

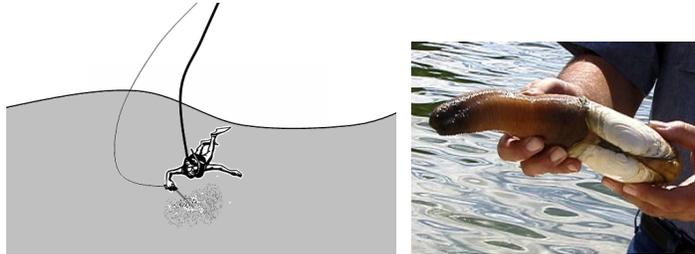
Types of Commercial Fishing Industry Vessels

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Geoduck Dive Boats

Fishing Technique

Commercially *Geoduck* (“gooey-duck”) *clams* are harvested at a depth of 30 to 50 feet below the surface. Divers normally use diving equipment with an air-line rather than scuba gear. Geoducks bury themselves in the sand and are only visible by looking for a breathing or siphon hole. Once located, the diver uses a water nozzle device to blow the silt and sand out of the way to reach the geoduck as it retracts into its shell.



Vessel Description

Geoduck boats are usually any vessel that has enough deck space for the air and water pumps, line and diving equipment.



Target Species

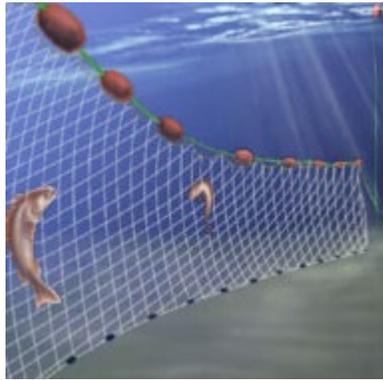
Geoduck are managed by the Washington Department of Natural Resources since the clams are buried in state land. Permits are issued based on tracks of land underwater. Most commercial diving operations are in the southern Puget Sound area. Many areas are owned and fished by tribal members.

Gillnetters

Fishing Technique

Gillnetters operate by setting curtain-like nets perpendicular to the direction which the fish are travelling (set nets). The net has a float line (corkline) on the top and a weighted line (leadline) on the bottom. The mesh is designed to be just large enough to allow the salmon to become entangled at their gills.

- Set nets
- Encircle gillnets
- Drift gillnets



Vessel Description

Gillnet vessels are typically around 30' to 40' long. They are easily recognized by the hydraulic-powered drum onto which the net is rolled. The drum can be located on the stern or bow of the vessel.



Stern Picker



Bow Picker

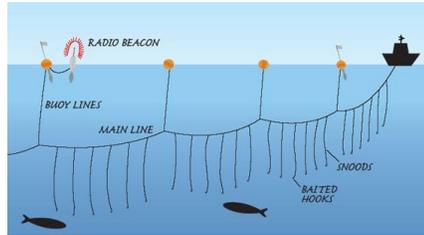
Target Species

In the D13 AOR, the majority of state and tribally licensed gillnetters harvest salmon in Washington internal waters.

Longliners

Fishing Technique

A *Longliner* pays out a long line of baited hooks that are either suspended from floats (pelagic longline) or that lay on the bottom.



Pelagic or Midwater Longline

Bottom Longline

Vessel Description

A *longliner* has an aft house where baiting of the hooks is accomplished. An anchor with a bouyed flag are first passed out of a hatch at the stern, followed by the long line of hundreds of baited hooks. At the end of each string a final flagged buoy marks the end of the string of hooks.

Located slightly forward of midships on the starboard side of the vessel is the hauling station. To pick up the longline, the first flagged buoy is brought into the starboard side of the vessel at the hauling station. Machinery passes the longline back to the aft storage and baiting area. A set of rollers removes each fish from the hook at the hauling station and the fish is sent to the processing area.



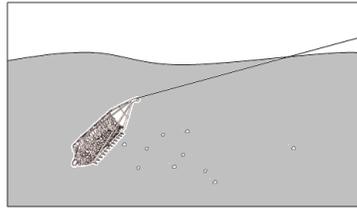
Target Species

In the D13 AOR, longliners can be found targeting all species of Groundfish (including rockfish, flatfish, and finfish) off the entire Washington and Oregon coasts, primarily in the vicinity of major banks and canyons. There are approximately 300 federally licensed longliners on the West Coast, which fish off Washington, Oregon, and California.

Oyster Boats

Fishing Technique

Oyster boats harvest the oysters by dragging a dredge device along the bottom. The dredges are hauled to the deck and dumped.



Vessel Description

Oyster boats are usually a flat bottom boat capable of operating in shallow waters, normally in protected waters.



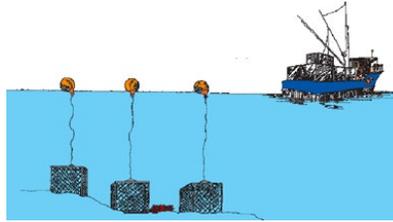
Target Species

In the D13 AOR, the majority of oyster boats harvest oysters in the Puget Sound, Grays Harbor, and Willapa Bay.

Pot or Trap Boats

Fishing Technique

Pot or trap boats drop baited traps to the bottom in order to target bottom fish such as crab and cod. The fish enter the trap to eat the bait then can't find their way back out.



Vessel Description

A *pot boat* is configured such that the pots can be stacked on the deck forward or aft of the house. Fitted on the starboard side of the vessel is a hydraulically powered line hauler device.



Target Species

Dungeness Crab

In the D13 AOR, the majority of pot boats harvest Dungeness crab off the entire Washington and Oregon coasts, primarily within 15 nm of shore, during the winter months. Depending on the status of the Dungeness crab season, anywhere from 150 to 500 commercial crabbers may be active. State and tribally licensed crabbers are also found targeting Dungeness crab in Washington internal waters.

Black Cod

Pot boats also target Black Cod (a.k.a. Sablefish) along the West Coast. The Black Cod fishery has significantly increased in popularity over the past several years due to reduced commercial salmon fishing opportunities resulting from West Coast salmon management restrictions. Much of the Black Cod pot fishery occurs in state waters or within 10 nm from shore.

Seiners

Fishing Technique

Purse Seiners target fish by encircling them with a long net to capture the fish within. A small auxiliary boat is often used to pull the net around the fish and back to the mother vessel. The bottom of the net is then drawn closed (pursed). The boom and power block are then used to hoist the net onto the deck.



Vessel Description

Seiners are configured with a forward house and large aft deck. Located on the aft deck are a large boom and power block and room for the net. On some vessels the net is stored on a drum. The auxiliary boat is often seen riding "piggyback" aboard the vessel's stern while traveling.



Target Species

Sardines

In the D13 AOR, purse seiners are most often found targeting sardines off the Columbia River during the spring and summer months. Although the sardine fishery off Washington and Oregon was relatively non-existent during the 1990's and early 2000's, in the past several years, 15-20 purse seiners have routinely participated in the state managed sardine fishery.

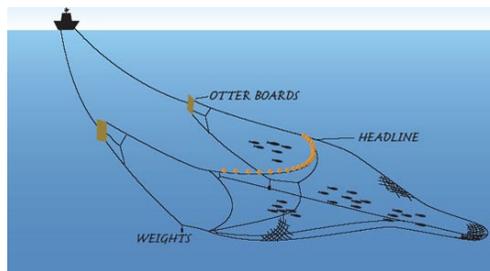
Salmon

A small number of purse seiners can also be found targeting salmon in the Puget Sound and Strait of Juan de Fuca, primarily by tribal fishers.

Trawlers

Fishing Technique

Trawlers pull a large cylindrical net through the water in order to scoop up schools of fish. While the back of the net is closed into an area called the cod end, the forward part of the net is held open by trawl doors that act like wings to pull the sides of the net out. Buoys on the top of the net float up, while weights at the bottom of the net pull down. All of these forces cause the opening to remain wide open. By trawling at various depths specific species can be targeted. Two basic methods used are “*Midwater Trawl*” which is also called *Pelagic* and “*Bottom Trawl*”.



Stern Trawlers

Stern trawlers have trawl nets which are deployed and retrieved from the stern. Larger stern trawlers often have a ramp, though pelagic and small stern trawlers are often designed without a ramp. Trawl doors that keep the mouth of the net open when pulled through the water are stored on either side of the trawlers stern during transiting.



Trawlers (*Continued*)

Side Trawler

Side trawlers have the trawl deployed over the side. The best example of this method is utilized by shrimpers.



Target Species

Bottom Trawlers

In the D13 AOR, bottom trawlers can be found targeting all species of Groundfish (including rockfish, flatfish, and finfish) off the entire Washington and Oregon coasts, primarily in the vicinity of major banks and canyons. There are 176 federally licensed trawlers on the West Coast, which fish off Washington, Oregon, and California.

Mid Water Trawlers

In addition to participating in the general Groundfish fishery, which is open year round, approximately 40 mid-water trawlers also participate in the Pacific Whiting Regular Season from spring to fall.

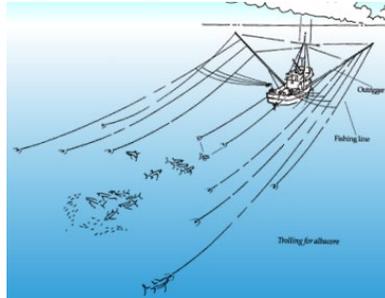
Shrimpers

In the D13 AOR, shrimpers operate during the pink shrimp trawl season from April through October. There are approximately 100 state licensed shrimp trawlers, which primarily harvest shrimp off the Columbia River and Central Oregon regions.

Trollers

Fishing Technique

Trollers tow multiple lines with baited hooks behind the vessel usually suspended from long outriggers.



Vessel Description

A *troller* has a house forward, at midships are a hinged outrigger that are lowered when fishing. Trailing behind the outriggers are the baited hooks. Normally while transiting and at the docks, the outriggers are raised.



Target Species

Salmon

In the D13 AOR, trollers can be found targeting salmon off the entire Washington and Oregon coasts, primarily within 20 nm from shore. Depending on the time of year and the areas open to fishing, anywhere from 200 to 650 commercial salmon trollers may be active. State and tribally licensed salmon trollers are also found targeting salmon in Washington internal waters.

Tuna

Trollers also target albacore tuna off Washington and Oregon. In addition to U.S. vessels, Canadian tuna trollers are also allowed to fish for albacore tuna in the West Coast U.S. EEZ pursuant to the U.S./Canada Albacore Tuna Treaty. Approximately 450 tuna trollers (including up to 110 authorized Canadian vessels) fish off the Washington and Oregon coasts, primarily in water temperatures greater than 60 degrees F.
