

PURSE SEINERS

THE NETS

Purse seines, or movable nets, are used to encircle fish. The top of the net is a float line with corks, or buoys. The net is held in a vertical position by a weighted lead line. The net also has a wire cable, run through rings on the bottom, which is used to draw the net together. Purse seine fishers often use spotter planes and sonar to locate the fish. Once the school is located, a small skiff takes one end of the net and then circles the fish with the net. The wire cable is winched in to close off the bottom of the seine. Then the other lines are pulled in as well to bring the captured school of fish closer to the mother ship, where the fish are pumped out of the net and put into fish holds filled with refrigerated sea water.

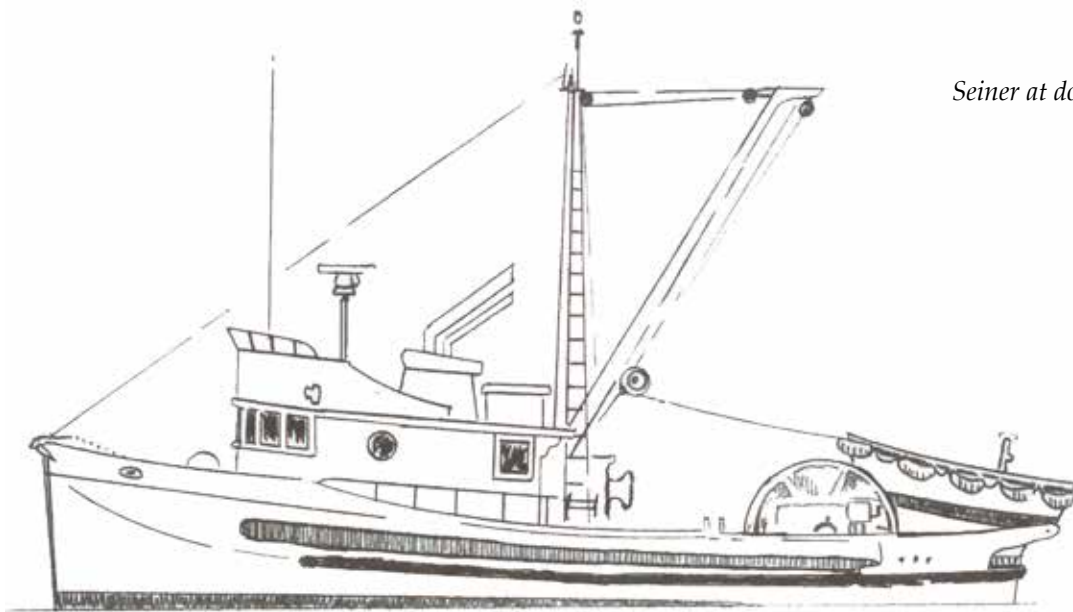
THE VESSELS

Purse seine vessels are in the 60- to 85-foot range. A typical catch is 35 or 40 tons, and vessels are able to fill their hold with one or two sets. Seine boats are recog-

nized at the dock by having on their stern a smaller skiff that is used to pull the net around the schools of fish. The skiff usually has a prop guard to keep the net from getting tangled in the propeller.

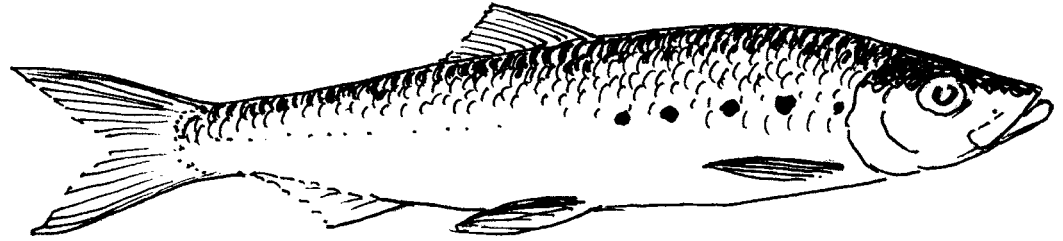
THE PACIFIC SARDINE FISHERY

Purse seines are used to catch schooling species such as mackerels, sardines, and anchovies. A purse seine fishery for Pacific sardines resumed on the Oregon coast in 1999. In 2001, just over 28 million pounds were landed. Most of the sardines landed in Oregon are exported. Much of the harvest ends up in Japan as bait for the longline fishery or for human consumption. Only the highest-quality fish are used as bait. There is potential to further develop the sashimi market in Japan (sashimi is a dish consisting of raw fish cut in thin slices and served with sauce). In 2001, 20 percent of the catch was shipped to Australia as feed for tuna farms. Only a small amount of the catch is sold in Oregon, usually to high-end restaurants in Portland.



Seiner at dock

Sardine



ORESU-G-03-011

© 2003 by Oregon State University

This publication was funded by the National Sea Grant College Program of the U.S. Department of Commerce's National Oceanic and Atmospheric Administration, under NOAA grant number NA16RG1039 (project number A/ESG-5), and by appropriations made by the Oregon State legislature. The views expressed herein do not necessarily reflect the views of any of those organizations.

*Writers: Ginny Goblirsch
and Steve Theberge*

Artist: Herb Goblirsch

Editor: Sandy Ridlington

Design: Rick Cooper

Layout: Sandy Ridlington

*Consultant: Scott
McMullen*



**OREGON STATE
UNIVERSITY**

MANAGEMENT OF SARDINES

Sardines are managed through the coastal pelagic species fisheries management plan. Pelagic species live in the water column rather than near the seafloor. The biomass of sardines is estimated each year, and the total allowable harvest is divided into two regions: southern California and the rest of the Pacific coast (northern California, Oregon, and Washington). The sardine fishery collapsed in the 1950s and only recently has recovered. It was originally thought to have collapsed because of overfishing, but now most fishery biologists believe sardine

populations are cyclic and their disappearance was mostly due to changes in ocean conditions. Core samples pulled from the Santa Barbara basin and examined for sardine scales show that a systematic rise and fall in the number of sardine scales occurs about every 60 years. A drop in ocean temperatures seems to bring about the decline. In cooler ocean conditions, sardine numbers decline and anchovy numbers increase. Over the past 1,850 years, there have been 12 major periods of abundance.