

Department of Fish and Game  
Marine Resources Region  
Long Beach, California

CRUISE REPORT 71-S-2 PRAWNS

Prepared by Nancy E. Nelson

- Vessel: N. B. SCOFIELD.
- Dates: Depart San Pedro, March 24, 1971.  
Return San Pedro, April 20, 1971.
- Areas: Coastal waters from Usal to the Oregon border.
- Objectives:
1. To conduct exploratory fishing to determine the distribution and abundance of spot prawns, *Pandalus platyceros*, and coonstripe shrimp, *Pandalus danae*.
  2. To determine size, sex, and weight of prawns and shrimp from all areas.
  3. To conduct exploratory fishing for ocean shrimp, *Pandalus jordani*, in the Usal-Westport area.
- Operations: Three canyons, the Eel, Mendocino, and Mattole were fished for spot prawns; Spanish and Delgada canyons had to be omitted due to bad weather. At each canyon, six strings of traps were set perpendicular to the 100 fathom contour line. Depths ranged from 70 to 112 fathoms (Figure 1).
- Five shallow rocky areas from St. George Reef to Tolo Bank were fished for coonstripe shrimp. Again, six strings of traps were fished in each area, and an effort was made to set the gear in as many different depths as possible. Salted rockfish carcasses were used as bait for both spot prawns and coonstripe shrimp; squid was not used, since it had proved to have no effect on the catch when used with rockfish in the La Jolla area.
- Due to poor weather conditions and a very unfavorable forecast, the cruise was terminated four days early, and only two drags were made in the Usal-Westport area for ocean shrimp (Figure 2).
- Results: From the 18 stations fished in the three canyons, only two spot prawns were caught, and these were both taken at Mattole Canyon. It is possible that the two more southerly canyons, Spanish and Delgada would have yielded better results, but it certainly appears that commercial-sized populations of spot prawns do not exist in the areas fished.

No coonstripe shrimp were caught at the Redding Rock Station and only traces (2 or 3 shrimp) were caught at St. George Reef, Patrick's Point, and Tolo Bank. At False Cape, 35 shrimp weighing a pound were caught in 48 traps. Of these, 66 percent were females and the remainder males. Thirty-five percent of the females were gravid.

One to two pounds of ocean shrimp were caught at Patrick's Point, Redding Rock, and at St. George Reef. Counts per pound for the three areas ranged from 70 to 73, with 98 percent of all shrimp being females. Approximately 30 percent of the females were gravid. Depths ranged from 29 to 41 fathoms.

One of the two tows made in the Usal-Westport area caught approximately five pounds of ocean shrimp with the following age composition: I - 85%, II - 9%, III - 6%. Count per pound was 190. This was a considerably better showing than anything encountered last year, and it is unfortunate that more tows could not be made in the area.

Personnel: Anthony Black, Vessel Captain  
N. E. Nelson, Biologist-in-charge  
C. Blunt, Biologist  
J. Span, Seasonal Aid

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