

## NOTES

### FIRST NESTING OF BLACK SKIMMERS ON SAN FRANCISCO BAY

VALERIE L. LAYNE, ROBERT J. RICHMOND, and PETER J. METROPULOS, San Francisco Bay Bird Observatory, P. O. Box 247, Alviso, California 95002

Black Skimmers (*Rynchops niger*) have been observed on south San Francisco Bay during the nesting season since the late 1970s (Bailey et al. 1992, LeValley and Evens 1982, San Francisco Bay Bird Observatory unpubl. data, Winter and Manolis 1978, Yee et al. 1992), but nesting was never documented. They have nested in southern California since 1972, when five nests were discovered at the Salton Sea (McCaskie et al. 1974). The northernmost previously recorded nesting of the Black Skimmer in California was inland, at the Tulare Lake Basin in Kings County during the summer of 1986 (Erickson et al. 1986).

On 3 June 1994, we found two separate pairs of Black Skimmers on south San Francisco Bay. Layne found one pair roosting in a Forster's Tern (*Sterna forsteri*) nesting colony in Santa Clara County, and Richmond found the other pair making a nest scrape in a Forster's Tern nesting colony in Alameda County.

The Santa Clara County tern colony was on a dredge-spoil island in a salt evaporation pond on the San Francisco Bay National Wildlife Refuge. The nest island was sparsely vegetated, with approximately 45% cover. The dominant plant species was pickleweed (*Salicornia virginica*); there were also scattered patches of ice plant (*Mesembryanthemum nodiflorum*), Alkali Heath (*Frankenia salina*), saltgrass (*Distichlis spicata*), and Curly Dock (*Rumex crispus*). Other bird species nesting on islands in this pond were the American Avocet (*Recurvirostra americana*), Black-necked Stilt (*Himantopus mexicanus*), Gadwall (*Anas strepera*), and California Gull (*Larus californicus*). The female skimmer was once seen foraging on a nearby salt pond approximately 0.5 km from the nest island.

On 19 June the skimmers appeared to be incubating eggs. The nest scrape was on the southeast side of the island, sheltered from the prevailing northwest winds. On 6 July there were three downy young; five days later a fourth chick was seen. The number of chicks dwindled to one by 5 August. On 17 August, the young skimmer fledged and by 19 August was observed making short flights between islands in the pond. Both adults and the fledgling were last observed on 23 August; by 24 August all had left the area.

In 1995, a pair of Black Skimmers nested on a dredge-spoil island in a salt evaporator approximately 1.5 km north of the pond used in 1994. Both adults were frequently observed foraging on this pond and in Charleston Slough. On 2 August, the first chick was visible; a second chick was seen on 5 August. No other chicks were observed. On 12 August 1995 we banded one chick from this nest site (Figure 1). A U. S. Fish and Wildlife Service band was placed on the left leg, and a white plastic color band with a black number was placed on the right leg. The banded chick was seen flying on 6 September; the other chick was not observed flying and shortly thereafter disappeared. Subsequently the two adults and single chick moved to Charleston Slough, where they remained until December. The last reported sighting at Charleston Slough was of one adult and one immature bird on 18 December 1995 (M. Rogers pers. comm.).

The Alameda County tern colony was on artificial islands in a series of man-made freshwater to brackish ponds at the East Bay Regional Park District's Hayward

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Regional Shoreline. The skimmers nested on a sparsely vegetated island in a brackish pond. The dominant vegetation on this island was Spearscale (*Atriplex triangularis*). Other bird species nesting on islands in this pond were the Forster's Tern, Black-necked Stilt, American Avocet, Western Snowy Plover (*Charadrius alexandrinus nivosus*) and Killdeer (*Charadrius vociferus*). The adult skimmers were frequently seen foraging on a salt pond approximately 3 km from the nest island.

At Hayward, the skimmers continued scrape-making behavior through 8 June 1994. The final nest scrape was near the top of the island. On 9 June they appeared to be incubating eggs. They continued in the same way until 30 June, when the first chick was observed. On 2 July a second chick was seen, on 4 July a third, and on 7 July a fourth (Figure 2).

By 9 July the chicks had moved to a clump of Spearscale 1.5 to 3 m away from the nest scrape and were being fed whole fish. On 23 July only three chicks were present. An additional adult female Black Skimmer was on a nearby pond from this date until early August and was constantly harassed by the nesting pair. In the mid-afternoon on 31 July three chicks were evident, but several hours later only two could be seen. The missing chick was not seen later and may have fledged. On 2 August one of the other chicks fledged. It was seen through the next day but not later. The last chick fledged on 5 August. This fledgling and the pair of adults were last seen in the Baumberg salt ponds (just south of Hayward Regional Shoreline) on 26 August (L. Feeney pers. comm.).

In 1995, a pair of skimmers again nested at Hayward Regional Shoreline. On 26 May two pairs of adults were seen, one of the pairs occupying the approximate site of the 1994 nest scrape. On 10 June this pair was alone. The next day they moved



Figure 1. Valerie Layne preparing to band a Black Skimmer chick at the Santa Clara County nest site, August 1995.

Photo by Janet T. Hanson

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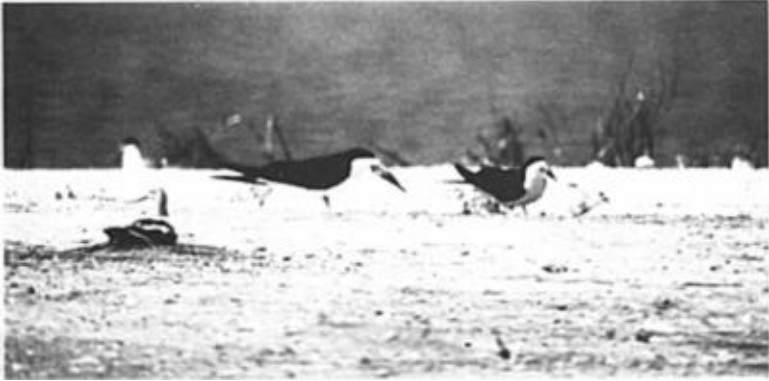


Figure 2. Black Skimmers with four downy chicks on an island at Hayward Regional Shoreline, July 1994.

*Photo by Phil Gordon*

approximately 30 m northeast to another island where they began a new nest scrape. The first chick was seen on 9 July, a second chick was seen on 12 July, a third chick was seen on 14 July and a fourth chick was seen on 19 July. On 29 July only three chicks remained and all three were banded that night. On 8 August two of the chicks had fledged, the third fledged three days later. All five birds were last seen together on 28 August; one immature bird was seen on 4 September.

We believe the pair nesting at Hayward to be the same pair that used the site in 1994, as the male had a U. S. Fish and Wildlife Service band on its right leg. Black Skimmers have been banded at several nesting colonies in southern California in recent years (1988-1995). Those banded in south San Diego Bay were banded on the left leg; those banded at Bolsa Chica in Orange County have been banded on the right leg (C. Collins pers. comm.), possibly indicating the colony of origin.

Black Skimmer populations in southern California have increased greatly in the past five years (C. Collins pers. comm.), and this further northward expansion of the species' breeding range is perhaps not unexpected.

We gratefully acknowledge the San Francisco Bay National Wildlife Refuge, East Bay Regional Park District, the city of Mountain View, and Cargill Salt Division for permission to conduct these observations. We also thank Janet Hanson, Sue Macias, Howard Cogswell, Mark Taylor, and Mike Mammoser for assistance in the field. Special thanks are due Charles Collins and Howard Cogswell for reviewing the manuscript and making many invaluable comments and suggestions.

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Accepted 26 April 1992

## NIGHT FEEDING OF BLACK SKIMMERS AT ESTERO PUNTA BANDA, BAJA CALIFORNIA, MEXICO

HORACIO DE LA CUEVA and GUILLERMO FERNÁNDEZ, Centro de Investigación Científica y de Educación Superior de Ensenada, Km. 107 Carretera Tijuana-Ensenada, Ensenada, Baja California, México (U.S. mailing address P. O. Box 434844, San Diego, California 92143-4844)

The Black Skimmer (*Rynchops niger*) feeds strictly in shallow inshore waters, alone or in small groups (Erwin 1977a). Its diet is narrow; in Virginia, silversides (*Menidia* spp.) and killifishes (*Fundulus* spp.) make up 90% of its prey (Erwin 1977b). Both its feeding method and efficiency have been reported (Irby 1951, Tomkins 1951, Zusi 1959), but until recently little was known about its nocturnal feeding behavior (Gochfeld and Burger 1994).

Black Skimmers have recently colonized southern California (McCaskie et al. 1974, Palacios and Alfaro 1992) and the Gulf of California (Massey and Palacios 1994). They are now not rare along the Baja California peninsular coast (Palacios and Alfaro 1992, Carmona et al. 1995).

We present here observations of night feeding of Black Skimmers in northwestern Baja California at Estero Punta Banda (31° 40'-31° 48' N, 116° 34'-116° 40' W), 13 km south of Ensenada, Baja California, México. On 19 January 1996 we caught six Black Skimmers (three at 20:00, one at 21:30, and two at 21:50) while netting Western Sandpipers (*Calidris mauri*). Captures were made during a new moon and a rising tide; high tide was 1.26 m at 20:49, with about a 40-minute lag between Punta Banda and the tide gauge at the port of Ensenada. We obtained from three birds a total of four Topsmelt (*Atherinops affinis*) (Rosales-Casián pers. comm.). One complete fish (length 17.1 cm) had to be extracted by hand from a gagging bird; three others were regurgitated and had no head but were otherwise undigested (partial lengths 9.5, 13.4, and 15.0 cm). These sizes are larger than most reported Black Skimmer prey (see Gochfeld and Burger 1994, Wilson 1995). Hamman and Rosales-Casián (1989) considered the Topsmelt to be a visitor to the estuary, entering at high tide and feeding at the mouth of the estuary, where the Black Skimmers were caught.

Up to 238 Black Skimmers have been recorded at Punta Banda and in the Ensenada area (October 1990), and banded birds from Bolsa Chica, Orange County, California, have been observed in the area (Palacios and Alfaro 1992). One Black Skimmer we captured had been banded as a chick on 19 July 1989 in San Diego, California (33° 40' N, 118° 10' W) (U.S. Fish and Wildlife Service band 634-54818). We counted 150 roosting Black Skimmers in the Estero Punta Banda on 13 January