

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

CRUISE REPORT 74-KB-15 LOBSTER INVESTIGATIONS

Prepared by Robert A. Hardy

Vessel: R/V KELP BASS

Dates: May 20-22, 1974

Locality: Santa Catalina Island

Purpose: 1. To collect California spiny lobster, *Panulirus interruptus*, for life history studies and marking.
2. To evaluate escape ports in commercial traps.

Procedure: Trapping for lobster was conducted in areas of suitable lobster habitat in the vicinity of Isthmus Cove utilizing both commercial traps (2- x 4-inch mesh) and small-mesh (1- x 1-inch and 1- x 2-inch) traps. Traps were fished at depths ranging from 6-21 m (20-70 ft). All lobster caught were measured and sexed and all those from 48-111 mm (1.9-4.4 inches) carapace length were marked with coded tail punches corresponding to 3 mm (0.12 inches) CL size groupings.

Lobsters of known size were placed in four commercial traps fitted with different size escape ports. To evaluate escapement the escape ports were all 6.0 cm (2 3/8 inches) high and ranged from 9.8-14.0 cm (3 7/8-5 1/2 inches) in width.

Results: Two nights of trapping, with a combined total of 90 trap-sets pulled, resulted in a total catch of 336 lobster. Marked recaptures accounted for 27.7% of the catch and 217 were new captures. The new captures were marked and all were released in the general area of capture. None of the recaptured lobster had moulted since being marked. Female lobster comprised 50% of the catch and 61% of these were ovigerous.

A total of 51% of the sublegal sized lobster placed in test traps escaped; however, this was not felt to be adequate and we plan additional tests on future cruises.

Personnel: M. Mazarovich, Vessel Captain
R. Hardy, Biologist-in-charge
M. Odemar, Biologist
C. Haugen, Biologist