

FISH COMMISSION OF OREGON
GROUNDFISH & SHRIMP INVESTIGATIONS

Report of Cruise 73-2 , Shrimp

VESSEL: M/V Christopher M, commercial shrimp trawler

DATES: June 8-9, 1973

OBJECTIVE: To observe fishing operations of double-rigged shrimp boat and record operations on film.

METHODS: The vessel is a steel boat built for salmon and tuna trolling at Portland in 1971, 58 feet long, about 50 gross tons. It has a GM diesel engine, 240 hp. It was modified for double-rigged shrimp trawling in the spring of 1973, and has hydraulic deck equipment, including winches, booms, etc. A large sorting table is set aft; the vessel (like all double riggers) has no net reel. It has an enclosed head and shower and a small refrigerator.

Two sets of wood otter doors (40" x 9'), two 57-foot Marinovich semi-balloon trawls (nylon 1½-inch mesh), tickler chains, and single warp V bridles made up the fishing gear.

RESULTS: Twelve simultaneous tows were made during the trip, seven on June 8, five on June 9, ranging from 40 minutes to 90 minutes duration in 79-110 fathoms off the Siletz River. Catches ranged from 200-1500 pounds; a total estimated catch of 8,900 pounds was delivered, along with perhaps 500 pounds of fish, mostly *Sebastes flavidus*. Catch/hour was 589 pounds (trip); 519 the first day, 653 the second. First-day tows were made in depths mostly over 90 fathoms, second-day tows in 79-80. The first day was mostly cloudy; the second mostly sunny. Apparently, the shallower depth was more productive; the last tow of the first day produced the only good catch of the day in 80 fathoms (the only tow less than 90 fathoms).

Color photographs were taken of fishing operations.

Booms were extended horizontal to the ocean interface and the doors and net let out from each boom simultaneously to the depth desired. Doors were attached directly to the trawl pigtails and a ¼-inch tickler chain attached to each door. Apparently, the nets fish very close together; the inside doors of each trawl had abrasions which the crew attribute to their rubbing together under tow. Scope was identical for each trawl. The nets are brought in simultaneously; the doors brought up to the end of each tow-boom; one net is then hooklined (using "lazy-lines") and the codend brought aboard over the side of the boat and emptied onto the sorting table. The other net is then processed similarly. Both nets are immediately shot again and sorting of the catch done during the next tow.

The only time the doors were brought aboard the vessel was at the end of the day's fishing.

Catches of each net appeared to be very similar on all tows, although a crewman said he thought the port trawl was catching about 10% more per tow consistently based on visual estimates of the loaded codend.

PERSONNEL: Jack G. Robinson, Aquatic Biologist
Ken Martinson, Vessel Captain
John Ivany , Crewman
Rick Kiser, Crewman

Jack G. Robinson
Management & Reserach Division
June 19, 1973