

Part I

## REPORTS, REVIEW, AND PUBLICATIONS

### REPORT OF THE CALCOFI COMMITTEE

Sardines are recovering, and for the fourth year in a row, a 1,000-ton quota was opened for sardines on January 1. This year the quota permitted by the California Department of Fish and Game was split, with 200 tons available in the north and 800 tons in the south. The 800-ton quota was landed within two weeks, mostly by San Pedro purse seine vessels. The resurgence of the sardine, well documented by the commercial fishery and sea surveys, is also supported by aerial surveys. Recently, a twenty-five-year review of aerial survey data on populations of adults showed that Pacific sardine and northern anchovy abundance correlated well with changes in the historical abundance of larval sardine and anchovy caught in nets. The larval fish information used in this study was based on CalCOFI egg and larva samples, published in last year's *CalCOFI Reports*. Anchovy larval abundance has fluctuated widely since the mid 1960s; sardine larval abundance declined from the 1950s through the 1970s, rising sharply thereafter.

We estimated northern anchovy biomass this year using data obtained from Mexico on anchovy catch by month, data on the relative length-frequency distribution by month, and information on larval fish abundance from CalCOFI cruises. A paper describing these calculations is published in this volume. We obtained the data on the Mexican anchovy catch under the auspices of the MEXUS-Pacifico agreement, which last year established a U.S.-Mexico Committee to monitor and assess joint fisheries. Cooperative exchange of fisheries research and fishery information, so important in meeting CalCOFI objectives, was the topic of several MEXUS-Pacifico meetings in 1988 with Mexico's Fisheries Secretariat.

To further exchange fisheries information and technology with Mexico, we hosted a four-day workshop on ageing pelagic species. The workshop, which focused on ageing criteria and techniques, resulted in the development of an exchange program for sardine and mackerel otoliths. We presented and participated in a second workshop, held in Mexico, on fishery sampling techniques.

This year, for the first time, we assessed the biomass of Dover sole with the egg production method (EPM) using information about adults, eggs, and larvae that was collected on 1986 and 1987 CalCOFI groundfish cruises. The EPM biomass assessment agreed with the traditional biomass estimate obtained by trawl for the same years. This year CalCOFI completed another 7-week groundfish trawl survey for Dover sole and sablefish; four 2½-week surveys of the California Current; a sardine egg survey that extended from central California to Sebastian Viscaïno Bay, Mexico; a midwater trawl survey for young-of-the-year anchovy, sardine, and mackerel; and two night-light surveys for young Pacific mackerel.

Future plans are to take continuous underway samples on all CalCOFI cruises to obtain more complete spatial coverage. To that end, we used the Doppler acoustic apparatus on one cruise to obtain qualitative information on zooplankton concentrations. An article in this volume describes the diurnal migration, distribution patterns, and relative abundance of these plankters.

At the 1988 CalCOFI Conference, we had a lively exchange in point-counterpoint format on "Can Marine Fisheries Be Enhanced?" The discussants present their evidence for and against enhancement in the Symposium section of this volume. Another highlight at the conference was an evening program and slide show narrated by CalCOFI sea-going technicians to illustrate shipboard collection and processing activities.

To encourage student participation at the annual conference, we established two scholarship funds this year. We endowed The Reuben Lasker Memorial Fund and will use the annual yield to fund fellowships for students taking part in the conference. Contributions to the Lasker Fund are exempt from taxation. Additional contributions, graciously donated by the Redondo Beach Sister City Program, will fund the attendance of one student from La Paz and one from Ensenada each year.

To increase and broaden participation in the annual CalCOFI Conference and to recognize the in-

creasing importance of groundfish, the CalCOFI Committee decided to convene the conference in northern California in 1990, and thereafter to alternate the location between south and north.

Visibility of *CalCOFI Reports* was increased last year with the publication of manuscript abstracts in *Aquatic Sciences and Fisheries Abstracts* and in *Oceanic Abstracts*; *CalCOFI Reports* also is now indexed in *Current Contents*. We learned from the Institute for Scientific Information (ISI), publishers of *Current Contents*, that in 1988 *CalCOFI Reports* was cited 57 times in other scientific journals. It is because of this high citation rate that ISI granted our request for indexing.

*CalCOFI Reports* has a new look this year. We are beginning our next forty years with a new cover design. Included in this volume are author-title and subject indexes for 1983 through 1988. The last index, in volume XXIV, encompassed 1950 through 1982.

Many thanks to the officers and crews who assist us in our work on the University of California RV *New Horizon*, the National Oceanic and Atmospheric Administration Ship *David Starr Jordan*, the Southern California Ocean Studies Consortium RV *Yellowfin*, the RV *Point Loma*, the RV *Shana Rae*, and the RV *Westwind*.

The Committee also thanks all of those who have worked so hard on this thirtieth volume: *CalCOFI Reports* editor Julie Olfe for her patient, professional assistance and her continuing vigil over rising publishing costs; Spanish editors Carina Lange and Maria Vernet; Coordinator Gail Theilacker; and the following reviewers who assisted in making this an excellent report: Angeles Alvariño, Jay Barlow, Peter Boveng, Richard Brusca, Richard Deriso, Joris Gieskes, Edward Goldberg, Loren Haury, George Hemingway, William Hettler, D. Van Holliday, John Hunter, Margaret Knight, Donald Kobuyaski, Garth Murphy, Mark Ohman, Susan Picquelle, Kurt Schaefer, and William Shelton.

Finally, the Committee extends thanks and sincere appreciation to Gail Theilacker, not only for her dedicated work as CalCOFI Coordinator from 1987 through 1989, but also for her outstanding efforts in establishing the Lasker Memorial Fund, and her initiative in winning increasing professional visibility for *CalCOFI Reports*.

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