

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

CRUISE REPORT 73-KB-18 ABALONE

Prepared by Richard Burge

Vessel: KELP BASS

Dates: August 7-11, 1973

Locality: Nearshore waters of San Clemente and Santa Cruz Islands.

Purpose:

1. To tag pink and green abalones for life history studies and to inspect new areas for survey and release of tagged abalones.
2. To obtain data on abalone condition, behavior, competition, predation and on environmental conditions.
3. To inspect China Cove and Pyramid Head for mortalities due to tagging.

Procedure: Scuba divers picked abalones in pre-selected study areas. Abalones were brought aboard the vessel, tagged and measured for length and width. Notes were taken on each abalone concerning growth and general condition. Tagged abalones were then returned to their original area whenever possible and planted on a clean abalone or urchin scar.

Results: A total of 251 green abalone was planted in 20-25 foot depths at China Cove and San Clemente Island. Mortality of tagged abalone appeared to be low as there was a scarcity of the predators which had caused extensive mortality on previous occasions. Abalones were also less tightly attached and easier to pick without damage. They reattached quickly when planted.

Moderate swell and bottom surge prevented work in shallow water where the largest numbers of green abalone were located. Conditions had not changed by August 9 so we moved to the lee of Santa Cruz Island to tag pink abalones.

A total of 588 pink abalone was tagged and planted inside Gull Island, just off Santa Cruz Island. An additional 183 pink abalone were badly cut during capture and were not tagged.

Fifty-eight lightly cut pink abalone were tagged however, and are included in the total of 588. Following replanting, 66 pink abalone (11.2%) were lost due to predation by sheephead, *Pimelometopon pulchrum*.

Large numbers of sheephead and other carnivorous fishes swarmed about divers during planting operations. To reduce fish predation, abalones were either planted deep in protective crevices or were covered by boulders until firmly reattached. However, large sheephead were often successful at detaching abalones.

Personnel: D. Carvalho, Vessel Captain
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