

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

CRUISE REPORT 74-KB-9  
LOBSTER INVESTIGATIONS

Prepared by Robert A. Hardy

Vessel: R/V KELP BASS  
Dates: March 20-22, 1974  
Locality: Santa Catalina Island  
Purpose: 1. To collect 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 ft x 4 inch mesh) and small mesh (1 inch x 2 inch and 1 inch x 1 inch) traps. Traps were fished at depths ranging from 20 to 70 ft. All lobster caught were measured and sexed and all those between 48 mm and 111 mm were marked with coded tail punches corresponding to 3 mm carapace length (C.L.) size groupings.

Lobsters of known size were placed in four commercial traps fitted with escape ports measuring 11½ inches x 2-3/8 inches. The traps were then soaked overnight to evaluate escape-ment of sublegals.

Results: Two nights of trapping, with a combined total of 79 trap sets pulled, resulted in a total catch of 184 lobster. One hundred forty eight new captures were within our marking size range and 30 were recaptures, (16.4%). The new captures were tail punched and all were released in the general area of capture. None of the recaptured lobster had molted since being marked.

The number of plastered females has increased from 5% to 77%, in January and February respectively, to 95% of the females captured during this cruise.

The four test traps with escape ports functioned well with an 83% escapement of sublegals while all legals were retained. Testing with modifications of the escape port will be conducted during future cruises. Moray eels (*Gymnothorax mordax*), caught incidentally in the traps, were retained for future study by personnel from the Central California Marine Sport-fish Study.

Personnel: M. Mazarovich, Vessel Captain                      R. Bell, Biologist  
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