Black-vented Shearwater *Puffinus opisthomelas*

The ocean along San Diego County's coast is central to the nonbreeding range of the Black-vented Shearwater. At times, much of the population concentrates there, feeding on squid and fish. The Black-vented Shearwater nests in spring on islands around Baja California, principally Natividad, then migrates north, occurring off southern California primarily in fall and winter.

Photo by Brian L. Sullivan

Winter: The Black-vented is less pelagic than most other shearwaters, concentrating within 15 miles of the coast. Briggs et al. (1987), however, recorded it out to the Santa Rosa–Cortés Ridge, 100 miles offshore. In the mid to late 1970s, they found the species most consistently in a strip from San Diego north about 75 km—essentially, the San Diego County coastline—and their highest densities, up to 80 birds per square kilometer, off Oceanside. When sardines or squid are concentrated, however, the numbers of Black-vented Shearwaters can be far higher, for example, 10,000 off San Diego 19 October 1983 (D. W. Povey, AB 38:246, 1984). Often the birds can be seen (with aid of a scope) in large numbers from shore. Our largest such count during the atlas period was of 3850 off Torrey Pines State Reserve (N7) 23 December 2001 (S. Walens). All these counts, however, were eclipsed on 23 and 24 January 2004. On the morning of the 24th, about 85,000 were off La Jolla (N7; S. Walens) while 30,000–50,000, possibly part of the same flock, were off Cardiff (L7; P. A. Ginsburg). The spectacle was broadcast on television news. These flocks must have constituted a substantial fraction of the world's Black-vented Shearwaters, given that the population breeding in 1997 on Natividad Island was about 77,000 pairs, and that island supports 95% of the species' entire population (Keitt et al. 2003). An abundance of juvenile sardines, observed by local bait seiners, probably attracted the shearwaters that day (S. E. Smith, National Marine Fisheries Service).

Migration: In general, the Black-vented Shearwater is most abundant off southern California from September through December (Briggs et al. 1987). Its movements

vary, however, from year to year. Especially in years of El Niño, when the nesting of many seabirds around Baja California fails because of a shortage of food, Black-vented may arrive early, as in late July 1983, when hundreds were visible from La Jolla (G. McCaskie, AB 37:1026, 1983), and 7–9 July 1992, when 500 were in the same area (P. A. Ginsburg, AB 46:1177, 1992). Briggs et al. (1987) saw no Black-vented Shearwaters off southern California in April, but, on occasion, the species occurs in numbers in San Diego County even then, with up to 500 at La Jolla 7 April 2001 (S. Walens).

Conservation: Because the Black-vented Shearwater is so concentrated in both its nesting colony and pelagic range, it is especially vulnerable to disasters like oil spills that could kill most of the population quickly. Inclusion of Natividad Island in the Vizcaíno Biosphere Reserve and the recent eradication of cats, goats, and sheep from the island were major steps toward safeguarding the species. But many threats remain, such as the establishment of a human settlement on the island, the driving of vehicles through the colony, and the constant danger that other mammals could escape and establish themselves. Because the colony has been censused adequately only once, the population trend is still unknown (Keitt et al. 2003).

Veit et al. (1996) found the Black-vented Shearwater's numbers off southern California increasing in response to ocean warming, so the recent high numbers suggest continuation of a trend.