



FACT SHEET: COASTAL PELAGIC SPECIES

21

THE FISH

Coastal pelagic species (CPS) are schooling fish that range from very nearshore to the open ocean, and are found near the surface or as deep as 1,000 meters. They are generally small, ranging from about four inches (anchovies) to 24 inches (Pacific mackerel). CPS are sold for human consumption, bait for longline fishing, and feed for tuna aquaculture.

The Council's CPS Fishery Management Plan specifies a management framework for northern anchovy, market squid,

Pacific sardine, Pacific mackerel, and jack mackerel.

In 2006, the plan was amended to prohibit harvest of all krill species in order to protect krill's vital role in the marine ecosystem. In 2010,

the Council added Pacific herring and jacksmelt as ecosystem component species. Ecosystem component species are not generally targeted and not actively managed, but catches and stock status are monitored.

Pacific sardine (*Sardinops sagax*) are small schooling fish. At times, they have been the most abundant fish species in the California current, the highly productive current that extends from Oregon to Baja California. When the population of Pacific sardine is large, it is abundant from the tip of Baja California to southeastern Alaska and throughout the Gulf of California. In the north, sardines tend to appear seasonally.

Sardines form three sub-populations. The northern subpopulation is most important to U.S. commercial fisheries, ranging from southeast Alaska to the northern portion of the Baja Peninsula. The southern subpopulation ranges from the southern Baja Peninsula to southern California, and the third population is in the Gulf of California.

Sardines may live as long as 13 years, but most landed fish are three to six years old. Like anchovies, they are taken by a wide variety of predators. More information on current

Pacific sardine abundance and population trends is available in the current CPS [Stock Assessment and Fishery Evaluation report](#).



Pacific (chub) mackerel

(*Scomber japonicus*) range from

Mexico to southeastern Alaska. They are most abundant south of Point Conception, California, but can range into British Columbia. The "northeastern Pacific" stock of Pacific mackerel is harvested by fishers in the U.S. and Mexico. Like sardines and anchovies, mackerel are schooling fish, and they often school with other pelagic species such as jack mackerel and sardines. While young, they are heavily preyed upon by a variety of fish, mammals, and sea birds. But when larger, they can prey on smaller fish such as juvenile hake and other CPS.

Northern anchovy (*Engraulis mordax*) are small, short-lived fish that are typically found in schools near the surface. They are found from British Columbia to Baja California. Northern anchovies are divided into northern, central, and southern sub-populations. The central subpopulation ranges approximately from the Oregon/California border to Point Descanso, Mexico. The northern subpopulation ranges from the Oregon/California border north to British Columbia and sometimes SE Alaska. Northern anchovy are an important part of the food chain for other species, including other fish, birds, and marine mammals.

Jack mackerel (*Trachurus symmetricus*) are a schooling fish that range widely throughout the northeastern Pacific. They grow to about 60 cm and can live 35 years or longer. Much of their range lies outside Federal waters (more than 200 miles offshore). Small jack mackerel (up to six years of age) are most abundant in the Southern California Bight. Older, larger fish range from Cabo San Lucas to the Gulf of Alaska, where they are generally found offshore in deep water and along the coastline to the north of Point Conception.

In southern California waters, jack mackerel schools are often found over rocky banks, artificial reefs, and shallow rocky coastal areas.

ADVISORY BODIES:

- ◆ **CPS ADVISORY SUBPANEL**
- ◆ **CPS MANAGEMENT TEAM**

FACT SHEET: CPS

The peak spawning season for jack mackerel off California extends from March to July. They do not appear to be an important food source for marine mammals.

Market squid (*Doryteuthis opalescens*) appear from the southern tip of Baja California to southeastern Alaska. They are most abundant between Punta Eugenio, Baja California and Monterey Bay, California. They are harvested near the surface, but they can appear to depths of 800 meters or more. They prefer the salinity of the ocean and are rarely found in estuaries, bays, or river mouths. Squid are short-lived (up to ten months) and are important as forage foods to many fish, birds, and mammals, such as Chinook salmon, coho salmon, lingcod, rockfish, seals and sea lions, sea otters, porpoises, cormorants, and murre. Market squid have huge population fluctuations, sometimes appearing in great numbers and sometimes seeming to disappear almost completely. They are the most valuable CPS stock on the West Coast and are highly sought after.

THE FISHERY AND GEAR

In the 1940s and 1950s, about 200 vessels participated in the Pacific sardine fishery. Some of these boats are still fishing today, but the fleet is much smaller, with less than 60 federal limited entry permit vessels.

Coastal pelagic species are harvested directly and as bycatch in other fisheries. Generally, they are targeted with “round-haul” gear including purse seines, drum seines, lampara nets, and dip nets. These species are also taken incidentally with midwater trawls, pelagic trawls, gillnets, trammel nets, trolls, pots, hook-and-line, jigs, and beach seines.

Market squid are fished at night with the use of powerful lights, which attract the squid to the surface. They are either pumped directly from the sea into the hold of the boat, or caught with an encircling net. CPS species are caught primarily with purse seine vessels. A small amount is landed by beach seine and by hook and line.

Processors and buyers of CPS on the West Coast are located mostly in southern and central California, near the Columbia River port areas of Oregon and Washington, and in Grays Harbor, Washington. Most of the market squid and Pacific sardines caught in the U.S. are exported. Market squid are mainly exported to China, the United Kingdom, Japan, and Spain. Sardines are mainly exported to Japan, where they are used for human consumption and as bait for longline

Date (odd years only)	Pacific Mackerel Management
April	Assessment authors prepare draft assessments.
May	Coastal Pelagic Species Management Team (CPSMT), Coastal Pelagic Species Advisory Subpanel (CPSAS), and public review draft assessments and recommended harvest guidelines.
June	Authors submit final assessments and harvest guideline recommendations for June briefing book. SSC reviews these. Council adopts specifications and management measures for two consecutive fishing years. Commerce implements recommendations.
July 1	Mackerel season begins.
March (of next year)	Council may consider Inseason action to transfer unused incidental set-aside to the directed fishery.

Date	Pacific Sardine Management
February	Authors prepare draft assessments.
March	Draft stock assessment is reviewed by either a full Stock Assessment Review panel (for full assessments), or by the Scientific and Statistical Committee’s CPS Subcommittee (for update assessments)
April	Authors submit final assessments and harvest guideline recommendations for June briefing book. SSC reviews these. Council adopts specifications and management measures. Commerce implements recommendations.
July 1	Pacific sardine season begins.

fisheries; and Australia, where they are used to feed farmed bluefin tuna. A small amount of sardines are sold to the restaurant market. Mackerel are exported to Europe and Asia for human consumption.

MANAGEMENT CYCLE

Pacific sardine and Pacific mackerel are actively managed, meaning they have biologically significant levels of catch, or

FACT SHEET: CPS

biological or socioeconomic considerations requiring relatively intense harvest management procedures.

Management measures are adopted annually. The three other CPS species are “monitored” stocks, meaning fisheries do not require intensive harvest management. They are assessed periodically, and harvest management is not changed on a regular basis. Stocks can be moved from “actively managed” to “monitored” or vice versa.

Management measures, including annual harvest levels, are set for monitored stocks and are only updated as the need arises. The fishing year for monitored stocks is January 1-December 31.

The market squid fishery is largely managed by California, with an April 1-March 31 season.

The fishing year for sardines and Pacific mackerel is from July 1 through June 30 of the following year. The NOAA Southwest Fisheries Science Center (SWFSC) assesses the sardine stock annually, with management measures set at the April Council, ahead of the July 1 start of the fishing year. The SWFSC assesses Pacific mackerel every other year, and the Council sets annual management measures at each June meeting for two years in a row.

PLAN HISTORY AND AMENDMENTS

The current management plan for CPS plan went into effect in 1999. Amendments addressing bycatch and tribal fishing rights, maximum fleet capacity, transfer of limited entry permits, maximum sustained yield for market squid, and allocation were adopted in the years following.

In 2006, Amendment 12 banned commercial fishing for all species of krill in West Coast federal waters. State laws prohibit krill landings by state-licensed fishing vessels into California, Oregon, and Washington.

Amendment 13 established several new fishery management provisions pertaining to the Magnuson-Stevens Act, introducing new fishery management concepts including overfishing levels, annual catch limits, annual catch targets, and accountability measures. Pacific herring and jacksmelt were also added to the FMP as Ecosystem Component Species.

Amendment 14 established an maximum sustainable yield value for the northern subpopulation of northern anchovy, and Amendment 15 addressed protections for unfished and

Date	Allocation formula for Pacific sardine (July 1– June 30)
June 1— September 14	Forty percent of the harvest guideline is allocated coastwide. Any uncaught allocation is rolled into the second period fishery.
Sept 15— December 31	Twenty-five percent of the harvest guideline is released, plus any portion not harvested from the first period. Any uncaught allocation is rolled into the third period fishery.
January 1— June 30	Thirty-five percent of the harvest guideline, plus any portion not harvested from the initial allocation, is reallocated coastwide. Any uncaught allocation is not rolled into the subsequent period.

unmanaged forage fish, and incorporated them as Ecosystem Component species in each of the Council’s four FMPs. This prohibits the development of new directed fisheries on forage species that are not currently managed by the Council, or the states, until the Council has had an adequate opportunity to assess the science relating to any proposed fishery and any potential impacts to our existing fisheries and communities.

COUNCIL STAFF

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