida owing to its low population size and reportedly poor nesting success (Robertson 1978).

The nesting status of the two species in the Florida Keys has been little documented except on the Dry Tortugas. There Least Terns have nested since at least the 1850's (Robertson 1964) peaking in the early 1900's at perhaps 1,000 birds (Dutcher 1908). Nesting ceased in the 1940's, beginning again in 1973 (Woolfenden and Robertson 1974). Roseate Terns have nested on the Dry Tortugas since the early 1900's (Robertson 1964).

Because of the importance of historical documentation, in this note we attempt to summarize information on nesting sites and numbers in the Florida Keys, through the 1970's, especially that resulting from a complete census we undertook in 1976.

Simpson (1920) reported Least Terns nesting on Sand Key (now Sandy Bank) near Key West. Dowling (1973) censused terns along the Florida Keys in 1973. He found Least Terns nesting at the following locations: Key Largo, 200 pairs; Plantation Key, 15 pairs; Long Key, 20 pairs; Big Pine Key, 50 pairs; Cudjoe Key, 200 pairs; Sugarloaf Key, 25 pairs; Geiger Key, 60 pairs. All of these sites were on spoil from excavation of the coral limestone.

Our censuses were undertaken in spring and summer of 1976 in order to inventory more thoroughly the area covered by Dowling. Our censuses were conducted on May 17-23 (I), June 2 (II), June 8 (III), June 11 (IV), June 15 (V), June 25 (VI), June 26 (VII), July 6 (VIII). By mid August nesting was completed at all sites. The following are the sites, nests, and census on which we recorded Least Terns nesting: Key Largo Hammer Point, 1 I; Key Largo Lake Surprise Estates, 6 I, 6 VII; Key Largo Port Largo Estates 47 I, 5 VII; Key Largo Crocodile Lake 5 IV, 6 VI; Key Largo Rock Harbor 35 VII; Key Largo dump 30 VII; Plantation Key elementary school 7 IV; Plantation Key Port Antigua 35 IV; Indian Key fill 29 V, 10 VII; Crawl Key 9 III; Grassy Key 90 III, 190 VII; Venetian Shores 6 III; Bahia Honda Key 42 I, 10 VI; West Summerland Key 9 I; Big Pine Key Newfoundland Harbor Estates 27 I; Big Pine Key Pine Channel Estates 27 I, 32 VII; Big Pine Key Doctors Arms 65 VII; Ramrod Key 19 I, 35 VII; Big Torch Key 35 VII; Cudjoe Key 27 I, 15 VII; Noname Key 6 VII; Sugarloaf Key 120 VII; Saddlebunch Keys 17 I; Big Coppitt Key 55 VII; Geiger Key 86 I; Boca Chica Air Station 42 I, 45 VII; Boca Chica—Stock Island bridge 35 VII; Key West tank farm island 163 II; Key West airport 13 VII.

The known history of Roseate Terns nesting on the Florida Keys was summarized by Robertson (1978). He reported nesting or possible nesting at islands off Seven-mile Bridge in 1962, Crawl Key in 1962 and 1964, spoil islands in Key West Harbor in 1964, 1966?, and 1973, and Molasses Reef Rocks in 1972.

We found Roseate Terns nesting at the following sites: Indian Key fill 42 V, 2 VII; Grassy Key 13 III, 65 VII; Key West tank farm island 109 II, 263 VII.

It is not possible to estimate the total nesting population of Least Terns because some sites may have been missed, and renesting probably occurred through the period of the census. Our minimum estimate is based on the 770 nests found on 26 June, which indicated the population included over 1400 adults. Our June totals for the Roseate Tern indicated 370 nests, or at least 740 adults, as of the mid 1970's. We have no information that any similarly thorough, season-long censuses have been conducted more recently.

All of the nesting sites we found were artificial, having been created by the deposition of dredge spoil. Management of these species would require the annual discovery and protection of their chosen sites. This effort would be made especially difficult by the transient nature of most of the construction sites used by Least Terns. It is feasible, however, for suitable sites to be constructed and maintained on the several parks and wildlife refuges in the area. It is likely that the terns would use these sites, thereby assuring the continued nesting of these terns on the Florida Keys.

We thank Gary Davis and W. B. Robertson, Jr. for assistance in one of the censuses. This study was funded by the U. S. Fish and Wildlife Service.

#### LITERATURE CITED

- DOWLING, R. L. 1973. A preliminary nesting survey of Least Terns and Black Skimmers in the east. *Amer. Birds*. 27: 946-949.
- DUTCHER, W. 1908. Reservation news: Tortugas, Florida. *Bird-Lore* 10: 186-192.
- FISK, E. J. 1978a. Least Tern. Pp. 40-43 in *Rare and endangered biota of Florida*, Vol. 2, *Birds*. (H. W. Kale II, ed.). Tallahassee, Florida: University Presses of Florida.
- FISK, E. J. 1978b. Roof-nesting terns, skimmers, and plovers in Florida. *Fla. Field Nat.* 6: 1-8.
- ROBERTSON, W. B. JR. 1964. The terns of the Dry Tortugas. *Bull. Fla. State Mus.* 8.
- ROBERTSON, W. B. JR. 1978. Roseate Tern. Pp. 39-40 in *Rare and endangered biota of Florida*, Vol. 2, *Birds*. (H. W. Kale II, ed.). Tallahassee, Florida: University Presses of Florida.
- SIMPSON, C. T. 1920. In *lower Florida wilds*. New York: G. P. Putnam's Sons.
- WOOLFENDEN, G. E. AND W. B. ROBERTSON, JR. 1974. Least Terns nest on the Dry Tortugas. *Fla. Field Nat.* 2: 19-20.

**James A. Kushlan**, Department of Biological Sciences, East Texas State University, Commerce Texas 75428 and **Deborah A. White**, 8520 SW 53 Street, Miami, Florida.  
Florida Field Naturalist 13: 98-99.

**Green-backed Herons feeding on decaying acorns.**—In March and April 1972 I daily visited Lake Sylvan, Winter Park, Orlando, Orange County, Florida. Sometimes one or two Green-backed Herons (*Butorides striatus*) used the horizontal boughs of live oaks (*Quercus virginianus*) near the lake to roost during the day, for an hour or more on occasions. However, they would individually fly down to feed, during which I noticed they sporadically fed on the decaying and fairly soft acorns that had fallen from the oak trees. When a Green-backed Heron found some of these among the short grass they were taken to the water's edge and forcefully softened and broken open with bill-jabbing movements. Pieces were then swallowed. Those found in shallow water were also taken to the shore line and summarily dealt with as described. On a single occasion a Green-backed Heron was seen to pick over decomposed remains of a piece of grapefruit, some which was eaten.

Neither Palmer (1962, *Handbook of North American birds*, Vol. 1. New Haven, Conn.: Yale Univ. Press) nor Hancock and Kushlan (1984, *The herons handbook*. New York: Harper & Row) include the type of food I have mentioned in the diet of the Green-backed Heron.—**Bernard King** Gull Cry 9 Park Road, Newlyn, Penzance. TR18 5DZ, Cornwall, England.