

# Groundfish: Overview

More than 80 species of marine fish are included under the Pacific Coast Groundfish Fishery Management Plan (FMP) that was adopted by the Pacific Fishery Management Council (PFMC) in 1982. In general, the FMP provides for management of bottom dwelling finfish species (including all rockfish and whiting) that are found in U.S. EEZ waters off Washington, Oregon and California. Of these, fewer than 20 of the commercially and recreationally most important have ever been comprehensively assessed. Each year, stock assessments are conducted on five to 10 species, typically as part of a three-year rotation. Only Pacific whiting is assessed each year. Species and species groups that are actively managed under the FMP are: "Minor rockfish" (which includes most rockfish); Pacific Ocean perch; sablefish; thornyheads; Dover sole; whiting; canary rockfish; widow rockfish; yellowtail rockfish; bocaccio; chilipepper rockfish; cowcod; darkblotched rockfish; splitnose rockfish; and lingcod.

Groundfish management is complicated and demanding because fisheries for many of the species are inter-related, but the various stocks have responded differently to fishing pressure. For example, flatfish populations such as Dover, Petrale, and English soles have been subjected to significant commercial fisheries for decades, yet have not shown the magnitude of declines that have occurred in some of the rockfish populations.

The current status of many rockfish and lingcod off the west coast is poor, and significant changes in the groundfish fishery have been necessary to address this situation. There are over 60 different species of rockfish in California. Formal assessments of these fish populations are challenging, due to the number of species and the large commitment of time and effort to conduct the necessary research and analysis. To date, 15 rockfish species have been formally assessed, and the results are not encouraging. Nearly all of these species are currently below optimal abundance levels. Lingcod and six rockfish species, including four that are important to California anglers and commercial fishermen (bocaccio, canary rockfish, widow rockfish and cowcod), are at such low levels (estimated at or below 25 percent of the pristine population of each species) that they have been declared overfished by the PFMC. Federal law requires that steps be taken to rebuild overfished stocks under strict guidelines that place an emphasis on a reasonable likelihood of achieving success within specified time periods for each species.

Several factors affect the abundance of rockfish and lingcod and the ability to manage them effectively. Recent analyses have shown that rockfish stocks are not as productive as previously thought. This is due in part to

improved information about rockfish life history (such as age, growth, and reproduction), better stock assessments and environmental conditions that generally have not been favorable to rockfish reproduction or survival for many years. As a result, rockfish cannot support harvest rates as high as previously thought. Management is further complicated because the habitats and ranges of many rockfish species overlap, so that it is difficult to catch one species without catching other species at the same time. Fishing must be reduced for an entire group of rockfish in order to realize lower catches that are necessary to rebuild overfished stocks. For example, although a few shelf rockfish species such as chilipepper and yellowtail appear to be comparatively healthy, their allowable harvest has been set at levels below the potential yield to protect the weaker species of shelf rockfish that tend to be caught with them, such as bocaccio and canary.

Prior to 2000, the allowable catch of all rockfish in the PFMC's southern management area for rockfish (most of California) was combined into a single quota. To better align fishing opportunities with the resources that support them, fishery managers have grouped rockfish into three new categories - nearshore, shelf, and slope. In addition, management has been refined by setting individual quotas for a few species, which reduces the aggregate quota for other remaining rockfish species. While this approach lowers the harvest of overfished rockfish species, such as bocaccio, it also reduces the opportunities for nearshore species that are no longer grouped with certain deepwater species that are typically under-harvested.

No individual sector is responsible for creating the current situation. For example, since 1982 commercial landings accounted for about 56 percent of all lingcod and about 81 percent of all rockfish catches in California, while the recreational fishery took the remainder. In order to return depressed rockfish and lingcod stocks to a healthy condition, everyone has been asked to share in the conservation measures needed for recovery. For the recreational fishery, bag limits have been reduced, gear restrictions imposed, seasons closed, and minimum size limits established. In the commercial fishery, the aggregate rockfish quota for 2001 was reduced by about 57 percent compared to 1997, and the allowable commercial lingcod landings were reduced by about 83 percent during the same period. Rockfish rebuilding plans call for decades of ongoing special efforts to allow the overfished species to recover, while lingcod is more prolific and is expected to be restored much more quickly, by 2009. Although the lingcod stock seems to be responding favorably to the initial stages of the rebuilding plan, it will be important to coordinate lingcod and rockfish management because they are found on the same fishing grounds and are often caught together.

A total of about 1,900 businesses in California are directly affected by commercial groundfish catch regulations. Most of the affected businesses are fishing vessels. There are approximately 1,580 commercial fishing vessels in California that catch and sell groundfish as part of their operations. That fleet is comprised of two main elements -- the limited entry fleet and the open access fleet.

Vessels in the limited entry fleet have a federal permit that gives greater rights concerning the harvest of groundfish. Consequently, vessels with limited entry permits generally rely heavily on groundfish as a major source of income. There are 288 limited entry vessels in California.

Vessels that land groundfish under open access provisions may or may not depend on groundfish as a major source of income. Many vessels that predominately fish for other species also may inadvertently catch and land groundfish. Although 1,295 open access vessels landed groundfish in California during 1997, most landed less than 1,000 pounds. A total of 525 open access vessels each landed more than 1,000 pounds of groundfish during the calendar year. In addition to the commercial fishing fleet, there are approximately 325 wholesale fish buying businesses in California that purchase groundfish from commercial fishing vessels.

The 1999 California commercial groundfish harvest was approximately 34.0 million pounds, with an ex-vessel value of \$19.7 million. This was a 12-percent decline in value from 1998 (\$22.3 million), and the lowest total in

recent history. Groundfish production exhibited a long-term downward trend in landings during the 1990s, with annual landings reduced by roughly 60 percent during the decade. For the first time, rockfish became the most significant element of the groundfish fishery during 1998, when they comprised over 50 percent of the value and nearly 37 percent of the tons landed. Another traditionally important component was the "DTS Complex" (Dover sole, thornyheads, sablefish), which accounted for most of the remainder of the landings. The number of federal limited entry groundfish permits registered to fishermen in California continued a slow decline during 1999 for all three gear types; at mid-season there were 162 vessels with trawl permits, 113 longline permits, and 13 trap permits.

In response to the sharp decline in groundfish landings and the generally poor condition of West Coast groundfish stocks, the secretary of commerce formally announced a disaster determination for the fishery in January 2000. The intent of the declaration was to minimize economic and social impacts on fishing communities while protecting and rebuilding groundfish stocks. Although, the declaration did not include relief funding, it was the first step in the process of securing funds from Congress to assist affected fishermen.

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