

CORMORANTS — FAMILY PHALACROCORACIDAE

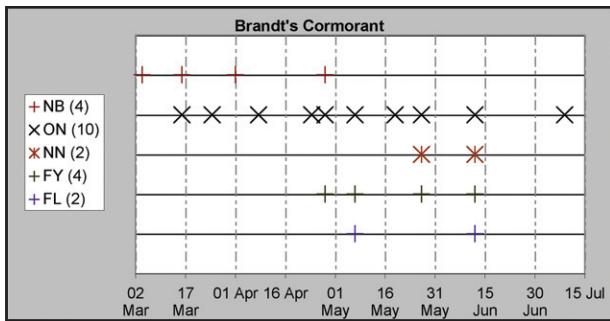
Brandt's Cormorant *Phalacrocorax penicillatus*

Brandt's Cormorant is a strictly maritime bird, common on the ocean and San Diego Bay but not entering Mission Bay or the coastal lagoons. It can be seen far offshore—having colonies on all the Channel Islands and Los Coronados Islands—but is much more numerous within sight of land. The birds must come to coastal rocks or bluffs daily to roost and dry their plumage. Brandt's Cormorant occurs in San Diego County most abundantly as a winter visitor, but some remain year round, and a few nest on cliff ledges at La Jolla.

Breeding distribution: Brandt's Cormorants have nested at least sporadically at La Jolla (P7), on cliffs at La Jolla Caves, since before 1933, when Michael (1935a) called the colony “long established.” A thorough survey of the colony requires that it be inspected from the water or from the air; not all nests are visible to an observer standing on the ground at the best vantage points near La Jolla Cove. In an aerial survey on 19 May 1997, McChesney et



Photo by Anthony Mercieca



al. (1998) photographed nine active nests. In 1999 and 2000, viewing the colony from shore, L. and M. Polinsky counted at least six active nests each year. In 2001, they counted at least five active nests on 28 April; on 9 July, a survey of the caves by kayak revealed 20 nests, though only two of these were still active. In 2002 there were at least two nests active by 24 February (K. L. Weaver); in 2003, there were three nests with chicks on 29 June (M. Sadowski). Many more birds remain around the colony than actually nest; counts at La Jolla in late spring and summer range up to 100 on 7 May 2000 (L. Polinsky).

Most Brandt's Cormorants nest on offshore islands, with some on Los Coronados Islands just south of the border (Jehl 1977). The small colony at La Jolla is the only one on the mainland of southern California south of Santa Barbara County (McChesney et al. 1998). See Williams (1942) for two photographs of the colony taken in 1938.

In 1993, 1994, and 1995, a pair attempted to nest on the degaussing pier in the navy's submarine base on the east side of Point Loma (S7). In 1993, the eggs hatched, but the nesting was interrupted when a minesweeper was degaussed and the disturbance kept the adults from coming to feed their chicks. The chicks were then taken into captivity and raised successfully, learning to dive and fish.

in a swimming pool and released back at the submarine base after fledging (M. F. Platter-Rieger, M. A. Faulkner). No chicks hatched from the attempts in 1994 and 1995.

From about 1985 to 1990 M. F. Platter-Rieger noted up to 25 Brandt's Cormorants on nests on the west side of Point Loma, just north of the sewage-treatment plant. Since the early 1990s, however, she has seen no activity at this location, and McChesney et al. (1998) noted only roosting birds there in 1997. Both visibility and access at this site controlled by the navy are difficult, so the cormorant's use of it is unclear.

Nonbreeding birds are seen through the summer along the San Diego County coast from La Jolla south (10 at Point Loma, S7, 17 June 1997, V. P. Johnson; up to 47 in north San Diego Bay 6 June 1995, K. L. Preston).

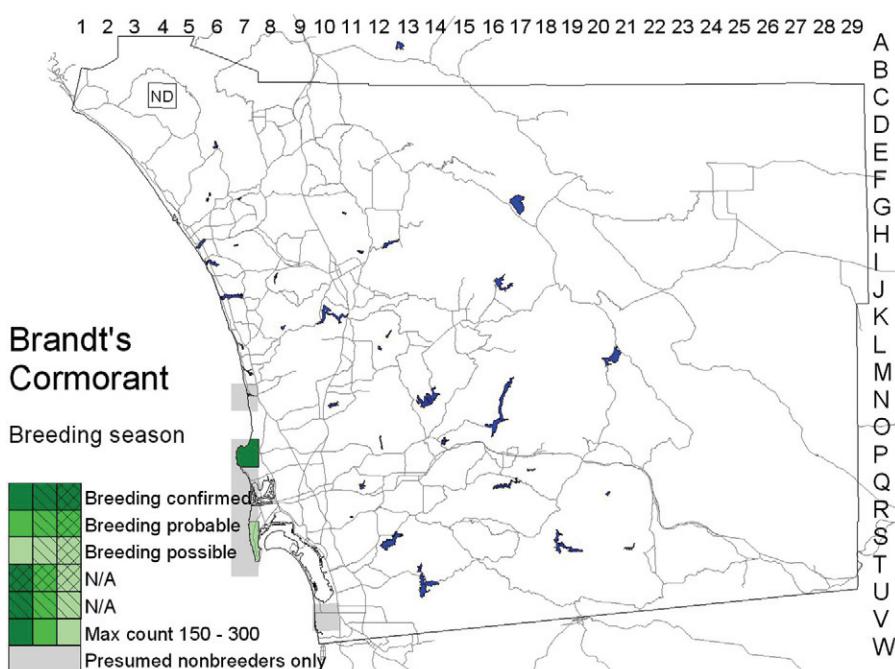
Nesting: At La Jolla, Brandt's Cormorants nest on ledges on cliffs or in caves. They have been seen carrying both sticks and kelp as nest material. Nesting on man-made structures, as at Point Loma, is rare in this species (McChesney et al. 1998).

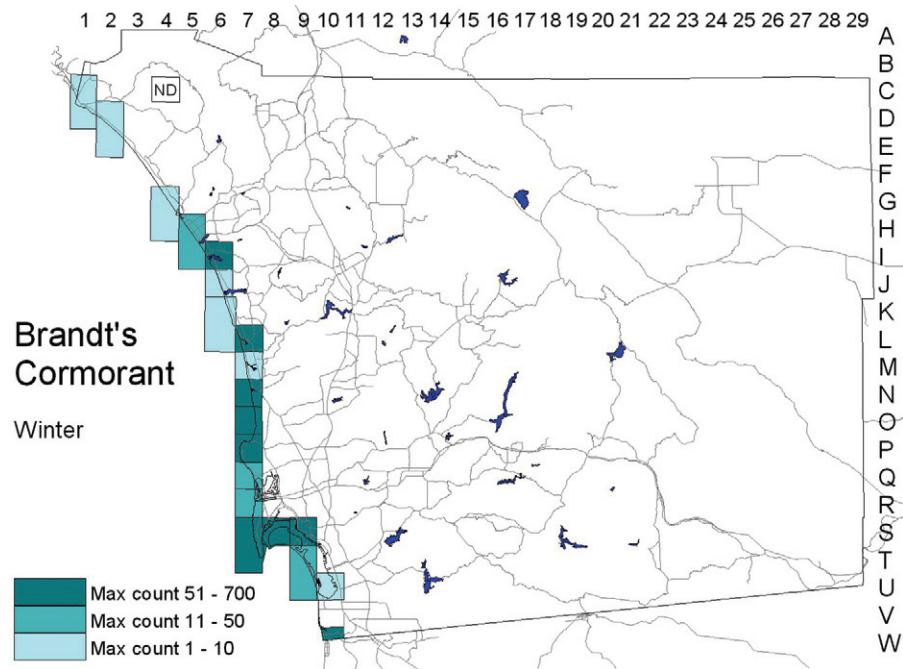
Brandt's Cormorant nesting at La Jolla is notably unsynchronized. Michael (1935a) reported some birds beginning nest building on 21 December, others as late as 12 April. From 1997 to 2001 our dates for occupied nests ranged from 24 February (2002) to 9 July (2001). In 1980, three young fledged from two nests on 10 September (W. T. Everett), suggesting egg laying as late as early June.

Migration: Brandt's Cormorant shifts north then south of its nesting colonies after the breeding season. In southern California it is much more numerous in winter than in summer (Briggs et al. 1987). In north San Diego Bay surveys from 1993 to 1995 (Mock et al. 1994, unpubl. data) found that numbers peaked in February and reached their nadir in July. In central San Diego Bay surveys from 1993 to 1994 found Brandt's Cormorant from December to March only (Manning 1995). Even at Torrey Pines

State Reserve, less than 5 miles from the colony at La Jolla, the species is recorded in spring no later than 4 May.

Winter: At this season Brandt's Cormorant occurs all along the coast of San Diego County. In the county's northern half, where there are fewer roost sites, it is less common. The maximum on any Oceanside Christmas bird count is 71 on 29 December 1996, but an exceptional 700 were off Agua Hedionda Lagoon (I6) 10 January 1999 (P. A. Ginsburg). In southern San Diego County numbers are highest at Torrey Pines State Reserve (N7/O7; 520 on 2 January 1998, S. E. Smith), La Jolla (300 on 28 January 2000, L. Polinsky), Point Loma





(200 on 27 February 2001, V. P. Johnson), and on north San Diego Bay (S8; 343 on 22 February 1993, Mock et al. 1994; 400 on 10 February 2002, K. L. Weaver). Although Brandt's Cormorant is second only to Heermann's Gull as the most abundant bird on north San Diego Bay and variably common on central San Diego Bay (up to 174 on 16 February 1993, Mock et al. 1994), it is rare to absent from south San Diego Bay south of National City (Macdonald et al. 1990, Manning 1995). Flocks can be seen commuting between Los Coronados Islands and Point Loma.

Conservation: Brandt's Cormorants suffer from contamination with pesticides washed into the ocean, from oil spills, and from human disturbance of nesting colonies

(Wallace and Wallace 1998). Michael (1935a) mentioned boys flushing cormorants from their nests at La Jolla by dropping objects on them from the tops of the cliffs. The greatest variations in the birds' numbers and nesting success result from the effect of El Niño on the abundance of fish. When El Niño arrives, the ocean warms, and the food supply is depressed, Brandt's Cormorants raise fewer young or forgo nesting entirely (Boekelheide et al. 1990).

The colony at La Jolla has not been studied consistently enough for its variations to be understood. It was active at least in 1933–34 (Michael 1935a), 1938 (Williams 1942), and 1980 (W. T. Everett) but vacant in June 1991 (McChesney et al.

1998). On 4 May 1995, K. B. Clark noted one active nest and another bird carrying nest material. Surveys for this atlas give the most continuous record of the colony to date and show it has been occupied annually at least since 1997. In 1997, McChesney et al. (1998) noted an increase in Brandt's Cormorants nesting throughout southern California (primarily on the Channel Islands) from previous surveys; a dearth of suitable nest sites may be the factor constraining the breeding population.

Taxonomy: No subspecies. On the basis of skeletal differences, Siegel-Causey (1988) recommended that the genus *Phalacrocorax*, currently encompassing all cormorants, be broken up, Brandt's going into *Compsophaliaeus*.