

Part II

## SYMPOSIUM OF THE CALCOFI CONFERENCE

Fallen Leaf Lake, California

October 25, 1994

### THE 1991–92 EL NIÑO AND ITS IMPACT ON FISHERIES

In June 1958, Oscar Sette and John Isaacs assembled an eminent group of physical and biological scientists to describe and discuss “The Changing Pacific Ocean in 1957 and 1958.” The list of participants includes names now recognized as the founders of modern climatology and of physical, biological, and fisheries oceanography. The symposium set a standard in terms of the multidisciplinary approach that must be used to address this complex subject. Its proceedings, published in *CalCOFI Reports*, volume VII (1960), is still one of the most comprehensive views of El Niño in the Pacific, and remains fascinating reading after nearly forty years.

Since the 1957 event, the California Current ecosystem has experienced several other El Niño–Southern Oscillation (ENSO) and El Niño–like episodes. With each new ENSO event, researchers have combined past experience with technological advancements to further our understanding of this phenomenon and its ramifications throughout the ecosystem. On the heels of the 1992–93 event, which occurred in conjunction with a particularly large number of ongoing fisheries research programs, the CalCOFI organizing committee felt it appropriate to reevaluate what is known about ENSO and its impact on the fisheries of the California Current. In the spirit of the 1958 meeting, we organized the 1994 CalCOFI Symposium, “The 1991–92 El Niño and Its Impact on Fisheries,” as part of the 1994 CalCOFI

Conference at the Stanford Alumni Association’s Sierra Camp Conference Center. Although this was certainly not the only ENSO symposium to take place in recent years, its focus on fisheries–oceanography linkages during ENSO events make this conference and its proceedings unique.

The contributors describe the effects of the 1991–93 ENSO within different coastal regions of the northeast Pacific Ocean, from the Gulf of Alaska to Baja California, and compare them to previous ENSO events. In most cases the results are described in a multidisciplinary sense, relating the consequences of environmental perturbations to the fisheries ecosystem, with comparisons to “normal” years. The fisheries implications of La Niña (“cold” year) events are considered as well. A particular emphasis is the incorporation of results from all disciplines to create an integrated presentation that best represents our current understanding.

In addition to the authors listed in these papers, numerous other researchers contributed to the results and analyses described here and are recognized for their collaborative efforts. Finally, we gratefully acknowledge the experts who sent us timely reviews of the manuscripts, which added to the quality of these proceedings.

Franklin Schwing  
Stephen Ralston



Participants in the Symposium of the CalCOFI Conference: The 1991–92 El Niño and Its Impact on Fisheries. *Left to right: (above) Martin Dorn, Paul Smith, Bill Lenarz, David Ainley, Greg Hammann, Allen Macklin, Frank Schwing, Ron Lynn; (below) Tom Murphree, Steve Ralston.*