

Part I

REPORTS, REVIEW, AND PUBLICATIONS

REPORT OF THE CALCOFI COMMITTEE

In 2005, participants in the CalCOFI Conference were offered the opportunity to register electronically. Those paying fees individually were encouraged to pay via PayPal using either a credit card or established PayPal account. This provides several advantages to the conveners (for instance, we no longer have to decode handwritten registration information, or handle large numbers of personal checks and cash). We have established a list-serve for electronic communications. We have encouraged electronic registration for the 2006 conference and expect to continue this in the future. Because this is an evolving process, we welcome your feedback.

At this writing, all published CalCOFI Atlases are being scanned and will be made available as searchable .pdf files on the Scripps/CalCOFI web site (www.calcofi.org; follow link to publications, then to atlases), much as the CalCOFI Reports have been. Ultimately, we hope to link the Atlases with the underlying data.

PACOOS

The California Current flows affect the ecology, weather, climate and economies of the entire West Coast of North America. The Pacific Coast Ocean Observing System (PaCOOS) is an umbrella organization of federal and state agencies and academic partners that is developing ocean-observing products and services that are transboundary in nature and apply to the entire region (three countries and three Regional Associations). The present focus is on data management and modeling activities leading eventually towards ecological forecasts. There is an annual Board of Governors meeting and *ad hoc* Committees on data management, modeling, and ocean observing. More information about PaCOOS can be found at (www.pacoos.org). Under the auspices of PaCOOS, the following activities relating to CalCOFI occurred in the 2005–06 timeframe:

1. Reoccupation of the CalCOFI survey line off Humbolt, CA conducted by NOAA and Humbolt State University began in May 2006.
2. Monterey Bay Area Research Institute (MBARI), the Naval Post-Graduate School and the University of California, Santa Cruz (UCSC) continue to conduct the quarterly central-California CalCOFI survey line.

3. A quarterly Oregon survey line off of Newport, OR by NOAA began in April 2006.
4. NOAA and PaCOOS partners continue to develop data management capabilities; eventually the following ecological data will be served online:
 - a. West Coast oceanographic data including the NOAA CalCOFI dataset (<http://www.pfeg.noaa.gov/products/las.html>),
 - b. West Coast benthic habitat data that will be available online in 2006,
 - c. National Marine Sanctuary West Coast data,
 - d. Krill time-series data in southern and central California by Scripps Institution of Oceanography and University of California, Santa Cruz.

The PaCOOS governing body also matured with the establishment of an Executive Committee and coordinators at both the NOAA Northwest and Southwest Fisheries Science Centers as well as two academics representing the interests of the Regional Associations. Two workshops occurred in 2006 on biological data management and integration of CalCOFI data with ecological and physical data from Mexican and Canadian counterparts as well as on biological survey sampling methodologies for the California Current.

SCCOOS

Since July 2004, funding from the Southern California Coastal Observing System (SCCOOS) has allowed CalCOFI surveys to occupy a suite of nine stations near or on the 20 fm depth contour. Preliminary examination of the physical, chemical, and bulk biological parameters indicates that the nearshore high-production zone is well covered by SCCOOS stations and by some CalCOFI inshore stations. Ongoing work focuses on differences in community structure and differences in the abundance of fish larvae in the nearshore and the CalCOFI coastal stations.

CCE/LTER

In 2004, the CalCOFI region was recognized by the National Science Foundation as a Long-Term Ecological Research area: the California Current Ecosystem (CCE). In May, the program initiated its first experimental process

cruise in the California Current System. The objective was to utilize the spatial variability in nitracline depth and food-web structure as an analog of the ecosystem change that has been observed over time by the CalCOFI surveys. Accordingly, the process cruise was structured around five experimental cycles, each in different hydrographic and biotic conditions including: active upwelling sites, the low-salinity core of the California Current, and the highly stratified offshore domain. The location of each cycle was determined with the help of the CalCOFI cruise 0604, MODIS satellite imagery, and Spray glider mapping. At each experimental cycle, a Globalstar satellite-tracked drifter array was deployed. This vertical array included a series of experimental incubation bottles for assessing grazing and growth rates of different constituents of the plankton assemblage. All sampling (for diel periodicity of mesozooplankton grazing, MOCNESS, iron-limitation incubations, dissolved organic matter, bio-optical properties, and other studies) were carried out in the Lagrangian context established by the drifter. Many of the cruise data will soon be accessible at the CCE web site (<http://cce.lternet.edu/>).

GLIDER AND MVP HIGHLIGHTS

Funds from the Gordon and Betty Moore foundation to M. Ohman and R. Davis at Scripps Institution of Oceanography purchased two autonomous Spray Gliders that are programmed to undulate continuously between 0 and 500 m, one proceeding along line 93 and one along line 80. The first glider was launched along line 93 in April 2005 and, as of this writing, has made three trips; the second was launched along line 80 in October 2005 and has completed one trip. Selected profiles and data are available on the Spray web site (<http://spray.ucsd.edu/>; follow the link to Data).

Also, Moore Foundation funds purchased a Moving Vessel Profiler (MVP) a free-fall instrument package equipped with a CTD, a fluorometer, and a Laser Optical Particle Counter that can be deployed and retrieved from a moving ship. This was successfully used for the first

time on CalCOFI 0511. Funds are being sought for routine deployment on CalCOFI cruises.

HERRING MANDATE HIGHLIGHTS

The California Fish and Game Commission adopted regulations to reduce the minimum mesh size from 2-1/8 inches to 2 inches for the San Francisco Bay commercial herring gillnet fishery. The California Fish and Game Department expressed concern that a potential increase in the harvest of younger fish may have a long-term negative effect on the population. Since the 1997–98 El Niño, larger, older fish have been scarce or absent in both catch and population samples, declining well below long-term averages. One of the principal management goals is to harvest age-4 fish and older from the population; this is designed to restore and maintain the herring fishery. The Department of Fish and Game provided an analysis of the potential impacts of reducing the mesh size in the Commission's Supplement Environmental Document: Pacific Herring, Commercial Fishing Regulations. The Department determined that the use of 2-inch mesh would potentially increase the catch of 3- and possibly some 2-year-old fish. As mitigation for the potential take of the younger age-classes, the Department recommended reducing the quota at 10 percent of spawning biomass (5,890 tons) by the percentage of 2- and 3-year-old herring estimated to comprise the 2004–05 season landings (11.3 and 12.2 percent by weight respectively). The estimated percentage of 2- and 3-year-old herring is suggested as an approximation of the percentage that may be caught in the 2005–06 season. This results in a quota of 4,502 tons or 7.6 percent of the 2004–05 estimated spawning biomass. The Commission adopted the reduced quota for the 2005–06 season.

The CalCOFI Committee:

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