

State of California - The Resources Agency
Department of Fish and Game
Marine Resources Region
Long Beach, California 90802

CRUISE REPORT 70-S-3 ROCKFISH

Prepared by R. H. Parrish

Vessel: N. B. SCOFIELD

Dates: May 17-30, 1970

Locality: Monterey Bay, Point Sur, and the northern Channel Islands.

Purpose: To determine species associations, abundance, and distribution of bottomfishes, and to obtain specimens for taxonomic and biological studies.

To collect specimens with a trawl at permanent longline stations in Monterey Bay for comparative studies with catches made with longline gear.

To longline for rockfish on rocky bottom in lightly exploited areas.

To longline for sablefish in submarine canyons where sablefish are not presently exploited.

To collect fish for pesticide analysis.

Operations: Five trawls (Figure 1) were made on the shallow end of an established longline transect in Monterey Bay (10 fathoms to 61 fathoms). Stations at 80 to 500 fathom depths were too steep for trawling.

A total of 24 longline sets was completed. Three of these sets were made in 800, 950, and 1200 fathoms west of Point Cypress for grenadiers. Three sets at Point Sur (33-61 fathoms), four sets west of San Miguel Island (20-115 fathoms), and one set south of Anacapa passage (57 fathoms) were made for rockfish. Twelve sets consisting of three transects of four sets each were made between 150 and 330 fathoms off the northern Channel Islands for sablefish (Figures 1 and 2).

Results: Trawling - There appears to be little relationship between the flatfish catches with longlines and with otter trawls. The trawls in Monterey Bay were dominated by pleuronectids, while longlines set at the same stations, using NAUTILUS, were dominated by Pacific sanddabs, *Citharichthys sordidus*; and white croakers, *Gemyonemus lineatus*. Sanddabs and white croakers were taken in very limited numbers in the five trawls, and pleuronectids only occasionally have been taken on longline gear. Otter trawl catches of round bottomfishes and elasmobranchs were comparable with longline catches of these species normally taken at these stations; with the aforementioned exception of the white croaker.

Rockfish - Excellent catches of rockfishes were made on rocky bottom sets off Point Sur and San Miguel Island. Catches far exceeded those made in comparable bottom areas off Monterey and Half Moon Bay which support high partyboat effort.

Good catches of blackgill rockfish, *Sebastes melanostomus*, were made at stations 14 and 17 (Figure 2), in association with sablefish.

Sablefish - Good catches of sablefish, *Anoplopoma fimbria*, were encountered on three deep transects off the northern Channel Islands. Catches exceed 170 pounds of sablefish per set on two sets. Catches were comparable, both in numbers and size of fish, to sets made at the same depths off Monterey, where a viable sablefish fishery exists.

Sets need to be made at depths greater than the 330 fathom maximum on this cruise to determine if quantities of larger fish are available off southern California.

Grenadiers - The grenadier, *Coryphaenoides acrolepis*, has been taken regularly on the 410 and 500 fathom sets of the monthly NAUTILUS longline cruises. Three deep (800, 950, and 1200 fathom) sets were made to determine their depth distribution and to ascertain the maximum depth at which sablefish are normally taken off central California. Sablefish were not taken on any of these sets and *C. acrolepis* had peak concentrations from 800-950 fathoms.

Personnel:

Don Carvalho, Vessel Captain
R. H. Parrish, Biologist-in-charge
Richard Nitsos, Biologist, May 22-24, 1970
Jim Hawk, Seasonal Aid
Elizabeth Stevens, May 24, 1970; Hopkins Marine Station

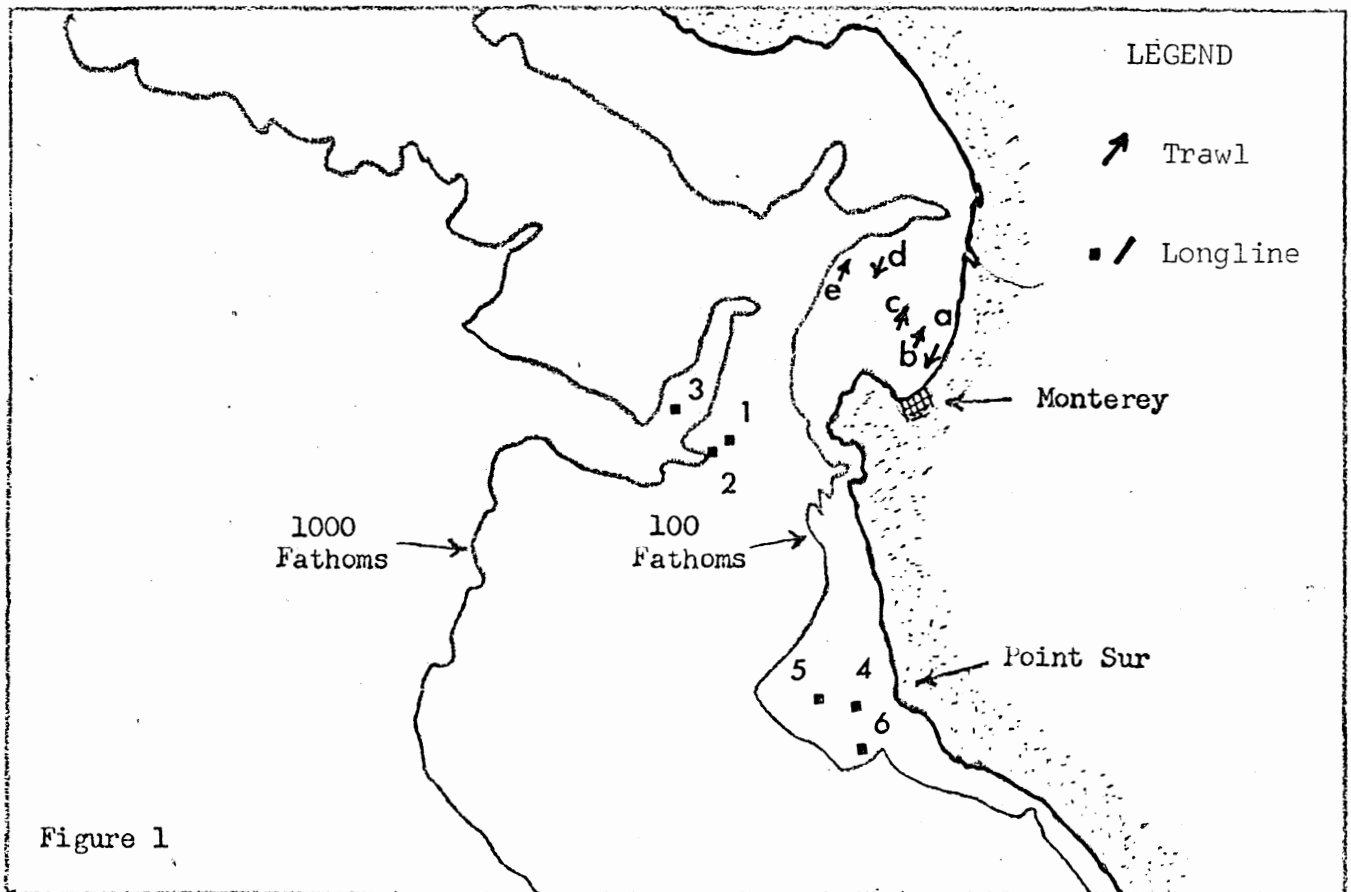


Figure 1

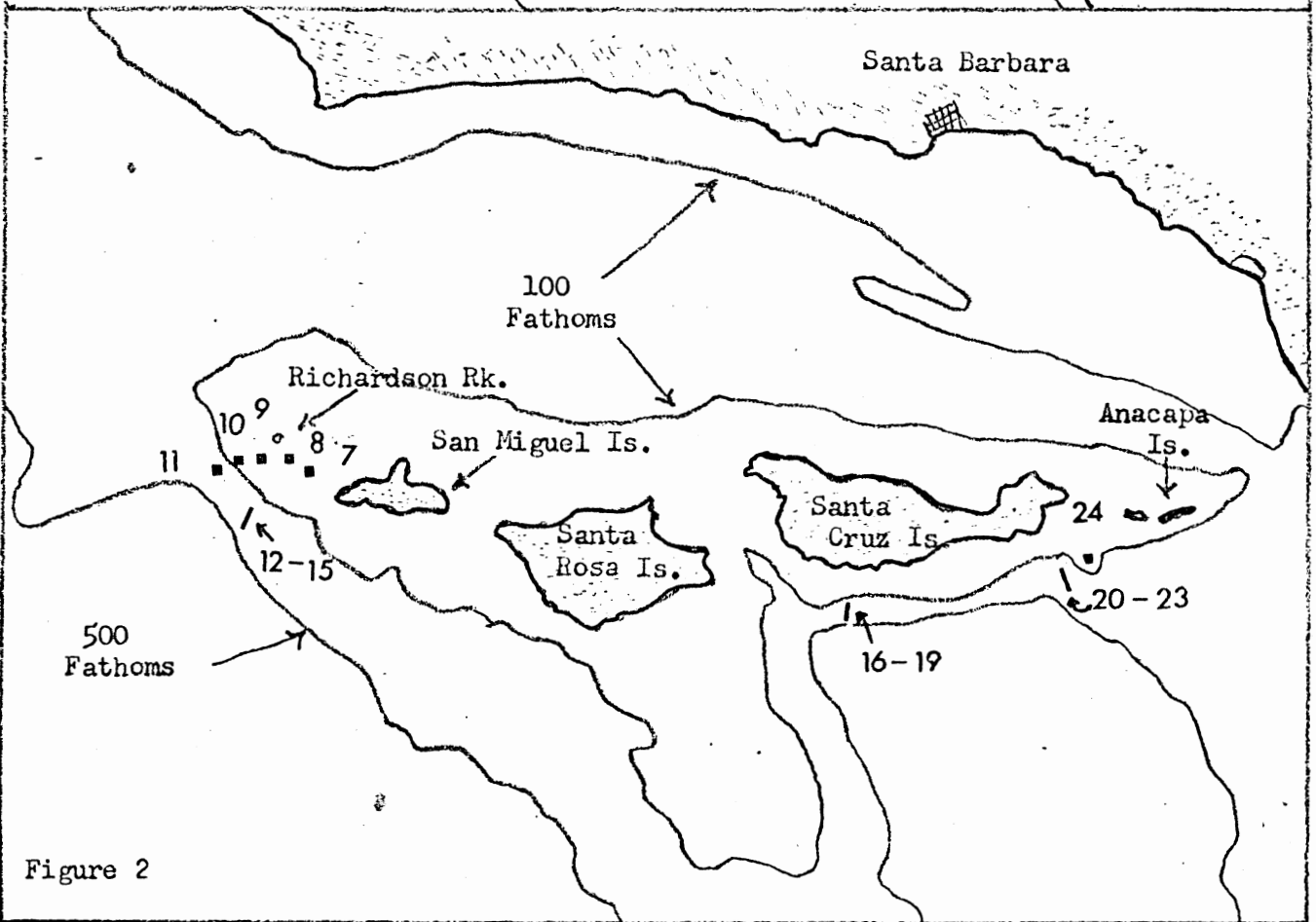


Figure 2