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GULL-BILLED TERN FLEDGED ON A ROOF IN NORTHWEST FLORIDA

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Several species of larids, including Least Terns (*Sterna antillarum*), Roseate Terns (*S. dougallii*), and Black Skimmers (*Rynchops niger*), have fledged young on roofs in Florida (Greene and Kale 1976, Fisk 1978, Hovis and Robson 1989, Gore 1991, Gore and Kinnison 1991, Cimbaro 1993, Coburn 1995, Smith 1996, Hovis and Gore 1997, Zambrano et al. 1997, Bolte and Cobb 1998). Additionally Royal Terns (*S. maxima*) (Toland and Gilbert 1987) and Gull-billed Terns (*S. nilotica*) (Coburn 1996) have unsuccessfully attempted roof-nesting in this state. This note reports the successful fledging of a Gull-billed Tern chick from a roof in Panama City, Florida.

In 1996, we monitored a colony of Black Skimmers on the roof of the Sears department store, Panama City, Bay County (30°11.1'N, 85°38.9'W). The 1.0 ha, 10-m high roof was covered with approx. 1 to 2 cm of light-brown gravel of 0.5 to 1.0 cm diameter. On 2 July, 17 Black Skimmer nests were distributed over 75 percent of the roof. One adult Gull-billed Tern was on a scrape with two undamaged eggs and one slightly dented (<0.5 cm) egg in the middle of the roof near a rubber partition. The adult tern flushed from the nest on our approach. We also heard two Gull-billed Terns calling, saw three flying, and observed one mobile chick. Although we found no other Gull-billed Tern nests, we cannot say if the chick was from the same nest as that with eggs. On 12 July, an adult Gull-billed Tern was standing by the nest, one was circling overhead, and three eggs were still present. The chick appeared about ready to fledge (Fig. 1). The lower mandible on the chick was predominantly orange, the upper mandible black, and the legs a dirty orange-pink. On 17 July, one adult was standing by the three eggs, of which one had a crack approximately 1 cm in length. The fledgling was flying over the roof, suggesting it was at least 28 to 35 days old (Clapp et al. 1983, Parnell et al. 1995). On 24 July, all three eggs had cracks >1 cm long, an adult Gull-billed Tern was observed flying, and the chick was not seen.

Gull-billed Terns have produced young on roofs in Texas and Louisiana (Purrington 1990, Smalley et al. 1991), on causeways (Smith et al. 1993), dredged-material islands, and disturbed inland habitats (e.g. phosphate mines) (Layne et al. 1977, Smith and Alvear 1997). To our knowledge, however, this is the first Gull-billed tern chick to fledge from a roof in Florida. The roof nesting sites in Bay County reported here and by Coburn (1996) were 3.8 and 2.5 km, respectively, from the bay and even closer to small bayous. In 1997, we returned and saw an adult flying over the Sears roof on 9 July, but no nests were located during the summer. As in previous reports from northwest Florida, Gull-billed Terns show a strong affinity for nesting with Black Skimmers (Smith et al. 1993, Smith and Gore 1996, Coburn 1996). Since Black Skimmers have continued to use roofs in recent years (Hovis and Gore 1997, Zambrano et al. 1997, Bolte et al. 1998) perhaps the Gull-billed Tern will also continue to be found on roofs.

Three Gull-billed Tern eggs probably cracked on the gravel substrate. Gore (1987) and Coburn (1995) noted that relatively large birds like the Black Skimmer are more likely to crack their eggs on roofs than the smaller Least Tern, because the thin layer of gravel prevents skimmers from making a scrape deep enough to support the weight of



Figure 1. Gull-Billed Tern chick, estimated 23-30 days old, at Sears Roof, Panama City, Bay County, Florida, 12 July 1996.

the incubating adult (Fisk 1978). On rooftops, perhaps eggs of Gull-billed Terns, which are intermediate in size to Least Terns and Black Skimmers, will crack more often than eggs of Least Terns but less often than Black Skimmers. In order to understand what steps may be taken to avoid excessive egg loss on roofs, studies of the effect of substrate type, color and gravel depth on reproductive success should continue as proposed by Coburn (1995), Coburn et al. (1997), and Bolte and Cobb (1998). Future observations of nesting on artificial sites should report substrate depth, substrate size and color, and nest height above ground.

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