

Fishery Science — Biology & Ecology

Ecosystems Where Fish Live Around Monterey Bay

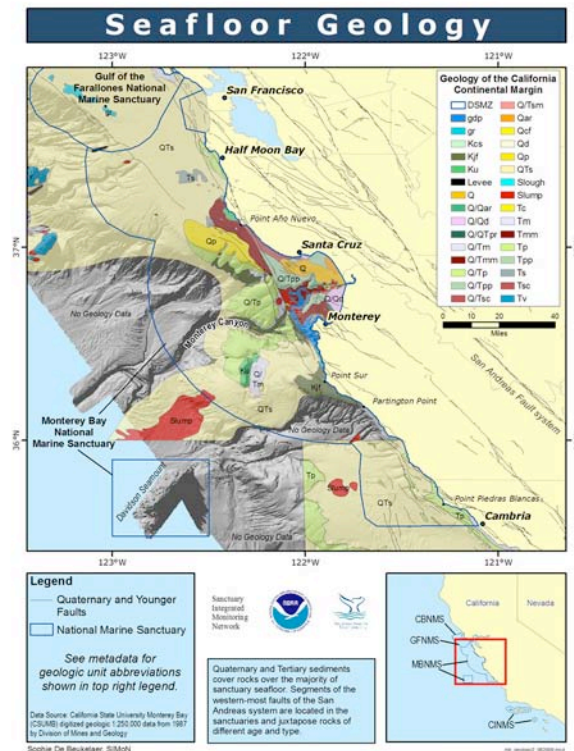


Illustration of the major geology types in Monterey Bay. Source: NOAA Monterey Bay National Marine Sanctuary SIMoN website (<http://www.sanctuariesimon.org/monterey/sections/geology/overview.php?sec=g>)

Nearshore soft bottom habitats (0-40 m depth; 0-131.2 ft) constitute a large portion of the seafloor within Monterey Bay, however this habitat type also is present in the northern part of the **Monterey Bay National Marine Sanctuary (MBNMS)**. The banning of **trawls** and **gillnets** (See Fishing Gear) in this area has limited **fishing methods** to **hook and line** and **surrounding nets** (See Fishing Gear). The majority of **landings** from nearshore soft bottom habitats come from the **Market Squid** (See California Fisheries) **fishery**. However, other **species** like **White Sea Bass**, **Pacific Sardines** (See California Fisheries) and **White Croaker** have all been fished from this habitat.

Nearshore rocky reef and kelp habitats (0-40 m depth; 0-131.2 ft) occur predominantly outside of Monterey Bay to both the north and south along the open coast, but there are also small areas of this habitat within the bay. Due to various regulations, the primary gears used to fish these habitats are **hook and line** and **pots** (See Fishing Gear). Heavy fishing in the 1990s and low species abundances lead to **quotas** for **nearshore** fishes that are currently low, thus **recreational efforts** are much higher in these areas than **commercial** efforts. The primary fish

that are landed from this habitat are [Lingcod](#), [Cabezon](#), and nearshore Rockfish species, like [Blue Rockfish](#).

[Rocky deep shelf and slope habitats](#) (> 40 m depth, > 131.2 ft) are present along the edges of the Monterey Canyon system and typically consist of high relief rock pinnacles, boulders, or walls combined with muddy substrates. Due to the complex topography, the primary fishing gears utilized are [midwater trawls](#), [hook and line](#) and [pots](#) (See Fishing Gear). Although this habitat type can be difficult to fish, it is important to both commercial and recreational fisheries. [Spot Prawns](#) (See California Fisheries) and [demersal](#) Rockfishes, like the [Green-Spotted Rockfish](#), and semi-pelagic Rockfishes, like [Bocaccio](#), contribute to the commercial landings taken from this habitat.

[Soft bottom deep shelf and slope habitats](#) (40-600 m depth, 131.2-1,968.5 ft) are the dominant habitats throughout the MBNMS and dominate the seafloor of the outer areas of Monterey Bay. The composition of the sediment is primarily a combination of mud and silt. [Bottom trawls](#) and [pots](#) (See Fishing Gear) are the primary methods used to catch fish in these habitats. Commercial landings from these habitats contributed to just over 20% of the total landings at ports within and near the MBNMS from 1981-2000. [Spot Prawns](#), [Dungeness Crab](#), [Sole](#) (See California Fisheries) and several species of Rockfish all contribute to the landings from these habitats.

The [open-water or pelagic habitats](#) consist of areas in the water column. The species inhabiting these habitats generally avoid the seafloor and the protection offered from bottom habitats. The types of fish that utilize these waters can be classified into three sub-groups: coastal pelagics, coastal migrants, and pelagic migrants. [Coastal pelagic species](#), like the [Pacific Sardine](#) (See California Fisheries), spend most of their lives near the coast. Coastal migrants, like the [Chinook Salmon](#) (See California Fisheries), are migratory species that spend most of their lives in coastal waters but have migration routes in the open-ocean that take them great distances. Pelagic migrants, like [Albacore Tuna](#) (See California Fisheries), are [highly migratory species](#) that spend most of their lives in the open-ocean away from the coasts.

References

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Additional Resources

Enchanted Learning: Ocean Biomes

(link to: <http://www.enchantedlearning.com/coloring/oceanlife.shtml>)