

REVIEW OF THE PELAGIC WET FISHERIES During the 1960-61 Season

SARDINE

The 27,000 ton sardine catch of the 1960-61 season was approximately 10,000 tons less than the relatively poor preceding season. The catch has been lower in only three other seasons during the 45 year history of the California fishery.¹ These seasons were 1952-53 (5,711 tons), 1953-54 (4,492 tons), and 1957-58 (22,272 tons).

The small catch did not come as a complete surprise to industry members. A pre-season prediction of fewer than 30,000 tons had been given by CalCOFI scientists before the Marine Research Committee on July 26, 1960.

The season officially began on August 1 for central California and September 1 for southern California and closed for both areas on December 31. Sardine and mackerel prices were established at \$35 per ton. This was the same as was paid for sardines the preceding season but was a decrease of \$15 for the mackerels.

Fishing was poor off central California. Although some sardines were caught off Monterey and Cape San Martin in August, the boats shifted operations to southern California in the latter part of September and little scouting effort was expended in central California during the remainder of the season where landings eventually totaled only about 2,000 tons.

Fishing started promptly when the southern season opened but the catches were poor and became progressively poorer during the season. In general, the weather was good, but the exposed location of many of the offshore fishing areas made fishing somewhat difficult. The southern California fleet landed about 25,000 tons of the statewide total of 27,000 tons.

Southern California catches originated farther off shore than has been usual in most previous seasons. Two locales, the Santa Cruz-Anacapa-Santa Rosa Island area and the San Nicolas Island area, produced the bulk of the catch. Lesser amounts were netted in the vicinity of Point Dume, Santa Monica Bay, Santa Catalina Island, San Clemente Island, and Cortez Bank. Landings from the inshore Long Beach-Seal Beach area were small. Throughout the season most individual boat catches were small, but an occasional boat netted 100 tons in one or more sets.

Sardine load limits as low as 40 tons were established early in the season, but these were raised to 100 tons, and at times limits were completely removed. A 20 ton mackerel limit remained in effect throughout the season. Many catches were mixtures of sardines and mackerel.

The number of vessels in the California sardine fleet was the smallest in over 30 years. It consisted

of 108 boats: 58 large purse seiners (60 feet and over) and 50 small purse seine or lampara boats. This was a decrease of 20 vessels from the preceding season. During the season, 12 large and two small purse seiners fished off both central and southern California, 15 lampara boats confined their sardine fishing activity to the Monterey Bay area, and 33 small boats fished only in the southern region.

Fish sampled at San Pedro ranged from 170 to 250 mm in standard length, with a mode at 218 mm. The average weight per fish was 0.27 pounds or approximately four fish to the pound. During recent years sardines have averaged five to the pound. Fifty-five percent of the fish were three-year-olds, 22 percent were two-year-olds, and 20 percent four-year-olds.

ANCHOVY

Cannery and fresh-fish market landings of anchovies continued the downward trend of the last decade, with only 2,500 tons delivered. By comparison, 3,600 tons were landed in 1959 and 5,800 tons in 1958. These low catches have reflected market conditions rather than a shortage of anchovies.

As in other recent years most of the 1960 catch was taken off southern California. About 70 percent of the deliveries were netted in the Long Beach-Los Angeles-Santa Monica area, and 25 percent from the Monterey-Moss Landing area. In addition to the market landings, an estimated 5,000 tons were netted for live bait, making a total of 7,500 tons of anchovies utilized in 1960.

As in 1959, the live bait catch consisted of the small "pinhead" (fish of the year) and fish in their second year of life. No significant live bait catches of juvenile sardines were reported during the year.

MACKEREL

The 21,000 tons of Pacific mackerel caught during the 1960-61 season closely approximated the preceding season's landings. The 25,000 ton jack mackerel catch was 8,000 tons less than that of the previous season.

During the preceding year, fishermen received \$50 per ton for both species. Most cannery processors lowered the price from \$50 to \$35 per ton in April 1960; however, pet food processors continued to pay \$50 through August 1960. The \$35 per ton price prevailed until March 1961 when it was raised to \$42.50.

Catches originated around the off shore islands with the San Clemente area yielding a major portion; lesser amounts came from around Santa Barbara Island and Santa Cruz Island. The bulk of the catch of both species consisted of fish three years old or younger. *Doyle E. Gates. California Dept. of Fish and Game.*

¹ For a complete catch report, see *California Cooperative Oceanic Fisheries Investigations, Reports*, 8, January, 1961.