

THE OREGON GROUND FISH FISHERY AND ITS INVESTIGATION IN 1973

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TO: Participants, 15th Annual Meeting of the Technical Sub-Committee
of the International Groundfish Committee

FROM: J.M. Meehan *JMM*

Gentlemen:

Enclosed is the Oregon status report for use at the Sub-Committee
meeting in San Francisco.

Distribution: T. Dark
B. Demory
G. DiDonato
C. Forrester
S. Hoag
D. Gunderson
J. Harville
T. Jow
J. Lechner
R. McIndoe
J. Robinson

AGENDA ITEM IV - State of Stocks

1. Dover sole

The 1973 catch of 4.4 million pounds was a considerable reduction (-25.7%) from the 1972 level of 5.9 million pounds. This total was also 8.9% below the 10-year mean (Table 1). The reduction was due to a combination of factors including passage of a strong year class out of the fishery, depletion of old stocks from a virgin fishery off Coos Bay, and possible effects of foreign trawl fleets. CPUE for Areas 2B-3A decreased to 391 pounds/hour in 1973 from 451 pounds/hour in 1972.

2. English sole

English sole landings in 1973 were 2.4 million pounds, up 8.0% from the 1972 total and 13.0% above the 10-year mean. CPUE for Areas 2B-3A of 240 pounds/hour in 1973 was 15.2% below the 1972 figure of 283 pounds/hour.

3. Petrale sole

The 1973 catch of 2.2 million pounds was the same as the 1972 landings and 8.5% above the 10-year mean. CPUE for Areas 2B-3A was 344 pounds/hour or 29.3% above the 1972 level of 266 pounds/hour.

4. Pacific cod

Pacific cod landings decreased to 453,000 pounds from 1.1 million pounds in 1972 (-57.6%). Oregon is a fringe area for cod distribution and the rapid changes in landings reflect the vagaries of water temperature and year class levels.

5. Lingcod

The catch of lingcod in Oregon was 2.0 million pounds, the largest landing on record. This was 48.2% above the 1972 landing and 93.5% above the 10-year mean.

6. Sablefish

Sablefish landings were 838,000 pounds in 1973, a 107.9% increase from 1972 and 430.4% above the 10-year mean.

7. Pacific ocean perch

Landings of Pacific ocean perch totaled 540,000 pounds in 1972, the lowest landing recorded since 1948. The drop was 10.3% below the 1972 level and 97.7% below the 10-year mean. CPUE for Areas 2B-3A was 359 pounds/hour compared to 290 pounds/hour in 1972.

8. Other rockfish

Landings of other rockfish totaled 3.6 million pounds, down 12.3% from the 4.1 million pounds landed in 1972 and 16.1% below the 10-year mean. The 1973 CPUE of 417 pounds/hour was similar to the 1972 estimate of 419 pounds/hour.

AGENDA ITEM V - REVIEW OF THE OREGON FISHERY

In 1973 Oregon groundfish landings totaled 21.7 million pounds. Trawlers landed 88.9% or 19.3 million pounds of the total catch (Table 2). This was a decrease of 7.8% from the total trawl catch in 1972 and 21.1% below the mean for the 1963-72 period (Table 1).

Foodfish landings accounted for 18.7 million pounds or 96.9% of the 1973 Oregon trawl catch. Flatfish were the most important food fish species group, contributing 11.2 million pounds. Dover sole was the most important species comprising 39.3% (4.4 million pounds) of the total flatfish catch. Other major species were English sole, petrale sole, and lingcod. Pacific ocean perch contributed 13.2% (540,000 pounds) to the total rockfish catch of 3.6 million pounds.

An estimated 28.2 thousand hours of fishing effort were expended by the Oregon trawl fleet in 1973. This effort level was below the 29.2 thousand hours in 1972 and was 3.7% above the 10-year mean.

Landings of groundfish taken incidentally in shrimp trawls increased to 1.4 million pounds in 1973 compared to 1.1 million pounds in 1972. Rockfish continued to dominate the incidental landing, totaling 874,000 pounds (62.9%) of the catch.

Troll landings totaled 604,000 pounds in 1973, up 4.1% from 1972. Major species were rockfish (440,000 pounds) and lingcod (148,000 pounds).

Landings of groundfish caught in pots totaled 479,000 pounds in 1973. Sablefish made up 92.3% of this total.

Landings with jig gear were 9,000 pounds, primarily lingcod.

Gill net and longline landings totaled 1,000 pounds each.

TABLE 2. OTTER TRAWL LANDINGS BY Inter. Stat. AREA IN 1973(Landings in 1,000 pounds)

SPECIES	1C	2A	2B	2C	3A	3B	3C		Total
ENGLISH SOLE.....	119	224	708	558	670	92	0		2,371
ROCK SOLE.....	0	0	T	T					T
PETRALE SOLE.....	30	85	485	501	912	174	4		2,191
DOVER SOLE.....	202	411	2,645	69	1,045	44	0		4,416
REX SOLE.....	37	54	168	9	958	30	0		1,256
STARRY FLOUNDER.	7	11	24	63	228	6	0		339
OTHER FLATFISH..	7	35	164	63	384	4	0		657
PAC. TRUE COD...	0	0	0	9	239	160	45		453
LINGCOD.....	74	96	214	426	1,105	83	1		1,999
SABLEFISH.....	22	51	735	20	10	T	0		838
PAC. OCEAN PERCH	2	5	224	130	178	0	1		540
OTHER ROCKFISH..	83	143	806	532	1,901	64	29		3,558
MISC. SPECIES...	2	16	36	1	8	0	0		63
DOGFISH.....	0	0	T	T	0	0	0		T
ANIMAL FOOD.....	T	1	21	212	362	7	0		603
REDUCTION USE...									
TOTAL LANDINGS..	585	1,132	6,230	2,593	8,000	664	80		19,284
TOTAL HOURS.....	1,620	3,112	9,064	4,044	9,636	727	40		28,243

T = To nearest 500 lbs.

AGENCY ITEM VII - REVIEW OF AGENCY PROGRESS

1. Current and Proposed Research

- a. Tagging. Two tagging trips were complete between May 1973 and April 1974. A total of 975 sablefish were tagged between September 5 and October 5, 1974. Tagging occurred in Areas 3A and 2C during the resource assessment cruise of the chartered trawler R/V Commando. On March 8-9, 1974 a total of 164 Dover sole were tagged off Port Orford in 400-450 fathoms of water. The tagging was conducted during a regular fishing trip of the commercial trawler M/V Harmony.
- b. Biological studies. The resource surveys conducted from 1971 to 1973 will be continued. The September 1974 cruise will be a replicate of the 1972 cruise and will cover the area between Yaquina Head and Cape Blanco in depths from 10 to 250 fathoms.
- c. Sampling program. Landings of Dover sole, English sole, petrale sole, rockfish, and animal food were sampled at Brookings, Charleston, Winchester Bay, Newport, and Astoria. A summary of 1973 market samples is given in Table 3.

2. Reports Completed or in Progress

- a. Published during the period May 1, 1973 and April 30, 1974.

Barss, William H. 1973. Report of cruise 73-8, shrimp. Fish Commission of Oregon (processed).

_____. 1974. Report of cruise 74-1, Dover sole. Fish Commission of Oregon (processed).

_____. 1974. Report of cruise 74-2, shrimp. Fish Commission of Oregon (processed).

Demory, Robert L. 1973. Report of cruise 73-4, special Fish Commission of Oregon (processed).

_____. 1974. Report of cruise 73-5, resource survey. Fish Commission of Oregon (processed).

_____, and Louis B. Fredd. 1973. Investigation of the abundance and recruitment of bottomfish off Oregon: Estimated yields of Dover sole (*Microstomus pacificus*) in waters off northern Oregon-southern Washington. Completion Report July 1, 1970 to June 30, 1971. Fish Commission of Oregon (processed).

_____ and Jack G. Robinson. 1973. Resource surveys on the continental shelf off Oregon. Annual Report July 1, 1972 to June 30, 1973.

Table 3. Number of Market Samples Taken in 1973 Oregon Landings, by Area of Catch and Species.

Species	PMFC Area					Total
	1-C	2-A	2-B	2-C	3-A	
Dover sole	1	5	21	0	9	35
Petrале sole	0	0	5	0	9	14
English sole	0	0	5	0	8	13
Pacific ocean perch	0	0	1	0	4	5
Yellowtail rockfish	0	0	4	0	0	4
Canary rockfish	0	0	1	0	0	1
Rockfish species Composition	1	1	29	3	17	51
Mink food species Composition	0	0	1	3	6	10
Total	1	6	67	6	53	133

Lukas, Gerald. 1973. An evaluation of methods for determining movement of shrimp, Phase II: shrimp holding studies. Final Report July 1, 1970 to June 30, 1971. Fish Commission of Oregon (processed).

_____ and Michael Hosie. 1973. Investigation of the abundance and benthic distribution of pink shrimp, *Pandalus jordani*, off the northern Oregon coast. Final Report July 1, 1969 to June 30, 1970. Fish Commission of Oregon (processed).

Niska, Edwin L. 1973. Report of cruise 73-7, shrimp. Fish Commission of Oregon (processed).

Robinson, Jack G. 1973. Report of cruise 73-2, shrimp. Fish Commission of Oregon (processed).

_____. 1973. Report of cruise 73-6, shrimp. Fish Commission of Oregon (processed).

_____, Connie Bruneau, and James M. Meehan. 1974. Groundfish and shrimp investigations. Annual Report January 1, 1971-December 31, 1972. Fish Commission of Oregon (processed).

6. Manuscripts in Progress.

Demory, Robert L. Feasibility of an anchor tag for tagging juvenile English sole.

_____. Growth of scales of Dover sole, *Microstomus pacificus*, from an aquarium experiment.

Forsberg, Brent O. and Terry L. Link. Movements of tagged English sole off Oregon and Washington coasts.

Hosie, Michael J. Culture methods for pink shrimp (*pandalus jordani*) larvae.

_____. Bopyrid parasitism of pink shrimp (*Pandalus jordani*).

Robinson, Jack G. The vertical distribution and diel migration of pink shrimp (*Pandalus jordani*) off Oregon.