

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

CRUISE REPORT 72-KB-8

SPORTFISH-KELP HABITAT PROJECT DJ F-27-R
and
INSHORE FISHERIES HABITAT EVALUATION AND MONITORING

Prepared by Peter L. Haaker

Vessel: KELP BASS

Dates: April 18-21 and April 24-28, 1972

Locality: Pt. Loma kelp bed, San Diego County.

Purpose:

1. To mark and pre-survey areas to be quicklimed by Kelco Co. on April 25-27, 1972.
2. Observe liming operations.
3. Survey limed area: to determine effects of liming on benthic communities.

Results: Biologist-divers set up a total of seven band transects 30m long in two of the four areas to be quicklimed by Kelco Co. Photographic reconnaissance and band transects were hampered by generally poor visibility and considerable bottom surge.

A third area was pre-surveyed by Dr. Paul Dayton and Mr. Rick Rosenthal of Scripps Institute. Cages containing various echinoderms and young (1-5mm) red abalone were placed in this area.

The fourth area was not surveyed due to poor visibility and heavy surge.

Liming was stopped in one area after half a load had been dumped, to allow divers to observe the immediate effects of the lime on benthic organisms.

Liming had a definite effect on echinoderms. Urchins, starfish, sea cucumbers, and an occasional brittle star were in distress and being rolled along the bottom by the surge. Many other invertebrates apparently reached to the lime, but any detrimental effects were not immediately discernable. Fishes were seen in the liming area with hydrolyzed lime (CAOH) on their backs, but were apparently not affected.

Divers inspected the area again after liming, noting similar effects.

Some areas were revisited a day later. Urchins had reattached to the substrate, but most had apparent lime damage. Starfishes had reattached, but many dead sea cucumbers were found. Most other invertebrates seemed to be unaffected by the lime.

We plan to revisit the limed areas again and assess the long term effects of liming operations.

Personnel:

Marco Mazarovich, Vessel Captain
Peter Haaker, Biologist
Dan Odenweller, Biologist
Dick Moe, Biologist
Bob Hardy, Biologist (April 19, 20, 24 and 25)
Mel Odemar, Biologist (April 26, and 27)

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