

THE OREGON GROUND FISH FISHERY AND ITS INVESTIGATION IN 1975

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AGENDA ITEM V - REVIEW OF AGENCY GROUND FISH PROGRAMS

Oregon

The State Legislature merged the former Oregon Wildlife Commission and the Fish Commission of Oregon into one agency, effective July 1, 1975. The Oregon Department of Fish and Wildlife has a 7-Member Commission which sets policy and fishery-wildlife management regulations; it is appointed by the Governor. John McKean and Robert Mace are Director and Deputy Director, respectively. Dr. T.E. Kruse resigned as Deputy Director in March 1976, to take a position with the N.M.F.S. in Seattle. Mr. McKean will retire at the end of June, 1976; his successor has been selected - Dr. John Donaldson, formerly of O.S.U. and Oregon Aqua-Foods Inc., will come aboard August 1. The merger has had little effect on the groundfish organization. A Marine Region was formed (Bob Loeffel as Supervisor) out of the former F.C.O. Marine Fish and Shellfish section; it has responsibility for all fishery management-assessment activities in marine and estuarine waters except for salmonids. C. Dale Snow, former Shellfish Investigations Program Leader, is now Assistant Regional Supervisor, responsible for Operations, including marine mammals; Jack Robinson is Assistant Regional Supervisor for Programs, including most former management-research activities of the albacore, shellfish, and groundfish-shrimp programs. A list of Marine Region staff involved with groundfish is given in Appendix I.

- (a) Stock Assessment project (3 biologists, 1 technician [1/2 time]). Major objective of this project is to obtain estimates of management-base data, including population estimates, utilization rates, distribution of populations, and life history statistics. It also develops methodology to achieve the above objective. Work has been mostly on pleuronectids to date; off Oregon in 1971-74; off Washington in 1975 and 1976. Two major groups will be studied in future: rockfish and lingcod. A manuscript reporting on the 1971-74 Oregon resource survey was recently completed and hopefully will be typed in time for distribution at the seventeenth annual meeting. A report on 1975 work off Washington is near completion.
- (b) Groundfish-Shrimp Management project (3 biologists, 1 technician [1/2 time]). The work on this project, in many respects, supplements and complements that of the stock assessment project. Fishery statistics of catch, effort, and area of catch are obtained, collated, and analyzed. Logbook data are the main source of these data. Systematic sampling (Table 1) of the landings of major flatfish yield data on age-size composition of the catch. Sampling of rockfish landings gives us species composition statistics. Monitoring of the fishery also allows collection of recovery data from tagging studies.
- (c) Tuna-Marine Recreational Fish-Baitfish project (2 biologists). This project is a small one now, but will probably increase in size and scope. Some rockfish species and lingcod are subject to expanding recreational fisheries in Oregon, about which little is known. Main objective is to obtain the same types of biological data as collected for traditional groundfish fisheries as well as to obtain better and more information on the fisheries.

Table 1. Number of Market Samples Taken in 1975 Oregon Landings,
by Area of Catch and Species

Species	PMFC Area					Total
	1-C	2-A	2-B	2-C	3-A	
Dover sole	2	3	5	0	7	17
Petrale sole			5	0	6	11
English sole			5	0	8	13
Pacific ocean perch		1	0	0	8	9
Yellowtail rockfish			1	0	1	2
Canary rockfish			3	0	2	5
Rockfish species Composition			62	20	44	126
Mink food species Composition			0	0	15	15
Total	2	4	81	20	91	198

- (d) Other projects. Participation is planned in the proposed N.E. Pacific synoptic rockfish survey coordinated by N.M.F.S. in FY 1977.

Data processing. Inhouse automatic data processing of groundfish and shrimp landing statistics will be in operation in 1976. Catch per unit effort compatibility with other Pacific coast agencies will be achieved thereby.

A. Reports Completed or in Progress

1. Published during the period May 1, 1975 and April 30, 1975.

Barss, William H. 1975. Report of cruise 75-2, shrimp. Fish Commission of Oregon (processed).

_____. 1976. The English sole. Informational Report 76-1. Oregon Department of Fish and Wildlife (processed).

_____. 1976. The Pacific sanddab. Informational Report 76-5. Oregon Department of Fish and Wildlife (processed).

Demory, Robert L. 1975. The Dover sole. Informational Report 75-4. Oregon Department of Fish and Wildlife (processed).

Demory, Robert L. and Michael J. Hosie. 1975. Resource surveys on the continental shelf of Oregon. Annual Report July 1, 1974 to June 30, 1975. Fish Commission of Oregon (processed).

Hosie, Michael J. and Robert L. Demory. 1975. Report of cruise 75-4, Marine resource survey off Washington. Oregon Department of Fish and Wildlife (processed).

Hosie, Michael J. 1975. Descriptions of the two megalopal stages of laboratory-reared pink shrimp, *Pandalus jordani*. Information Report. Fish Commission of Oregon (processed).

_____. 1975. Culture methods and response of laboratory-reared pink shrimp (*Pandalus jordani*) larvae to selected simulated environmental factors. Information Report. Fish Commission of Oregon (processed).

_____. 1975. Biology of the Rex sole, *Glyptocephalus zachirus* Lockington, in waters off Oregon. Masters Thesis. Oregon State University, Corvallis. 43p.

_____. 1975. The Rex sole. Informational Report 76-2. Oregon Department of Fish and Wildlife (processed).

_____. 1976. The Arrowtooth flounder. Informational Report 76-3. Oregon Department of Fish and Wildlife (processed).

_____. 1976. Report of cruise 76-2, shrimp. Oregon Department of Fish and Wildlife (processed).

Hettman, Gary, Gerald Lukas and Jack G. Robinson. 1975. Groundfish and shrimp investigations. Annual Report January 1, 1974-December 31, 1974. Fish Commission of Oregon (processed).

Hettman, Gary. 1975. Report on cruise 75-4, Polish stern trawler observation on M/T Lyra. Fish Commission of Oregon (processed).

_____. 1976. Report of cruise 76-1, shrimp. Oregon Department of Fish and Wildlife (processed).

Lukas, Gerald and William H. Barss. 1975. Comparison of catches of different mesh size shrimp trawls. Summary Report. Oregon Department of Fish and Wildlife (processed).

Niska, Edwin L. 1976. Species composition of rockfish in catches by Oregon trawlers 1963-71. Informational Report 76-7. Oregon Department of Fish and Wildlife (processed).

Robinson, Jack G. 1976. The Pink shrimp. Informational Report 76-4. Oregon Department of Fish and Wildlife (processed).

_____. 1976. Why logbooks? Informational Report 76-6. Oregon Department of Fish and Wildlife (processed).

TenEyck, Neil R. and Robert L. Demory. 1975. Utilization of flatfishes caught by Oregon trawlers in 1974. Fish Commission of Oregon (processed).

2. Manuscripts in Progress.

Barss, William H. Differentiating age among females of *Pandalus jordani* using the sternal spine characteristic.

_____. Resource survey of the continental shelf off Washington.

_____. Range extension of the decorated warbonnet, *Chiriliphis decoratus* (Jordan and Snyder 1903).

_____. An abnormally pigmented shortspined thorneyhead.

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.

Demory, Robert L., Michael J. Hosie, Neil R. TenEyck and Brent O. Forsberg. Marine resource surveys off the Oregon coast. Completion Report.

Hosie, Michael J. and Howard F. Horton. Biology of the rex sole, *Glyptocephalus zachirus* Lockington, in waters off Oregon.

Hosie, Michael J. Parasitism of the shrimp, *Pandalus jordani* by the isopod *Bopyroides hippolytes*.

_____. Abnormal otoliths of an arrowtooth flounder, *Atheresthes stomias*.

Hosie, Michael J. and William H. Barss. Age and length at maturity of arrowtooth flounder (*Atheresthes stomias*) in Oregon waters.

Hettman, Gary. The Petrale sole. Informational Report (processed).

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

Forsberg, Brent O. and Michael J. Hosie. Otolith aging techniques for eight species of flatfish found off Oregon.

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

TenEyck, Neil R. The Lingcod. Informational Report (processed).

AGENDA ITEM VI - REVIEW OF THE NORTHEASTERN PACIFIC GROUND FISH FISHERIES

A. 1975 North American Fisheries

1. Total Landings

In 1975, Oregon groundfish landings totaled 20.3 million pounds, down 1.4 million pounds (6%) from 1974. Trawl landings totaled 19.3 million pounds (95.2%) of the total catch, down 8.6% from the 1965-74 mean (Table 2).

Foodfish landings accounted for 18.8 million pounds (97.4%) of the 1975 Oregon trawl catch. Flatfish were the most important species group, contributing 12.5 million pounds. Dover sole was the principal species, comprising 38.4% (4.8 million pounds) of the total flatfish catch. Other major species or species groups were English sole, petrale sole, rex sole, lingcod and other rockfish. Pacific ocean perch landings contributed 27.8% (960,000 pounds) to the total rockfish catch of 3.5 million pounds.

An estimated 28.5 thousand hours of fishing effort were expended by Oregon trawlers in 1975. This was above the 27.3 thousand hours in 1974 and 8.7% above the 10-year mean.

CPUE for trawl-caught fish was 697 lbs/hr. This was below the 10-year mean of 841 lbs/hr and the lowest level in the last 10 years.

Animal food landings accounted for 0.6 million pounds (3.1%) of the 1975 Oregon trawl catch. Animal food landings continued to decline from previous years as most processors relied on filleted foodfish carcasses to supply their dwindling animal food markets.

Landings of groundfish taken incidentally in shrimp trawls decreased more than 50% to 0.56 million pounds in 1975 compared to 1.35 million pounds in 1974. Rockfish dominated the incidental landing, totaling 393,000 pounds (71%) of the catch.

Troll-caught groundfish landings decreased 50% to 345,000 pounds. Major species were rockfish (300,000 pounds) and lingcod (40,000 pounds).

Pot-caught landings were up 400% to 71,000 pounds. Sablefish made up 69% of the total while lingcod made up 23%. Astoria landings accounted for 68% of the pot catch while Newport landings accounted for most of the remainder.

Landings of jig-caught fish were down 50% to 1,000 pounds. Lingcod was the only reported jig-caught specie.

Longline landings doubled to 2,000 pounds even though most longliners have switched to pots. The longline catch was nearly all rockfish.

No gillnets were fished in Oregon marine waters in 1975.

2. Landings by Species.

a. Dover sole

The 1975 catch of 4.8 million pounds was well below (14% decrease)

Table 2. Statistics of the Oregon Trawl Fishery (Landings in thousands of pounds; effort in hours)

Species	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	Mean 1965-74	1975
English sole	1,678	3,537	2,304	2,360	1,716	1,884	1,799	2,196	2,371	1,747	2,159	2,166
Rock sole	4	18	8	51	25	5	122	2	tr.	4	24	29
Petrale sole	1,838	1,838	1,771	1,653	1,835	2,141	2,284	2,185	2,191	2,692	2,043	2,649
Dover sole	3,631	3,492	3,565	4,325	5,553	5,538	5,538	5,942	4,416	5,604	4,760	4,780
Rex sole	985	1,498	1,219	1,075	1,215	1,074	839	1,314	1,256	1,300	1,178	1,024
Starry flounder	410	477	277	454	251	426	485	439	339	408	397	817
Other flatfish	62	205	245	215	506	646	521	600	657	581	424	1,013
Pacific cod	194	628	430	385	47	78	483	1,069	453	685	445	585
Lingcod	852	993	1,067	1,526	1,084	945	1,281	1,349	1,999	1,937	1,303	1,529
Sablefish	130	68	67	56	135	111	240	403	838	547	260	672
Pacific ocean perch	13,647	4,518	1,706	1,649	940	1,595	1,649	602	540	831	2,768	960
Other rockfish	4,121	5,069	4,061	4,253	5,101	3,515	3,404	4,057	3,558	2,545	3,968	2,469
Misc. species	23	12	8	31	4	17	28	36	63	59	28	32
Dogfish	1	0	0	2	tr.	17	4	tr.	tr.	12	4	4
Animal food	4,152	3,357	3,999	2,815	2,599	2,052	1,786	730	603	708	2,280	581
Reduction use	1,498	79	18	49	45	0	0	0	0	0	169	0
Total	33,226	25,789	20,745	20,899	21,057	20,044	20,463	20,924	19,284	19,660	22,209	19,337
Total hours	29,254	23,676	20,183	24,456	25,692	27,587	28,644	29,206	28,243	27,258	26,420	28,468
Pounds/hour	1,136	1,089	1,028	855	818	727	714	716	683	721	841	679

the 1974 landings of 5.6 million pounds. This was equal to the 10-year mean (Table 1). The decrease was primarily due to market limits and a labor-management dispute in area 2B which resulted in a 19% or 0.6 million pound drop in landings. CPUE was down in all areas with a mean of 336 lbs/hr, down from 511 lbs/hr in 1974.

b. English sole

English sole landings in 1975 were 2.2 million pounds, up 23% from the 1974 total of 1.7 million pounds and equal to the 10-year mean. CPUE was 196 lbs/hr which was down from the 1974 mean of 225 lbs/hr. The decrease in CPUE was due primarily to decreases in Areas 2B and 3A, where CPUE dropped from 325 lbs/hr to 238 lbs/hr, and 318 lbs/hr to 242 lbs/hr respectively.

c. Petrale sole

The 1975 catch of 2.6 million pounds was nearly equal to the 1974 catch and 30% above the 10-year mean. CPUE was down to 202 lbs/hr from a mean of 384 lbs/hr in 1974. A large increase in CPUE occurred in Area 2A and 3A from 1974 to 1975 at 49 lbs/hr to 330 lbs/hr and 377 lbs/hr to 558 lbs/hr respectively. CPUE was down in areas 2B and 2C.

d. Pacific cod

Pacific cod landings decreased to 585,000 pounds from 685,000 pounds in 1974 (11.1%). This is 31% above the 10-year mean. Oregon is a fringe area for Pacific cod distribution.

e. Lingcod

Lingcod landings totaled 1.5 million pounds, a 21% decrease from 1974 but 15% above the 10-year mean.

f. Sablefish

Landings of sablefish totaled 672,000 pounds in 1975, a 23% increase from 1974 and 158% above the 10-year mean.

g. Pacific ocean perch

Landings of Pacific ocean perch increased for the second consecutive year, to 960,000 pounds in 1975, up 16%. Area 2C was primarily responsible for the increase landings, having improved by 605%. Landings were still 65% below the 10-year mean. CPUE was 455 lbs/hr compared to 604 lbs/hr in 1974.

h. Other rockfish

Landings of other rockfish totaled 2.5 million pounds, equal to that of 1974 but 40% below the 10-year mean. The 1975 CPUE of 343 lbs/hr was 3% below the 1974 mean of 353 lbs/hr.

i. Rock sole

Landings of rock sole totaled only 29,000 pounds, but well over the 1974 landing. This species is not important in Oregon trawl fisheries, and market demand accounts for most variation in annual landings.

D. North American Groundfish Regulations

1. Changes implemented since 1975 TSC Meeting.

No changes were made in groundfish regulations on commercial fisheries in 1975. A bag limit was imposed on ocean foodfish angling (the recreational fishery), for the first time, in late 1975 - 25 fish per day, not to exceed 5 lingcod (includes rockfish, flounder, lingcod and halibut, among others) or 2 halibut; 50, 10, and 4 respectively in 7 consecutive days or in possession.

2. Regulation changes under current consideration.

No changes in groundfish regulations are now under consideration, except that requirement of an ocean foodfish angling license, with or without fee, is under consideration for possible legislative action.