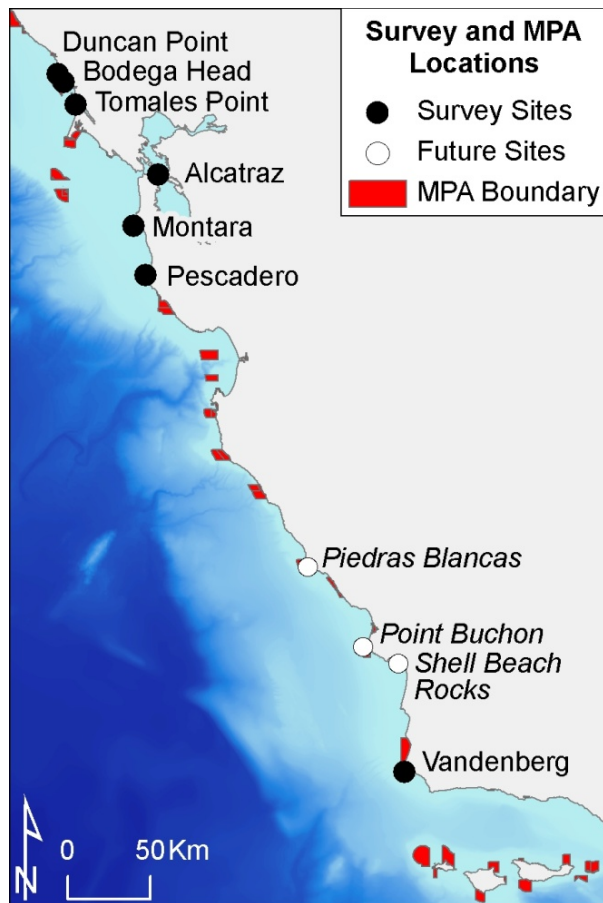




New Surveys Show Changes in Coastal Seabird Populations

PRBO Conservation Science (PRBO) has monitored seabird breeding populations at Alcatraz Island and Vandenberg Air Force Base since the mid-1990s. In 2010, PRBO added five new survey locations to assess the efficacy of marine protected areas (MPAs) established under California's Marine Life Protection Act (see map). Three additional sites will be added in 2011. These colonies have not been surveyed since Carter et al. (1992). Results from this project will guide marine spatial planning to reduce human impacts on seabirds.



Main Points

- Coastal populations of Brandt's Cormorants and Western Gulls have increased dramatically since the mid-1990s.
- Population trends for Pelagic Cormorants differed geographically, with northern colonies decreasing while the southern colony increased.
- Populations of most species decreased at Tomales Point.

Preliminary results revealed population increases at most locations. This was especially true for Brandt's Cormorants and Western Gulls. Both species have established new coastal colonies since the mid-1990s.

There is an apparent divergence in Pelagic Cormorant population trends among northern and southern locations. While the population has increased dramatically at Vandenberg since 1999, there has been a steady decline at Alcatraz since 1996. Duncan Point and Tomales Point also showed decreases.

Tomales Point has experienced population decreases for all species except Brandt's cormorants. Brandt's Cormorants showed only slight growth at Tomales Point and a decrease at nearby Bodega Head. Both locations are adjacent to fishing ports and PRBO is beginning a study to investigate potential impacts of boat and fishing disturbance.

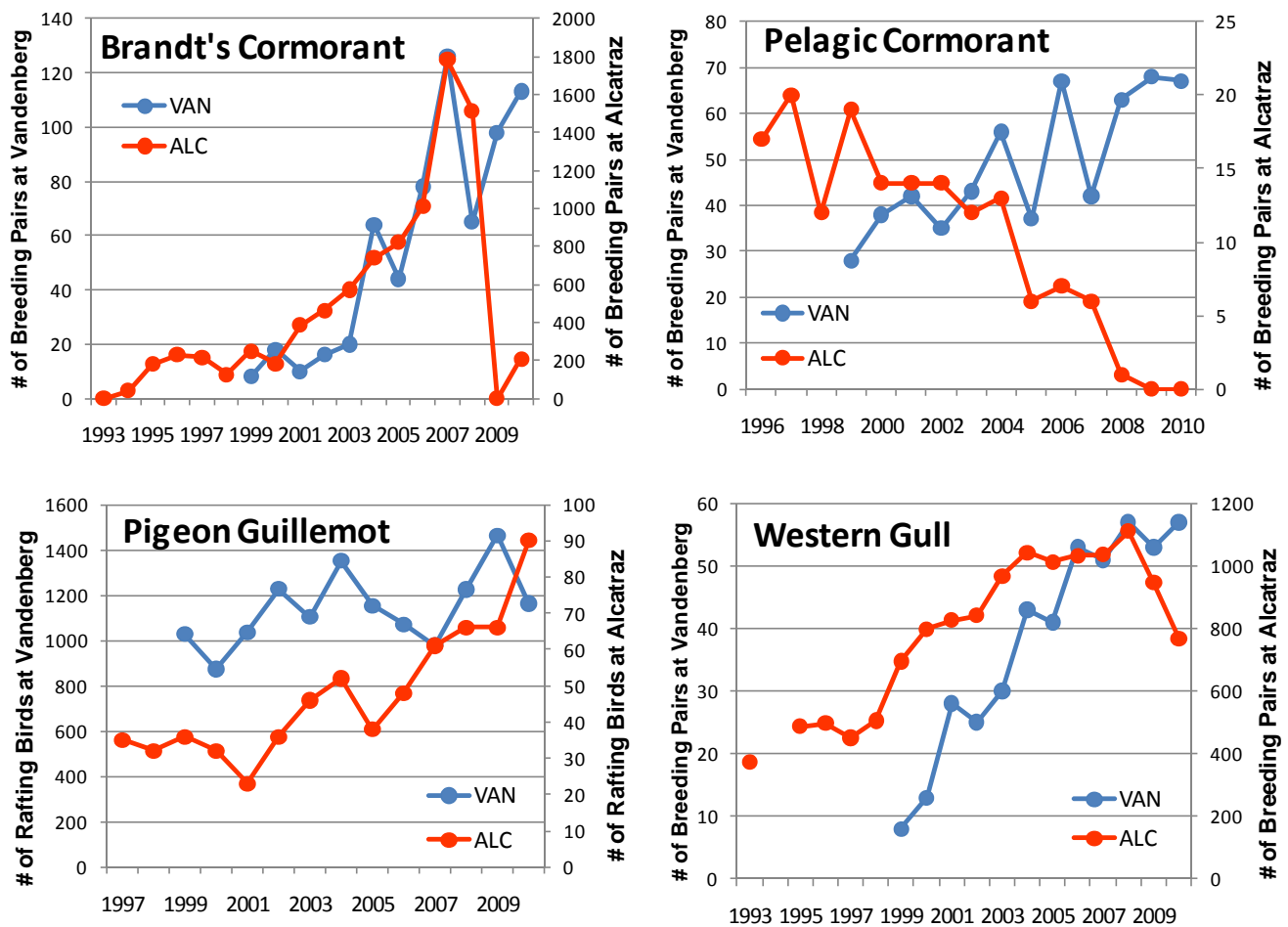


Figure 1. Long-term population trends for four species breeding at Vandenberg (VAN) and Alcatraz Island (ALC) from 1993 to 2010. Alcatraz data in collaboration with National Park Service.

Table 1. Changes in breeding population size at seven coastal sites in central California relative to Carter et al. (1992). Population increases in blue and decreases in red.

| Site | Brandt's Cormorant | Pelagic Cormorant | Pigeon Guillemot | Western Gull | Black Oystercatcher |
|-----------------|--------------------|-------------------|------------------|--------------|---------------------|
| Duncan Point | No breeding | - | + | + | + |
| Bodega Head | - | + | + | + | + |
| Tomales Point | + | - | - | - | - |
| Alcatraz Island | + | No change | + | + | + |
| Montara | No breeding | No breeding | + | + | + |
| Pescadero | No breeding | No breeding | + | + | + |
| Vandenberg | + | + | + | + | + |

Carter et al. 1992. Breeding populations of seabirds in California, 1989-1991. Vol. 1. Unpublished draft final report, U.S. Fish and Wildlife Service, Northern Prairie Wildlife Research Center, Dixon, California.