

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

CRUISE REPORT 72-S-4 BIG GAME FISH INVESTIGATIONS

Prepared by Robson A. Collins

Vessel: N. B. SCOFIELD

Dates: May 30 - June 16, 1972

Locality: The nearshore waters of Baja California from the U.S. border to Magdalena Bay and waters surrounding Guadalupe Island.

- Purpose:
1. To capture, tag, and release Pacific bonito (*Sarda chiliensis*) and California yellowtail (*Seriola dorsalis*).
 2. To collect specimens of Pacific bonito, California yellowtail, California barracuda (*Sphyraena argentea*) and white seabass (*Cynoscion nobilis*) for population analysis.
 3. To tag and release Pacific mackerel (*Scomber japonicus*) and jack mackerel (*Trachurus symmetricus*) taken incidentally.
 4. To make incidental collections as requested by other investigations.

Procedure: Trolling with Feather and "Hexhead" lures was conducted during daylight hours. Trolling speeds varied from 6 to 10 knots with most trolling done at 7 knots and with 7 lines. Still fishing, using live bait and lures, was conducted over prominent banks, near islands and in areas where trolling showed fish to be present. Nightlight stations were established whenever the vessel anchored for the night. Gill nets with various size mesh were fished in selected locations.

Results: A total of 193 bonito was tagged and released, 58 near Guadalupe Island, 25 off Pequena and 110 between Cedros and San Benitos Islands. Incidental catches between Cedros and San Benitos Islands resulted in the release of 4 tagged yellowtail. No Pacific or jack mackerel were taken on the cruise.

All bonito were taken on trolled lures. Several attempts to capture them by stillfishing with lures and live bait failed. We found no concentrations of bonito during daylight hours. They appeared to be wide spread in all areas of capture.

Water temperatures varied between 13.5°C at Santa Rosalia Bay and 20.0°C at the entrance to Magdalena Bay. Temperatures close to shore along most of the peninsula were low (14-16C). No bonito were captured in waters of less than 16.7°C nor more than 19.5°C.

Gill nets set at Guadalupe Island and in Magdalena Bay for young white seabass produced only gulf and California barracuda, (*S. lucasena* and *S. argentea*) and horn shark (*Heterodontus francisci*).

Collections of larval fish made with the aid of night-lights are still being identified.

Personnel:

- A. "Pat" Pascal, Vessel Captain
- Robson Collins, Biologist-in-Charge
- Brian Thayer, Biologist
- Jesus Camacho, Biologist, I.N.P. Mexico

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