

Pleistocene times in response to wetter and cooler climates. This paper offers evidence to suggest that data from modern bird distribution may reflect the operation of short-term climatic trends, occurring within the range of a few decades or less and in the absence of any obvious habitat change or other human influence.

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FIRST NESTING OF BLACK SKIMMER IN CALIFORNIA

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In 1971, McCaskie and Suffel (California Birds 2: 69, 1971) summarized the records of Black Skimmers (*Rynchops niger*) from the Salton Sea area of California, citing a record of five present at the mouth of the Whitewater River at the north end of the sea between 3 and 5 July 1968; two at Salton City along the west shore on 12 July 1969; and one collected at the mouth of the Whitewater River on 17 May 1970. In addition, a bird was reported seen at the mouth of the Santa Ana River along the coast of Orange County on 8 September 1962.

Black Skimmers again appeared on the Salton Sea in 1971; one was seen flying along the southeast shore on 3 July (E. A. Cardiff, pers. comm.), and two were present at the mouth of the Whitewater River between 31 July and 28 August (McCaskie, pers. observ.). Individuals also were reported along the coast, with one seen at Bodega Bay, Sonoma County, on 24 July (Amer. Birds 25:902, 1971); two off Point Pinos, Monterey County, on 26 September (Amer. Birds 26:115, 1972); one in Newport Bay, Orange County, on 6 September (Amer. Birds 26:121, 1972); and another on San Diego Bay near Imperial Beach, San Diego County, on 18 and 19 September (McCaskie, pers. observ.). The first two sightings were made by single observers, so cannot

be verified; however, the latter two were seen by numerous observers and the one on San Diego Bay was photographed.

In 1972 unprecedented numbers appeared on the Salton Sea. On 28 April, a lone adult was seen along the south shore of the sea, and two more were present at the mouth of the Whitewater River on 30 April. Along the south shore, a maximum of 19 were seen in August; most were present at the mouth of the New River, but individuals were also noted at Rock Hill and opposite Mullet Island. At the mouth of the Whitewater River, the number varied between two and four from May through August. No skimmers could be found on 24 September.

During the summer of 1972, five separate Black Skimmer nests were discovered at the south end of the Salton Sea. On 17 June we located a single nest with four eggs at the mouth of the New River. This nest was a deep depression in a line of dead twigs and other vegetation left on a mudbar by high water. In addition, there were about 20 pairs each of Gull-billed Terns (*Gelochelidon nilotica*) and Forster's Terns (*Sterna forsteri*) nesting in the immediate vicinity along with numerous Black-necked Stilts (*Himantopus mexicanus*). On 7 July this nest could not be found; the area containing the nest had been washed away by a violent storm. However, two additional nests were located.

One of these nests was on a small mud island at the southeastern corner of the sea opposite Mullet Island, and contained three eggs. The pair of adults at this nest had been defending a territory since 17 June, and we know nesting had not started on 25 June. We checked this pair weekly, and each time we saw one bird sitting on the nest and the other standing nearby. Upon our approach, the "guard" bird would fly at us and proceed to mob us. On 29 July no birds were at the nest site, and the eggs were gone.

The other nest found on 7 July was at the mouth of the New River about 150 ft from the site of the first nest. Like the first nest, it was a deep depression



FIGURE 1. Nesting site of Black Skimmers at the mouth of the New River at the south end of the Salton Sea. The arrow indicates the location of the nest found on 7 July 1972. One of the adults is incubating eggs. (Photo by Steven Liston)

in the dead vegetation, and contained four eggs (fig. 1). The pair was highly protective of the nest, both birds nearly hitting us on a number of occasions while we were near the nest. It was also interesting to see these birds perform a "broken wing act," flopping along the surface of the mud on their breasts or rolling on their sides with one wing extended. In addition, individuals would "skimi" the water back and forth near us, often passing between observers standing 40 ft apart. They often picked up and carried small twigs but we did not see them take fish.

The success of this nest was followed almost weekly through August. On 22 July two chicks and two eggs, one of which was "piping," were in the nest (fig. 2), and three chicks were found within 5 ft of the nest a week later. By 12 August, the chicks were able to run and were found 100 ft from the nest site. On this day, two of the chicks ran across



FIGURE 2. Eggs hatching on 22 July 1972. (Photo by William A. Rapley)



FIGURE 3. A 21-day-old chick photographed on 12 August 1972. (Photo by William A. Rapley)

the mud to the water upon our approach, while the other tried to hide by "freezing" in a depression (fig. 3). At this time the chicks were about half the size of the adults, and had brown feathers boldly edged with light buff. On 26 August all three young were flying with the adults, though they were obviously still begging for food. At this time they appeared about the same size as the adults, but had shorter bills—the lower mandible was about the same length as the upper. When on the ground, they looked mottled brown and white, but in flight the difference between the immatures and adults was not as striking since the upper wing was black with a white bar along the trailing edge of the secondaries.

On 22 July two additional nests were found at the mouth of the New River. One of these was only 10 ft from the successful nest, and contained four eggs. An adult had been seen sitting as if on a nest a week earlier, but the spot had not been checked for eggs in order to keep disturbance of the nesting birds down to a minimum. The other nest was about 100 ft away, and contained two eggs. A storm during the second week of August apparently forced water over the entire area, for the eggs of both nests were broken and washed out of the nests on 12 August.

There were also three reports of Black Skimmers from along the coast in 1972. A lone bird was found at Playa del Rey, Los Angeles County, on 24 April. It remained all day and was seen by a number of observers. Between one and four were present at the mouth of the Santa Clara River, Ventura County, between 6 August and 9 September; two were photographed on 6 August. A single bird at the south end of San Diego Bay near Imperial Beach on 7 September had been joined by three others on the 13th; three were still present at the end of September, and two remained through October to 11 November.

It is apparent that the West Coast population of Black Skimmers is expanding its range northward. It was only 4 years after the first pioneers were seen on the Salton Sea that individuals nested. Numbers reaching the Pacific Coast are increasing, and nesting there should be observed. It will be interesting to watch the occurrences of this species in the western United States during the coming years and to document its spread.

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