

## PART I

# REPORTS, REVIEW, AND PUBLICATIONS

### REPORT OF THE CALCOFI COMMITTEE—1981

The CalCOFI Committee is pleased to announce three new atlases in press or in preparation. These are Atlas Number 28, "Distributional Atlas of Fish Larvae in the California Current Region: Northern Anchovy, *Engraulis mordax* Girard, 1966–1979," by Roger Hewitt; Atlas Number 29, "Teleconnections of 700 mb Height Anomalies for the Northern Hemisphere," by Jerome Namias; and Atlas Number 30, "Vertical and Horizontal Distribution of Seasonal Mean Temperature, Salinity, Sigma- $t$ , Stability, Dynamic Height, Oxygen and Oxygen Saturation, 1950–1978 in the California Current," by Ron Lynn, Kenneth Bliss, and Larry Eber. These new atlases and the papers in this volume of reports by Bernal and by Chelton again remind us of the tremendous importance of long time series in the understanding of oceanic ecosystems. CalCOFI Data Report Number 29 (CDFG Sea Survey Cruises 1979) has been distributed, and CalCOFI Data Report Number 30 (CDFG Sea Survey Cruises 1980) is in preparation.

Recent changes in the economics and methodologies of marine and fisheries research have caused the Committee to examine the past work of CalCOFI and to begin to examine its future role. At the request of the Committee, Paul Smith has undertaken a preliminary reexamination of Oscar E. Sette's 1942 model for fisheries research. Additionally, the Committee intends to convene, in the spring of 1982, a workshop on the future of CalCOFI.

Some new methods or approaches to research are being employed or examined. The discovery by Hunter and Goldberg in 1980 that the ovaries of spawning female anchovies could be categorized as to spawning condition permitted the execution in 1980 of a plan by Parker that would permit biomass estimation directly from estimates of daily egg production, fraction of female anchovies spawning daily, sex ratio, and fecundity. Tests of the efficacy of this "egg production method" are being conducted during the triennial CalCOFI survey cruises of 1980–81.

With a view toward reducing ship time while maintaining the integrity of the CalCOFI time series at the level of resolution of low-frequency, large-scale

events, Hayward and Venrick are testing the efficacy of "indicator stations." They are collecting full suites of biological, chemical, and physical data from the entire CalCOFI grid, but they are occupying four stations for 48 hours each; thus they will be able to perform within-station, between-station, and large areal statistical comparisons. If these stations prove to represent larger areas adequately, it may permit CalCOFI to reduce the scale of its ship operations with respect to some time-series-dependent questions.

Also offering the potential to reduce the areal scope of CalCOFI ship operations is the California Coastal Fronts program. Simpson and Haury are examining the characteristics of frontal systems in the California Current using traditional and state-of-the-art techniques, such as satellite radiography, time series analyses, and numerical modelling. These frontal systems may be significant in the survival of fish of commercial importance.

The members of the Committee extend their thanks to George Hemingway who has served as Coordinator from July of 1979 through June of 1981. During his term as Coordinator, CalCOFI Reports became a reviewed annual journal with a publication date only a few months after the final deadline for the submission of papers. We appreciate George's dedicated service to CalCOFI and wish him well in his future endeavors.

Since 1979, the Coordinator's duties rotate among the three principal agencies: Scripps Institution of Oceanography, University of California San Diego; the Southwest Fisheries Center, National Marine Fisheries Service; and the California Department of Fish and Game. From July 1981 through June 1983, the CalCOFI Committee will be in excellent hands as we welcome Reuben Lasker of the Southwest Fisheries Center as its new Coordinator.

We wish to thank all the reviewers and the editorial staff for their excellent work on this volume.

*The CalCOFI Committee*  
*Joseph L. Reid*  
*Izadore Barrett*  
*John Radovich*