Gill nets are used on the Columbia River for salmon, sturgeon, shad, and smelt. The net meshes hang in the water in a diamondlike pattern, and fish swim into and get entangled in the net, quite often by the gills. The nets have a floating cork line and a sinking lead line. Nets that have more lead line weight than floatation are called **diver nets** and fish from the river bottom upward. Gill nets cannot be used in the ocean off the Oregon coast.

**Salmon Gill-Net Fishery**

Salmon are the primary target of gill-net fishing. Fishing is permitted only for short seasons in the spring and fall and in select fish areas in the spring and fall. Select fish areas are areas off the main flow of the Columbia, where fish have been raised and released for the express purpose of having commercial fishermen harvest them. Wild fish tend not to enter these areas. (Several stocks of upper-river fish are protected because their numbers are low.)

The mesh size of the gill net is regulated to allow steelhead trout to escape. Fisher­men are experimenting with new tangle nets on the Columbia during the spring run of chinook. These nets are “hung in” so that they are slack. Tangle nets are gill nets with smaller mesh that catch salmon, usually by the teeth instead of the gills. This method results in higher survival for the fish that have to be released. Tangle nets allow fishermen to release wild fish alive but keep hatchery fish. A specialized live well box is used to revive wild fish caught in the net. Most hatchery fish have their adipose fin clipped so they can be separated from unmarked fish.

Onboard gear can be arranged in several ways. Some boats have a stern-mounted reel and roller for setting and hauling nets over the stern. Other boats have a bow roller for bringing the nets over the bow (bowpicker). Bow pickers might have a roller to store the net, or the net might
be folded on deck or in boxes. The vessels are usually between 20 and 40 feet long.

**The Gill Net**

The gill net is made up of lightweight netting and is played out by the reel or by hand and then allowed to drift with the tide. It can measure up to 1,500 feet. Fishermen adapt the length and gear to meet local conditions. They have informal agreements with other fishermen over drift rights for different sections of the river. Groups of fishermen called *snag unions* clear the drifts of debris. A group of fishermen within the same drift area will draw numbers to determine who drifts first over a particular section of the river. The fishermen pick the fish out of the net as they pull the net back on board. The fish are delivered to buyers in the round (whole).

**Sturgeon Gill-Net Fishery**

A sturgeon gill-net fishery occurs in the Columbia River. The season varies and occurs in the winter. Catch rates and quota limits determine the length of the season. Harvest of white sturgeon by commercial fishermen in the lower Columbia has averaged about 10,000 fish annually in recent years.