

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

CRUISE REPORT 70-S-7 BIG GAME FISHERIES INVESTIGATIONS

Prepared by James Phelan

Vessel: N. B. SCOFIELD

Dates: October 14 - October 26, 1970.

Locality: The nearshore waters of Baja California, and its offshore islands and banks between the California-Mexico border and Magdalena Bay.

- Purpose:
1. To collect a spatially distributed series of bonito, from the study area, for subpopulation analysis.
 2. To capture, tag, and release Pacific bonito, *Sarda chiliensis* and California yellowtail, *Seriola dorsalis*.
 3. To collect a series of eye lenses of California yellowtail and white sea bass for subpopulation analysis.
 4. To make incidental collections of fishes and invertebrates.

Results: Several bonito heads were collected and saved frozen for later subpopulation analysis.

A total of 304 bonito was tagged and released in Baja California waters between the 10 fm. spot, San Cristobol Bay and Cedros Island (Table 1, Figure 1).

A total of 10 yellowtail was tagged (Table 1, Figure 1).

Eye lenses were collected from 24 yellowtail. No white sea bass were captured.

Incidental species collected by angling and under lights included; sierra mackerel, *Scomberomorus sierra*; ocean whitefish, *Canolatilus princeps*; skipjack, *Katsuwonus pelamis*; kelp bass, *Paralabrax clathratus*; jack mackerel, *Trachurus symmetricus*; Pacific mackerel, *Scomber japonicus*; a rockfish, *Sebastes* sp.; and a grouper, *Mycterperca* sp.

Sea surface temperatures ranged from a low of 15.5°C (59.9°F) at San Geronimo Island, Baja California to a high of 24.5°C (76.1°F) at Santa Maria Bay, Baja California.

Personnel: Anthony Black - Vessel Captain
James Phelan - Biologist-in-charge
Brian Thayer - Biologist
Kenn Bolding - Seasonal Aid

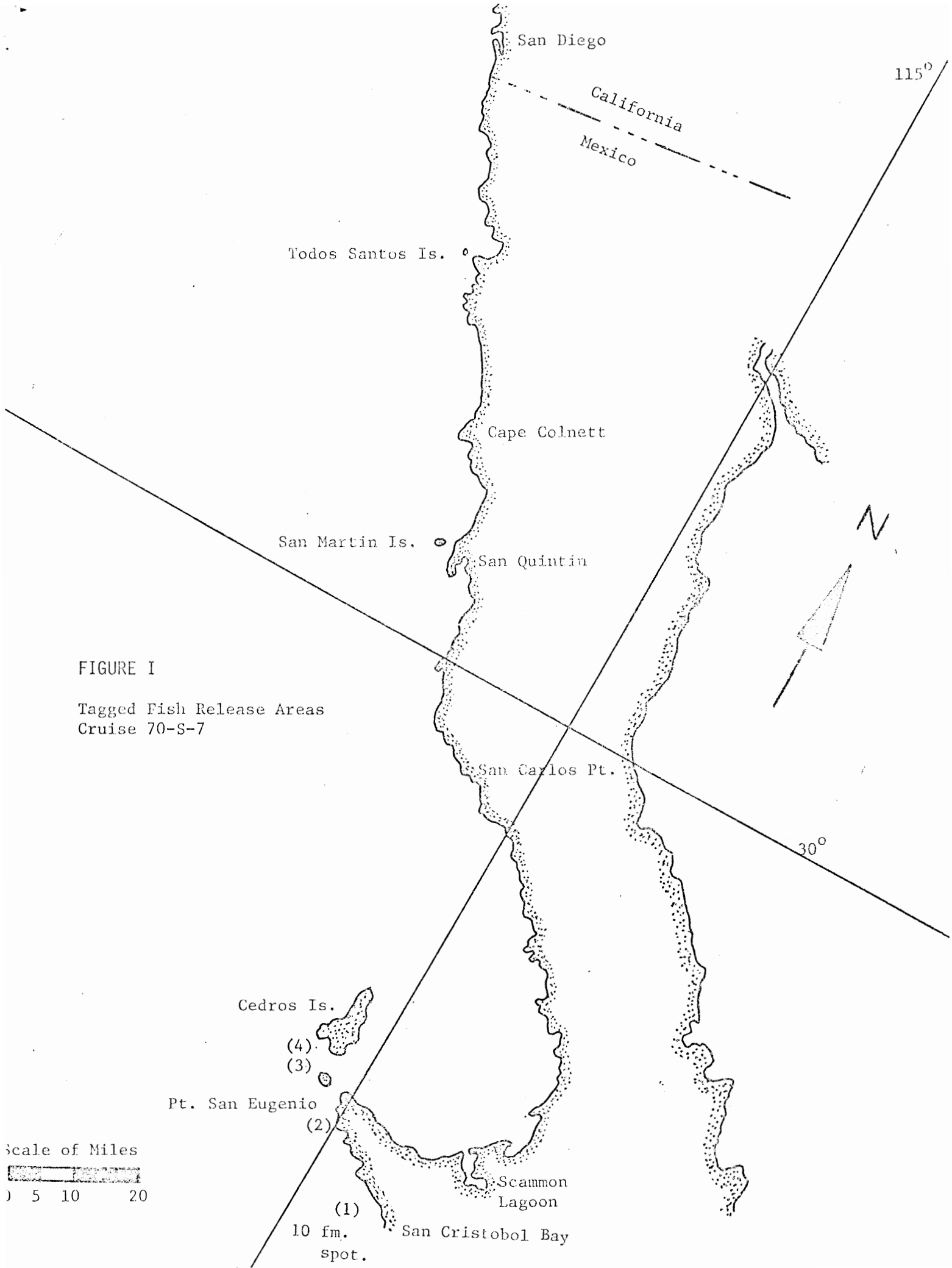


FIGURE I

Tagged Fish Release Areas
Cruise 70-S-7

Scale of Miles
0 5 10 20