

COMMERCIAL FISHING OPERATIONS OF THE SANTA BARBARA CHANNEL



Photo:Carolynn S.Culver

Commercial fishing operations use several types of gear, or kinds of equipment, to catch fish. Some operations use nets to fish. There are many kinds of nets that differ in shape, size and how they are operated. They also have different-size mesh depending on where and what they fish. This prevents the capture of juveniles and other types of fish, because they can slip through the mesh. One type of commercial net gear is a trawl net, which has “doors” on

either side of the net that hold the net open in the water while it is being pulled by the boat. Trawl nets can fish at various water depths, including just off the bottom of the sea floor. A second net gear type is a gill net, which sits perpendicular to the surface and to the sea floor. To keep the gill net stretched open, there is a cork line on top that keeps the net up and a lead line on the bottom that keeps the net down. Fish are caught as they swim into the net. A third type of net gear is the purse seine net. Purse seine nets are towed behind the boat and as the boat circles around schooling fish, so does the net. Once the net surrounds a school of fish, it is closed like a purse, the catch is scooped or pumped out of the net into a holding tank

(“fish hold”) on board and the net is then pulled on board. Traps represent another type of commercial fishing gear. They are set on the ocean floor with bait placed in them. Crab, lobsters or spot prawns are caught when they crawl into the trap and take the bait. Commercial fishery participants also use traps to catch finfish, but these traps are a little different from the lobster and crab traps. Since fish swim instead of crawl into the traps, the opening is located higher and near the middle, making it easier for the fish to enter the trap.



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Some animals, such as sea urchins and sea cucumbers, are taken by hand underwater by commercial divers. Divers use a hose that receives air supplied from equipment (an air compressor) on the boat when diving commercially, instead of a tank of air like recreational divers. This surface supply of air allows commercial divers to stay underwater longer because they have more air available.

Hook-and-line gear is also used by commercial fishery participants. This type of gear consists of fishing line with many hooks. Live bait, such as squid or mackerel, or artificial lures are attached to the hooks to attract the fish. The line is either extended vertically in the water column or it lies flat (horizontally) on the bottom of the ocean.

ACTIVITY:

MATCHING GAME
Match the commercial fishing method with the species fished using that method.

Fishing gear

- Trawl **1.**
- Dive **2.**
- Hook and line **3.**
- Purse seine **4.**
- Trap **5.**
- Gillnet **6.**

Species

- a. White seabass
- b. Lobster
- c. Squid
- d. Sea urchin
- e. Halibut
- f. Rockfish

FUN FACT:

How many crew members do local fishery participants usually have on board, not counting themselves?

Answer: One. Many of the local commercial fishing operators use small boats and thus have few crew members (one at most), unlike the large fishing operations often seen on Discovery Channels' "Deadliest Catch." Local purse seine operations are one exception.

