

History of Trawling off the Pacific Coast

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Trawling began on the Pacific Coast in 1876, when the paranzella net, or two boat trawl, was introduced in San Francisco Bay and towed by lateen-rigged sailing vessels. This method successfully produced larger catches than those by other fishing gear of the era, so trawling became prevalent in the Bay. During the 1880's, steam-powered vessels began to replace sailing vessels. By 1888, paranzella gear was fished exclusively by paired steam vessels.

In 1906, San Francisco Bay was closed to trawling; the reason given was declining fish stocks. By this time paranzella fishing had expanded to open ocean areas outside of San Francisco Bay.

In 1884 a small vessel began fishing with a beam trawl, the first type of trawl gear used off the Oregon-Washington coasts. The beam trawl was an effective fishing gear that could be towed by a single vessel. The otter trawl was introduced as early as 1908 but was not used on a regular basis until 1926, when two vessels began fishing the protected waters of Puget Sound. Diesel engines became available during the 1920's, as did other technological advances, which stimulated rapid growth and expansion of the trawl fishery.

World War II created a high demand for food fish and for shark livers used in the production of vitamin A. One trawler told me he took out a 30 horse-power engine and installed a 40 horsepower engine when he converted his vessel to a trawler in 1939. Needless to say, modern vessels have considerably more power. This same vessel is still trawl fishing off of Oregon and has about 350 horsepower today.

After World War II the military slowed down their use of fish as many people were discharged and went home. The demand for shark livers had gone away because scientists learned how to synthesize vitamin A, and markets for these products became harder to find. However, the use of fish as animal food began about this time and for many trawlers this was a very lucrative market. Some frames (the remainder after a fish has been filleted) are still used as an ingredient in some animal feeds. The trawl fishery expanded to many productive offshore grounds off California, Oregon and Washington, and by 1944 Washington trawlers were fishing as far north as Queen Charlotte Sound, Canada.

In June 1978 large productive trawl grounds in British Columbia, Canada were closed to U.S. fishermen. This action forced many Washington fishermen to switch to fishing in U.S. waters (primarily off of the Washington coast). Evaluation of the impact on the fishery and stocks has not been completed, but certain stocks (for example Pacific Ocean Perch) have been affected. Competition among vessels for fishing grounds increased significantly. Some grounds were opened off British Columbia to a limited fishery for two years, in the early 1980's. This was part of a settlement between the U.S. and Canada, in exchange for Canada's phasing out its halibut fishery off Alaska.

Foreign fishing began off the coasts of Washington, Oregon and California in 1962, when Japanese and Soviet exploratory vessels appeared as an extension of their newly developed trawl fisheries in the Gulf of Alaska. Shortly thereafter, Japanese trawlers began fishing regularly for rockfish, primarily Pacific Ocean perch. The Pacific Ocean perch resource off the Pacific Northwest is small relative to that originally found in more northern and westward areas; rarely did more than a dozen Japanese trawlers operate in the Washington, Oregon, California area. Most of their effort was off of Washington and Oregon. Japanese perch catches peaked in 1968 at about 8,000 metric tons (mt) and subsequently declined to a few hundred mt.

The Soviets started fishing in earnest in 1966 for both rockfish and Pacific whiting. This was the first major foreign fishery to occur off the West Coast of the contiguous United States. The Soviets reported their catch of whiting as 136,000 mt and 24,000 mt of perch in 1966. Soviet perch catches also declined rapidly, and under the terms of a U.S.-Soviet bilateral fisheries agreement, the USSR agreed to discontinue targeting perch or fishing in known perch areas. According to the Soviets their catch of whiting peaked in 1970 when they took about 226,000 mt. (but there is reason to be skeptical of their numbers). They maintained they were taking about 10% rockfish in their whiting fishery, but it was difficult to get an accurate breakdown of their catch. The Soviets agreed to limit their catch of whiting to approximately 150,000 mt from 1973-1976. While I am told that they filleted a good share of the catch in the beginning, the whiting fishery became a headed-and-gutted and frozen fishery

for the Soviets. From 1973 through 1976 fleets from the Republic of Korea, Poland, East Germany, West Germany and Bulgaria operated in the Washington, Oregon, and California region.

With the advent of the 200 mile Exclusive Economic Zone (EEZ) legislation on the horizon, domestic trawl fishermen began to ramp up their catch as they could sell more fresh fish in California. Shoreside non-whiting landings peaked for the domestic fleet in 1983 at 107,400 mt of groundfish, but by 1999 landings of non-whiting groundfish had declined to 38,100 mt. This has happened for several reasons, the major one being the change in stock management. The fishermen have stayed within the optimal yields (OY's) over the years as set by the Pacific Fishery Management Council. Management was either wrong then or it is wrong now.

Starting in 1977 Poland, the USSR, and Mexico applied for and received permits to fish within the U.S. EEZ off Washington, Oregon, California. Foreign allocations ranged from 123,000 mt to 161,400 mt of whiting, and 4,000 mt to 3% of the whiting allocation of jack mackerel. Other species were taken only incidentally. Starting in 1979 jack mackerel as well as other species were only allocated on an incidental basis. In September of 1978 a U.S.-USSR joint venture began for Pacific whiting. Two U.S. trawlers delivered about 900 mt to two USSR trawler processors during the six week fishery.

In March of 1983 a member of the groundfish management team made the following prediction for the fishery in 1990: the groundfish fishery in 1990 would have three major user groups: harvesters, processors and managers. The total weight of catches sold by domestic harvesters would be nearly 300,000 mt--150,000 mt of Pacific whiting, 85,000 mt of rockfish, 15,000 mt of sablefish, 15,000 mt of Dover sole and 25,000 mt of other groundfish. The Pacific whiting OY would be 205,000 mt. In 1990 84% of the ex-vessel value of the catch would come from the following: 35% rockfish; 17% Pacific whiting; 14% Dover sole; 12% sablefish and 6% petrale and English sole. Hardly any of these predictions have come true, except for the OY for whiting.

The Scientific and Statistical Committee Economic Subcommittee of the Pacific Fishery Management Council's recent report on the groundfish fishery indicates that revenues from West Coast groundfish have dropped 47% in constant 1999 dollars from 1983 (\$100.2 million) to 1999 (\$52.9 million). Shoreside non-whiting landings have dropped 65% from 1983 to 1999 (1983: 107,400mt to 1999: 38,100mt). Rockfish landings are down 78%, and revenues down 69%; flatfish landings are down 41%, with revenues down 73%.

Further data from this report shows that the number of fixed gear vessels declined from 245 in 1994 (the year limited entry fishing began) to 236 in 1999, and from 384 to 264 for trawl gear. Catcher processor vessels increased from 0 to 10 (all in the whiting fishery) during the same period.

Current capital utilization rates are exceedingly low for all sectors, with the fixed gear sablefish fleet at 9%, the fixed gear non-sablefish fleet at 12%, the limited entry shoreside trawlers at 27-41%, and open access vessels at 6-13%.

Compared to where we were, it's not entirely a bright picture.