



NOAA FISHERIES SERVICE



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Ecosystem Survey of *Delphinus* Species 2009: Mandates and Research Overview

Mandates

The NOAA Fisheries Southwest Fisheries Science Center (SWFSC) is responsible for monitoring and estimating abundance of all cetacean species (whales, dolphins, and porpoises) in the California Current Ecosystem off the US West Coast. This research is mandated domestically by the Marine Mammal Protection Act (MMPA) and the Endangered Species Act (ESA).

Section 117 of the MMPA requires NOAA Fisheries to prepare stock assessments for each marine mammal stock which occurs in waters under the jurisdiction of the United States. Each assessment provides the most current minimum abundance estimate and available trend data, and the current and maximum net productivity rate estimates for the stock. These reports are reviewed at least once every three years and updated when new information is available. The ESA requires a recovery plan and a designation of critical habitat for each listed species. For west-coast cetaceans, our SWFSC research cruises provide most of the data needed to carry out MMPA stock assessments, and meet the requirements for recovery plans and designation of critical habitat required by the ESA. However, species and stocks with distributions restricted to coastal waters and those with a significant portion of their distributions spanning political boundaries (e.g. U.S.-Mexico border) are more difficult to assess and require dedicated research efforts in order to meet these mandates.

Research Overview

The 2009 Ecosystem Survey of *Delphinus* Species Research Cruise was our first research cruise dedicated to furthering our understanding of abundance, stock structure, morphology and life history parameters for the short- and long-beaked common dolphin (*Delphinus delphis* and *D. capensis*, respectively). Both are important members of the California Current ecosystem and the range of at least one stock extends south into Mexican waters. A large and growing coastal urban population in Southern California impacts the Southern California Bight and a wide range of anthropogenic impacts (commercial and recreational fisheries, habitat degradation due to pollution and ocean noise) are emerging as potential threats to *Delphinus* populations in this region. This research took a multidisciplinary approach and collected data on distribution, school size, reproduction, health and habitat of both *Delphinus* species to estimate abundance, key reproductive parameters (e.g. pregnancy rates and calving interval), and contaminant concentrations as an index of health by species and stock. More information can be found at <http://swfsc.noaa.gov/prd-delphinus.aspx>.