



The California Current System (CCS) is a region of significant variability in climate, ocean circulation and biological communities. This collection of papers assembles important background information of the oceanography of this important region. The volume contains contributions from the CalCOFI program; papers on sediment cores and sediment trap results taken in the Santa Barbara basin; from a variety of research efforts in Central California; from EPA-sponsored studies in the Gulf of the Farallones; and from ONR-sponsored studies in Northern California. Physical studies include both modeling and observational studies. Chemical studies include reports from high frequency time series, nutrient profiles and isotopic composition. Biological studies focus on seasonal dormancy of copepods, feeding behavior of siphonophores and whales and their relation to oceanographic processes, and continuous bio-optical series from ships, moorings and drifters. Particle flux and paleoclimate papers include studies of marine snow in Monterey Bay and sediment trap results and sediment cores from the Santa Barbara basin.

A. Huyer, J.A. Barth, P.M. Kosro, R.K. Shearman and R.L. Smith -- Upper-ocean water mass characteristics of the California current, Summer 1993 -- 1411-1442

Steven R. Ramp and Christopher L. Abbott -- The vertical structure of currents over the Continental Shelf off Point Sur, CA, during Spring 1990 -- 1443-1470

John M. Steger et al. -- An empirical model of the tidal currents in the Gulf of the Farallones -- 1471-1505

Mary L. Batteen and Philip W. Vance -- Modeling studies of the effects of wind forcing and thermohaline gradients on the California Current System -- 1507-1556

M.D. DeGrandpre, T.R. Hammar and C.D. Wirick -- Short-term pCO₂ and O₂ dynamics in California coastal waters - - 1557-1575

Loren Haury and Eric Shulenberger -- Surface nutrient enrichment in the California Current off Southern California: description and possible causes -- 1577-1601

G.H. Rau, C. Low, J.T. Pennington, K.R. Buck and F.P. Chavez -- Suspended particulate nitrogen ¹⁵N versus nitrate utilization: observations in Monterey Bay, CA -- 1603-1616

Thomas L. Hayward and Elizabeth L. Venrick -- Near-surface pattern in the California Current: coupling between physical and biological structure -- 1617-1638

Mark R. Abbott and Ricardo M. Letelier -- Decorrelation scales of chlorophyll as observed from bio-optical drifters in the California Current -- 1639-1667

S.K. Service, J.A. Rice and F.P. Chavez -- Relationship between physical and biological variables during the upwelling period in Monterey Bay, CA -- 1669-1685

Helge A. Thomsen and Kurt R. Buck -- Nanoflagellates of the central California waters: taxonomy, biogeography and abundance of primitive, green flagellates (Pedinophyceae, Prasinophyceae) -- 1687-1707

Mark D. Ohman, Aleksandr V. Drits, M. Elizabeth Clarke and Stéphane Plourde -- Differential dormancy of co-occurring copepods -- 1709-1740

Bruce H. Robison, Kim R. Reisenbichler, Rob E. Sherlock, Jessica M.B. Silguero and Francisco P. Chavez -- Seasonal abundance of the siphonophore, *Nanomia bijuga*, in Monterey Bay -- 1741-1751

James Nybakken et al. -- Distribution density and relative abundance of benthic invertebrate megafauna from three sites at the base of the continental slope off central California as determined by camera sled and beam trawl -- 1753-1780

Paul C. Fiedler et al. -- Blue whale habitat and prey in the California Channel Islands -- 1781-1801

Cynthia H. Pilskaln, Charlotte Lehmann, Jennifer B. Paduan and Mary W. Silver -- Spatial and temporal dynamics in marine aggregate abundance, sinking rate and flux: Monterey Bay, central California -- 1803-1837

Mary W. Silver, Susan L. Coale, Cynthia H. Pilskaln and Francisco P. Chavez -- Exploratory observations of marine aggregates at sub-euphotic depths -- 1839-1861

Robert C. Thunell -- Particle fluxes in a coastal upwelling zone: sediment trap results from Santa Barbara Basin, California -- 1863-1884

W.H. Berger and C.B. Lange -- Silica depletion in the thermocline of the glacial North Pacific: corollaries and implications -- 1885-1904