

**CETACEAN ECOLOGY IN SANTA MONICA BAY, CALIFORNIA,  
WITH EMPHASIS ON 1997-1998 EL NIÑO YEARS**

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The occurrence, spatial distribution and behavior of different cetacean species were investigated in Santa Monica Bay, California. Inshore surveys ( $n = 47$ ), offshore surveys ( $n = 41$ ), and combined inshore/offshore surveys ( $n = 123$ ), conducted between 1997-2001 documented a diverse and rich cetacean fauna. Three species inhabit the bay year-round: the bottlenose dolphin (*Tursiops truncatus*), the long-beaked common dolphin (*Delphinus capensis*), and short-beaked common dolphin (*Delphinus delphis*), and seven species occur only occasionally (Pacific white-sided dolphin, *Lagenorhynchus obliquidens*; Risso's dolphin, *Grampus griseus*; Dall's porpoise, *Phocoenoides dalli*; gray whale, *Eschrichtius robustus*; minke whale, *Balaenoptera acutorostrata*; blue whale, *Balaenoptera musculus*; humpback whale, *Megaptera novaeangliae*). Bottlenose dolphins were found in waters within 0.5 km from shore in 80.0% of the sightings ( $n = 157$ ), but they were also found in deeper waters further offshore ( $> 0.5$  km). All other species were generally seen far from shore ( $> 0.5$  km). The majority of cetaceans were observed traveling, foraging, and feeding near changes in sea bottom reliefs such as escarpments and submarine canyons, showing a preference for these bathymetric features. Cetacean

abundance overall did not decrease significantly during the strong 1997-98 El Niño event, likely due to unique physical oceanographic features of the bay. Two exceptions to the general trend displayed by most cetaceans were recorded for short-beaked and long-beaked common dolphins, and Risso's dolphins. The two species of common dolphins showed shifts in abundance prior, during and after the El Niño event whereas Risso's dolphins disappeared from the bay during El Niño.