

GLOSSARY AND ACRONYMS

AFN/AB: Audubon Field Notes/American Birds.

CalCOFI: California Cooperative Oceanic Fisheries Investigations; an agency drawing personnel, direction and support from the National Marine Fisheries Service, the California Department of Fish and Game and the University of California. CalCOFI investigators have gathered much of the basic information available about fisheries, oceanography and biology of the California Current System.

CUZ: Coastal Upwelling Zone; the area under direct influence of coastal upwellings (not including areas influenced only by upwelled waters advected by offshore eddies). On theoretical grounds the upwelling zone is limited to about 25 to 40 km from the coast.

Cyclonic (Anti-) Circulation: Circulation that follows the direction seen in atmospheric low-pressure systems (cyclones). In the northern hemisphere, cyclonic currents turn counterclockwise. Small to medium sized eddies of the California Current that have a relatively cool interior (cold-core eddies) have cyclonic circulation.

DML: Distance from the nearest point on the mainland shore, a variable included in analysis of bird habitat affinities.

ENSO: El Niño/Southern Oscillation; the quasi-periodic tropical ocean-atmosphere phenomenon leading to collapse of fisheries along the South American west coast around Christmas time. During the warm water phase of ENSO events, surface temperatures along the coast of Peru and northern Chile rise as much as 8°C, the thermocline is very deep, and stratification and stability of the upper water column is strong. Due to decreased upwelling of organic nutrients to the photic zone, plankton productivity is low, and the food webs upon which seabirds depend may be greatly upset. Related, but less severe ocean/atmosphere anomalies occur along the North American Pacific Coast a few months after the peak of events near the equator; oceanographic conditions may be extreme, plankton productivity is low, and some seabird prey populations experience low growth and recruitment.

NOAA: The U.S. National Oceanographic and Atmospheric Administration; within NOAA, the Satellite Field Service Offices of the National Weather Service provide operational monitoring of ocean thermal conditions. NOAA also maintains a network of oceanographic data buoys that provided the basis for calibration of radiometric temperature data taken from airplanes in this study.

North Pacific Central Gyre: The vast mass of subtropical to temperate water occupying the central portion of the North Pacific Ocean. The Gyre is bounded by the California Current in the east, North Equatorial Current in the south, Kuroshio Current in the west and the North Pacific West Wind Drift in the north. Compared to the California Current, surface waters of the Gyre are relatively warm, clear, salty and well stratified in the vertical dimension.

PCA: Principal Components Analysis.

POBSP: The Pacific Ocean Biological Survey Program of the Smithsonian Institution. This far ranging field program included areas off California during the mid-1960s.

SCB: Southern California Bight.

SSS: Sea surface salinity.

SST: Sea surface temperature. During this study SST was measured by bucket or through-hull thermometers aboard ship and by radiometry from airplanes and polar-orbiting satellites.

Thermocline: The portion of the upper water column in the ocean where temperature changes rapidly in the vertical dimension. Above the thermocline, waters are warm and relatively well-mixed by wind, while below it, waters are cool and decrease very gradually in temperature. Off California thermocline depths range from a few meters near the coast to about 100 meters in central and western portions of the California Current. Thermal gradients from the top to the bottom of the thermocline are typically 1 to 4°C.

WD: Water depth.