

FISH COMMISSION OF OREGON  
TRAWL INVESTIGATION

Cruise Report 66-7, Dover Sole Cruise

- Vessel:** MV Sunrise, chartered trawl vessel
- Date:** July 16 - August 1, 1966
- Objectives:**
1. To collect data on sex and size composition of Dover sole.
  2. To preserve juvenile Dover, English, and petrale sole for aging studies.
  3. To determine distribution of juvenile Dover sole between Willapa Bay and Cape Lookout.
  4. To identify, count, and weigh incidentally caught fish.
  5. To collect incidentally caught fish and invertebrates as requested.

**Methods:** Forty-three tows were made with a 41-foot headrope Gulf semi-balloon trawl. The body and intermediate of the trawl was made of 1-1/8 inch stretch mesh netting while the codend was 1-1/2 inch mesh. The anterior one-third of the codend had a 1-1/8 inch innerliner, while the posterior two-thirds of the codend contained a 1/2-inch knotless innerliner. Plastic rollers and a 1/4-inch galvanized chain; hung loop style, were attached to the 52-foot footrope. A 49-foot, 5/16-inch steel tickler chain was attached to the footrope. The 35-fathom bridle (dandy lines) which connected the wings to the otter boards was reduced to 30 feet after tow 19.

The catch from each tow was sorted and fish were counted and weighed as time permitted. Numerous Dover sole were preserved.

**Results:** Table 1 shows each tow by depth, length of time trawled, position, and catch in pounds. Weights are listed for petrale, English, and Dover sole, and Pacific ocean perch. The other species caught were grouped into rockfish, flatfish, round fish, and miscellaneous fish. Table 2 lists the common and scientific names of the fish in each group used in Table 1. Station location is given in Figure 1.

The area surveyed was from Willapa Bay, Washington, to Cape Lookout, Oregon. Tows ranged in depth from 6 to 85 fathoms. Most Dover sole were caught between 30 and 40 fathoms, but occurred between 15 and 85 fathoms. A total of 4,483 Dover sole were caught.



Other commonly caught species were hake, English sole, rex sole, sand dabb, arrowtooth flounder, and Pacific ocean perch. Rex sole was abundant between 20 and 50 fathoms and ranged out to 85 fathoms. English sole were common between 10 and 30 fathoms. Sand dabs and hake were caught at depths between 20 and 50 fathoms. Arrowtooth flounder occurred between 50 and 85 fathoms, and Pacific ocean perch were caught between 70 and 85 fathoms.

Vessel:

Dates:

Personnel:

Objectives:

July 15 - August 1, 1967  
Robert Demory - Party Chief  
Rudy Lovvold - Vessel Captain (also composition of Dover sole,  
Halbert Bailey - Aquatic Biologist  
Mike Tagliavento - Student Trainee (fish, and petrale sole for  
Dennis Lund - Observer, Oregon State University  
Tom Lovvold - Crewman  
3. To determine distribution of juvenile Dover sole between  
Willapa Bay and Cape Lockout.

- 4. To identify, count, and weigh Terry Link  
Oregon Fish Commission  
February 7, 1967  
5. To collect incidentally caught fish, as requested.

Methods:

Forty-three tows were made with a 43-foot hoodropes Gulf semi-buoyed trawl. The body and intermediate of the trawl was made of 1-1/8 inch stretch mesh netting while the codend was 1-1/2 inch mesh. The anterior one-third of the codend had a 1-1/8 inch innerliner, while the posterior two-thirds of the codend contained a 1/2-inch meshless innerliner. Plastic rollers and a 1/4-inch galvanized chain, hung loop style, were attached to the 35-foot footrope. A 41-foot, 5/16-inch steel trawler chain was attached to the footrope. The 30-fathom bridle (dandy lines) which connected the wings to the other boards was reduced to 24 feet after tow 17.

The catch from each tow was sorted and fish were counted and weighed at that permitted. Numerous Dover sole were preserved.

Results:

Table 1 shows catch by depth, length of time trawled, position, and catch in pounds. Weights are listed for petrale, English, and Dover sole, and Pacific ocean perch. The other species caught were grouped into rockfish, flatfish, round fish, and miscellaneous fish. Table 2 lists the common and scientific names of the fish in each group used in Table 1. Station location is given in Figure 1.

The area surveyed was from Willapa Bay, Washington, to Cape Lockout, Oregon. Tows ranged in depth from 6 to 85 fathoms. Most Dover sole were caught between 15 and 40 fathoms, but occurred between 15 and 85 fathoms. A total of 4,452 Dover sole were caught.



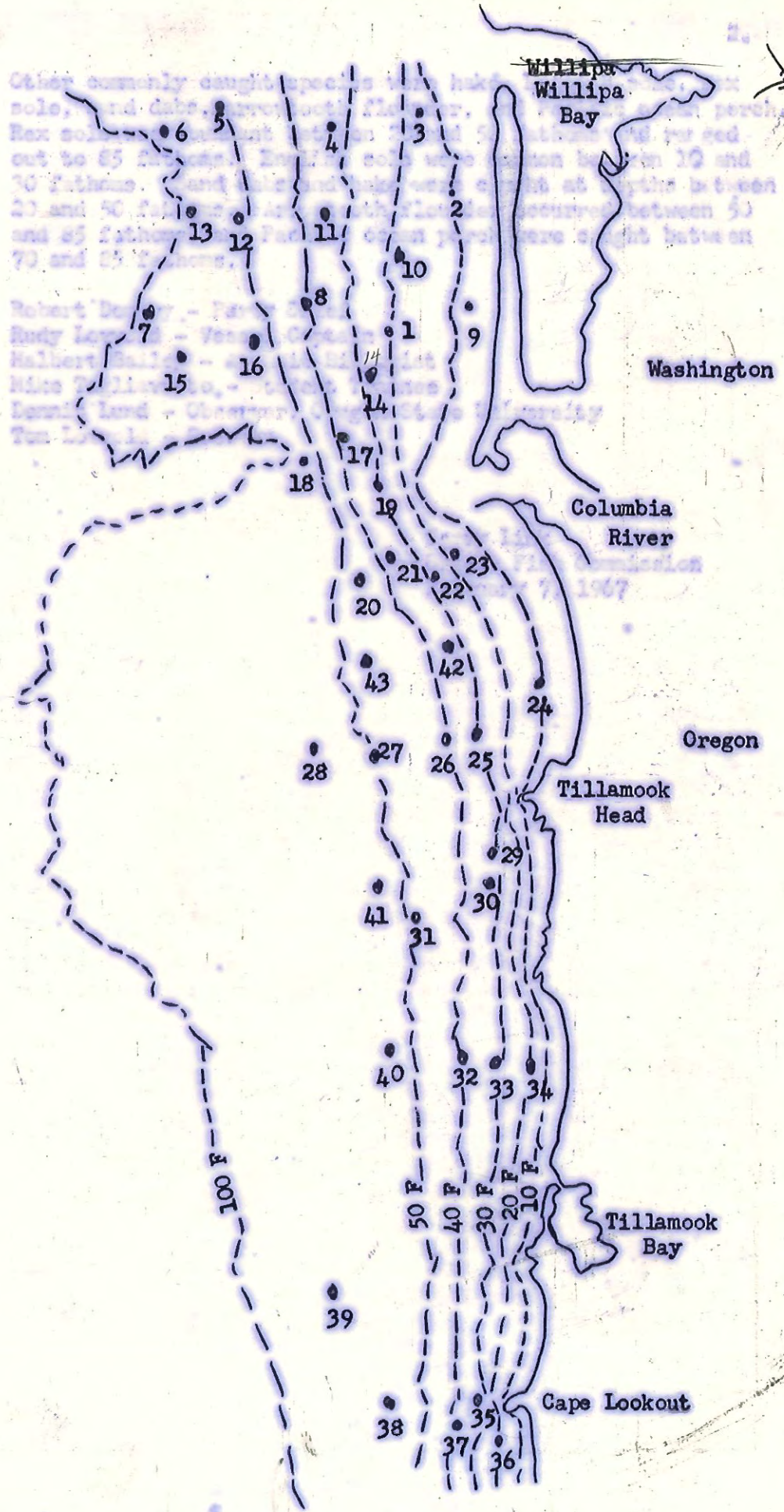


Figure 1. Tow number and relative location of tows, Dover sole cruise, July 1966. Tows 1-19, northern area; tows 20-43, southern area.