

NOTES

FIRST SOOTY TERN NEST IN THE CONTIGUOUS WESTERN UNITED STATES

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During regular surveys of tern colonies at the Western Salt Works in southern San Diego Bay, John Konecny and I discovered a single Sooty Tern (*Sterna fuscata*) nest with one egg on a dike on 3 June 1997. This constitutes the first nesting record of this species for California and for the mainland western United States. The nest was preceded by a spate of sightings at this location starting in 1996. The two adults suffered predation, apparently by a Peregrine Falcon (*Falco peregrinus*), within one week of the nest's discovery. The carcasses of the adults and the egg were deposited at the San Diego Natural History Museum, furnishing California's first Sooty Tern specimens (SDNHM 49807, egg and female; 49966, male).

The Western Salt Works is an industrial salt-production facility composed of numerous shallow evaporation ponds surrounded by narrow earthen dikes approximately 2–20 meters wide, located at the extreme southern end of San Diego Bay, San Diego Co., California. Its combination of interspersed foliage and bare ground, nearby foraging areas, and sheltered waters makes it an excellent site for nesting terns, skimmers, and shorebirds. The U.S. Fish and Wildlife Service has been monitoring the colonies at this site in recent years with biweekly visits throughout the breeding season. Other tern species known to nest at this site are the Caspian (*Sterna caspia*), Royal (*S. maxima*), Elegant (*S. elegans*), Forster's (*S. forsteri*), Least (*S. antillarum*), and Gull-billed (*S. nilotica*).

The Sooty Tern is a relatively recent addition to California's avifauna, with the first accepted record in 1982 (Webster et al. 1990). In 1995, this species was noted throughout the summer at Bolsa Chica, Orange Co. (Hamilton and Willick 1996). The nesting colonies nearest southern California are off Baja California at Las Rocas Alijos and in the Hawaiian Islands (Harrison 1983, Pitman 1985). In 1996, Sooty Terns (a pair) were first seen at Western Salt Works by John Konecny and others. Also during that year, Tricia Campbell saw a pair copulating at the mouth of the Santa Margarita River, San Diego Co. In 1997, Bob James and I first noted a single bird at Western Salt on the morning of 15 April, and others saw it the morning of 16 April. No sightings were noted again until 30 May, when Konecny, others and I noted a pair roosting at the intersection of two dikes. On 3 June, Konecny, Eric Hein, and I found one adult Sooty Tern incubating a single egg at this site. The nest was just a scrape in the ground between two shrubs, with no nesting material lining it, located within a mixed colony of Forster's Terns, Least Terns, and Black Skimmers (*Rynchops niger*). The second adult was nowhere in sight, but Sooty Terns forage far out at sea and take 24-hour incubation shifts (Bent 1921). Upon our approach to the nest, the Sooty Tern did not engage in typical ternlike nest defense behavior (i.e. defecating, swooping, vocalizing, pecking) but rather walked 10 meters away to watch us. We examined the egg and nest, and Konecny photographed it and the adult. When we moved a short distance away, the bird resumed incubation despite the other terns' still trying to drive us away. On 6 June, Konecny and Susan Wynn found one adult still incubating the nest; the remains of the other adult were lying about 10 meters distant. The remains consisted only of the wings, pectoral girdle, sternum, and a severed head, surrounded by numerous body feathers. An immature male Peregrine Falcon had been noted in the area on several occasions during 1997, feeding on terns and shorebirds. On 10 June, Konecny and I found the remains of the second adult 10 meters from the nest; the egg

NOTES

was still in the scrape. The adult had the skin stripped from the head and neck, and the breast and internal organs had been removed. The specimens were deposited at the San Diego Natural History Museum, where Philip Unitt prepared the female as a flat skin (headless) and complete skeleton, the male as just the set of wings and severed head dried and stored in a plastic bag. Preparation of the egg by William T. Everrett proved that it was fertile (Unitt pers. comm.).

The subspecies identity of these birds can not be resolved in lack of a worldwide revision of the subspecies of the Sooty Tern. The San Diego female has a lightly gray-tinged lower belly and crissum like all Sooty Terns of the Pacific Ocean; nominate *fuscata* of the Atlantic has these areas essentially pure white. The supposed subspecies *crissalis* of the eastern Pacific has apparently never been compared adequately with *oahuensis* of the central Pacific and *nubilosa* of the western Pacific. In Cramp (1985), C. S. Roselaar wrote that its recognition is "perhaps not warranted."

The lack of defensive behavior by the incubating adults made them easy targets for predators. Bent (1921) noted that in large colonies Sooty Terns typically engage in aggressive defense behaviors, much like other terns. The lack of aggressive nest defense by solitary pairs and the species' prolonged incubation and fledging periods, exceeding those of other species in the colony that might afford some protection, may render the successful colonization of San Diego Bay by Sooty Terns unlikely.

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