

Department of Fish and Game
Marine Resources Operations
California State Fisheries Laboratory
Terminal Island, California

Cruise Report 64-S-4 Bottomfish

Prepared by Gary Smith

- Vessel:** N. B. SCOFIELD
- Dates:** Departed from San Pedro, July 21, 1964
Returned to San Pedro, August 20, 1964
- Locality:** Coastal waters off Shelter Cove, Bodega Bay, and Ventura.
- Purpose:**
1. To locate and tag petrale sole, Eopsetta jordani, for migration and sub-population studies.
 2. To tag sharks in cooperation with the American Institute of Biological Sciences and the U.S. Fish and Wildlife Service tagging program.
 3. To collect specimens for specific studies.
- Results:**
1. All tagging was conducted in the vicinities of Shelter Cove and Bodega Bay using commercial otter trawl gear. A total of 2,864 petrale sole was tagged and released in water shallower than 65 fathoms. The fish were captured during 95 tows, each of 20 to 30 minutes in duration. The condition of these fish taken from and released in shallow water was excellent.

Forty-three of the tows were in the Shelter Cove area (Figure 1), and produced 1,664 petrale sole for tagging. Approximately 60 percent of these fish were of commercial size (greater than 11 inches), and were available in commercial quantity. The remaining 52 tows were made in the Bodega Bay area (Figure 2) where 1,200 petrale were tagged. Although 99 percent of the Bodega Bay fish were of commercial size, they were less abundant than in the Shelter Cove area.

Returns from this tagging effort will give valuable information about summer migrations of petrale sole stocks, as well as additional growth data. A few tagged petrale sole were recaptured by the commercial fleet before the termination of the cruise.

2. Five male dogfish sharks, Squalus acanthias, were tagged and released in the Shelter Cove area. Two red Peterson disc-type tags printed in English and Spanish were secured on either side of the first dorsal fin with a stainless steel pin.

3. Specimens of English sole, Parophrys vetulus, petrale sole, Eopsetta jordani, Dover sole, Microstomus pacificus, rex sole, Glyptocephalus zachirus, and curl-fin turbot, Pleuronichthys decurrens, were collected for systematic studies at the California Academy of Sciences. Several fishes preserved and delivered to the California State Fisheries Laboratory, Terminal Island were blue-spotted poacher, Xeneretnus triacanthus, warty poacher, Occa verrucosa, roughback sculpin, Chitonotus pugetensis, yellowchin sculpin, Icelinus Quadriseriatus, and a juvenile ragfish, Icosteus aenigmaticus.

We planned to tag Pacific halibut, Hippoglossus stenolepis, with operculum tags but were unable to do so because the species was not taken. This tagging project is in cooperation with the International Pacific Halibut Commission.

Three tows were made in the Ventura area to collect juvenile California halibut, Paralichthys californicus, for the Department's Sportfish project at Terminal Island. No juveniles were found.

Personnel:

- Marco Mazarovich - Acting Vessel Captain, July 21-August 1
- Richard B. Mitchell - Vessel Captain, August 2-20
- Gary Smith - Biologist-in-charge
- Paul Wild - Assistant, July 21-August 4
- John Richards - Assistant, August 5-20
- Paul Petrich - Vessel Operations Supervisor, August 1-2
- Tom Jow - Biologist, August 10

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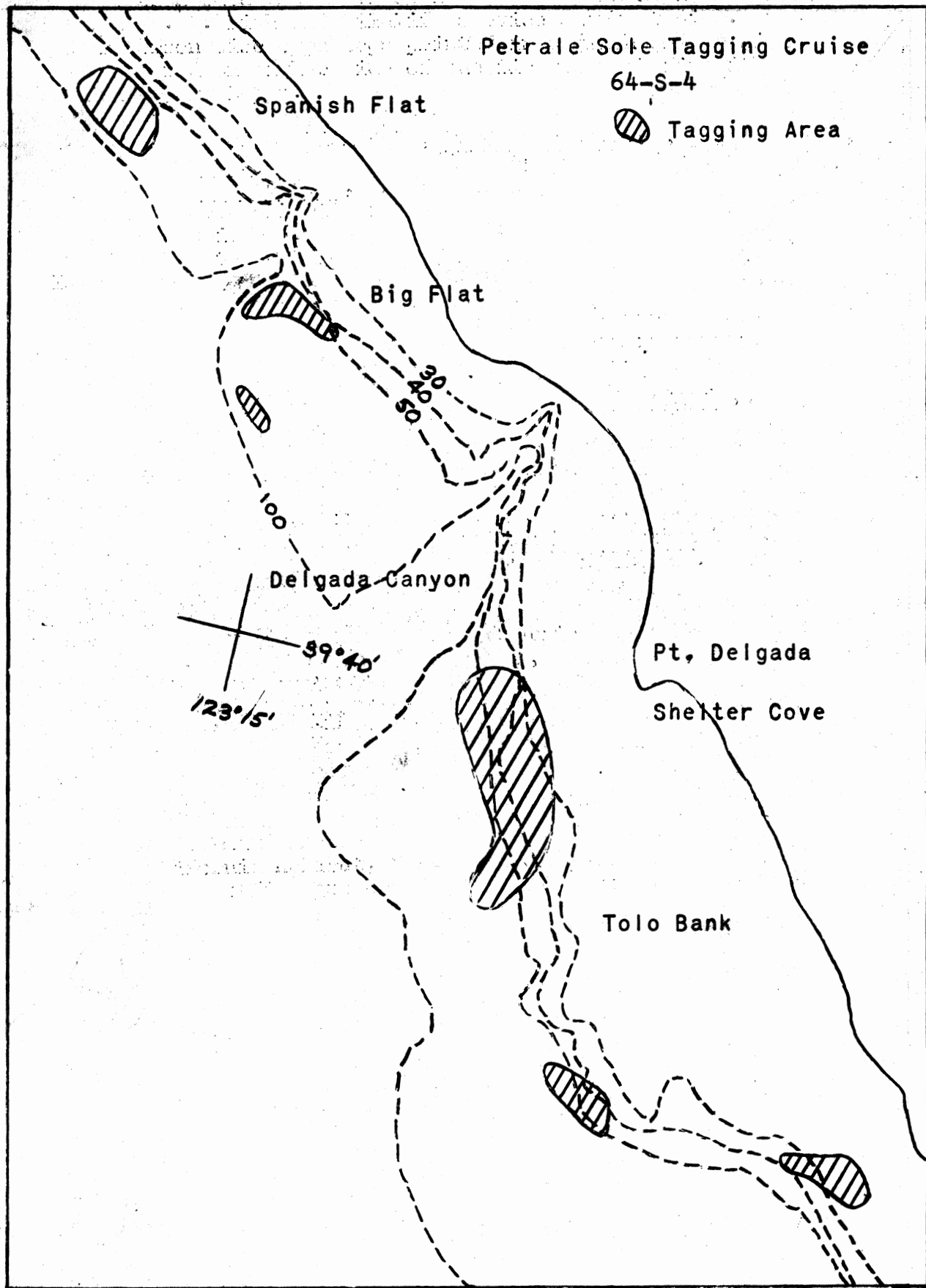


Figure 1

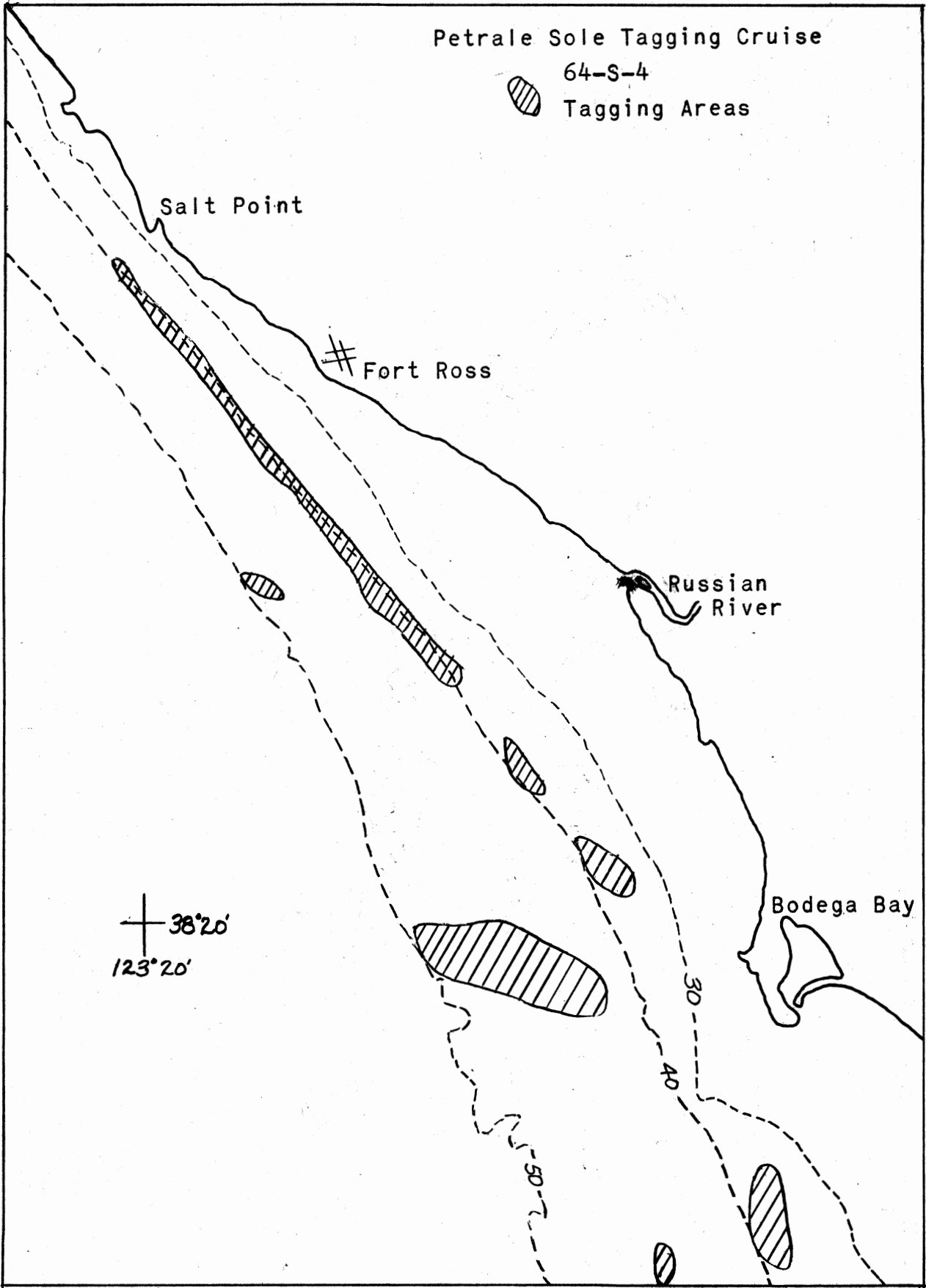


Figure 2