

OREGON'S GROUND FISH FISHERIES AND ASSOCIATED INVESTIGATIONS IN 2003

Prepared For the May 4 -5, 2004 Meeting Of The Technical Sub-Committee Of The
Canada-United States Groundfish Committee

OREGON DEPARTMENT OF FISH AND WILDLIFE

2003 AGENCY REPORT

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OREGON DEPARTMENT OF FISH AND WILDLIFE

AGENCY REPORT FOR TSC, 2003

2. OREGON

A. AGENCY OVERVIEW - MARINE RESOURCES PROGRAM

Major sections, and the section heads are:

MRP Program Manager

Resource Assessment and Analysis

Management and Monitoring

Dr. Patricia M. Burke

Dave Fox

Rod Kaiser

The Program Manager and two assistant program managers supervise several Supervising Fish and Wildlife Biologists and Natural Resource Specialist-3 project leaders with specific, supervisory, management and/or research and assessment responsibilities. MRP has about 45 full-time permanent staff and 60-70 seasonal employees. The program's headquarters is located at Newport. Additional field staff are located at offices in Astoria, Tillamook, Corvallis, Newport, Charleston, Gold Beach and Brookings.

The MRP is responsible for assessing and managing Oregon's marine stocks of fish, shellfish, marine mammals and their habitats, report on species status and make policy recommendations as appropriate through both state and federal management structures.

B. MULTISPECIES STUDIES

1. Recreational Fisheries Project:

Sampling of the ocean boat recreational fishery by MRP's Ocean Recreational Boat Survey (ORBS) continued in 2003. Based on the results of year round sampling in 1999-2000, less than 5 percent of the annual fishing effort and catch occurred during the winter period (Nov - Feb). Oregon plans to continue sampling the March through October period during 2004.

Black rockfish remains the dominant species caught in the ocean boat fishery. Lingcod, several other rockfish species (blue rockfish, China rockfish and other nearshore species), cabezon and greenling are also commonly landed. Oregon's fishery for Pacific halibut continues to be very popular, high profile fishery requiring International Pacific Halibut Commission (IPHC), federal, and state technical and management consideration and management.

The ORBS continued its species composition and biological sampling of groundfish species at Oregon coastal ports during 2003. Black rockfish and blue rockfish otoliths were gathered, in addition to lingcod fin rays, for ageing studies. ORBS continued collecting of length and weight data from groundfish species.

During May through September, a portion of recreational charter vessels were sampled at sea for species composition, discard rates and sizes, location, depth and catch per angler (CPUE) using ride-along samplers.

Other ODFW management activities included participation in the U.S. West Coast Recreational Fish International Network (RecFIN) process, data analysis and sponsoring public hearings to discuss changes to the management of Pacific halibut, lingcod and rockfish fisheries. See the specific section for more details.

Contact: Don Bodenmiller (541) 867-0300, ext 223
don.bodenmiller@oregonstate.edu

2. Marine Recreational Fisheries Statistics Survey/Shore and Estuary Boat Sampling (SEB):

Through June 2003, port samplers continued conducting the federal Marine Recreational Fisheries Statistical Survey (MRFSS) by collecting demographic and creel data from boat and shore anglers in the ocean and estuaries. Species composition, length and weight data were collected.

Starting in July 2003, the program was changed to Shore and Estuary Boat (SEB) sampling program with much of the same duties as under the former MRFSS program. The main difference was that coastal estuary sampling was focused on non-salmonid and non-sturgeon fisheries away from the ocean boat fishery sampled by ORBS. Sampling in lower river tidal waters was mostly discontinued.

Black rockfish continued to dominate estuary boat groundfish landings and surfperch made up the majority of shore-based catch by weight. Salmon dominated estuary boat landings by weight. Pacific herring made up the majority of both shore-based and estuary boat landings by number of fish.

ODFW is funding a pilot project to determine if phone angler surveys for effort and trip type from shore and estuaries can be estimated based on an angler license frame..

Contact: Don Bodenmiller (541) 867-0300 ext. 223,
don.bodenmiller@oregonstate.edu

3. Species Composition Sampling:

Species composition sampling from rockfish, thornyheads and other groundfish continues on commercial trawl landings, commercial fixed-gear landings and recreational landings.

Contact Mark Saelens (commercial) or Don Bodenmiller (recreational) for more information (541) 867-0300 ext. 251 & 223 mark.saelens@oregonstate.edu,
don.bodenmiller@oregonstate.edu

4. Groundfish Maturity Study:

In 2003, we continued to collect maturity data on a number of nearshore and offshore rockfish, including yelloweye, vermillion, copper, tiger, quillback, China, aurora and yellowmouth rockfish.

Contact: Bob Hannah at (541) 867-0300 ext. 231, bob.hannah@oregonstate.edu

5. Whiting Bycatch Sampling:

ODFW continued to coordinate a cooperative observation program to monitor bycatch and collect biological samples of unsorted Pacific whiting landings made at shoreside processors. Cooperators included:

Washington, Oregon and California fishing industry,
California Department of Fish and Game
Washington Department of Fish and Wildlife
National Marine Fisheries Service
Pacific Fishery Management Council
Pacific States Marine Fishery Commission

Observers and staff obtained age samples from 720 yellowtail rockfish, 16 widow rockfish, 330 sablefish, 450 jack mackerel, and 1,580 Pacific whiting. Additional length frequency samples were taken on 2,608 Pacific whiting.

Contact Steve Parker or Brett Wiedoff (541) 867-0300 ext. 256 or 258,
steve.parker@oregonstate.edu or Brett.L.Wiedoff@state.or.us

6. Cooperative Nearshore Project.

During 2003, Carla Sowell at Brookings worked on developing a cooperative research project with the Oregon South Cost, Port Orford Ocean Resource Team (POORT). The extended sampling project is scheduled to start in early 2004 and continue through December of 2004, and extend through 2005 if POORT funds are available. The project involves POORT contracting a commercial fishing vessel to catch three nearshore species of fish, china rockfish, kelp greenling, and cabezon. POORT will also hire a sampling crew to record the species, length, and weight of the fish. The crew will collect biological samples, otoliths for aging, gonad samples for histology, and fin-clips for genetic sampling. The ODFW will supply most of the sampling equipment, train the sampling crew and monitor the project. Biological samples will be stock piled until funding is available to analyze the data collected.

For information contact Carla Sowell at (541) 412-7395 odfwbrookings@wave.net.

7. Development and Testing of a Selective Flatfish Trawl

The ODFW selective flatfish trawl project was developed with two major objectives during 2003. We tested trawl efficiency at bycatch reduction in the DTS fishery and conducted a fishery-scale test of the trawl in the shelf flatfish fishery using a special authorization via an Exempted Fishing Permit (EFP). We tested the potential of a selective flatfish trawl to reduce rockfish bycatch in the upper continental slope bottom-trawl

fishery. The trawl we tested differed from typical slope trawls in that it was a low-rise, two-seam trawl with a severely cut-back headrope. The study used an alternate haul, randomized block design to compare catches of the experimental trawl with those of a typical 4-seam, high-rise design. A similar protocol was used to investigate diurnal changes in catch rates for both trawls. The experimental trawl had similar catches of all commercially valuable flatfish except arrowtooth flounder (*Atheresthes stomias*), which was reduced 24%. Catches of most rockfish and roundfish were significantly reduced (50-94% depending on species). However, the catches of darkblotched rockfish (*Sebastes crameri*) and redbanded rockfish (*Sebastes babcocki*) were not reduced significantly in the experimental trawl. Diurnal comparisons showed nighttime catches were reduced 30-99% for most rockfish species, with the experimental trawl showing greater reductions. The nighttime catch reduction for darkblotched rockfish with the control trawl (-86%) along with no reduction in Dover sole catches, suggests that fishing only at night may be a viable bycatch reduction strategy for darkblotched rockfish.

Also in 2003, the Oregon Department of Fish and Wildlife and the Northwest Fisheries Science Center of NOAA conducted an EFP fishery test of a new selective flatfish trawl to estimate bycatch rates in the continental shelf flatfish fishery. Eight vessels participated, with observer coverage from May through October 2003. We observed a total of 112 trips and 1,125 tows; with 721 tows in the RCA, and 404 shallower than the RCA. The trawl performed well and reductions in bycatch observed were consistent with the effects previously demonstrated in the controlled experiments. We recommended that a flatfish target fishery using this trawl be developed for use on the continental shelf off the west coast as a mechanism to reduce bycatch of some critical rockfish species. The results of the research and EFP activities were presented to the Pacific Fishery Management Council's Groundfish Management Team and Scientific and Statistical Committee. A fishery using this trawl is undergoing council analysis for implementation in 2005-2006 management measures.

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steve.parker@oregonstate.edu bob.hannah@oregonstate.edu

8. Nearshore Reef Habitat Studies:

Nearshore reef habitat studies continued on subtidal rocky bottom habitats off the Oregon coast. ODFW contracted with SeaVisual Consulting Inc to conduct a multi-beam sonar survey of Siletz reef north of Newport OR in October 2003. Over 31 km² of rocky reef habitat was mapped in this survey as a component of a larger study to characterize fish populations and fine-scale habitat usage on a large, heavily fished nearshore reef complex.

ODFW staff returned to Cape Perpetua for a fourth year to conduct ROV surveys of fish populations and habitat associations. Twelve transects, nearly all of them repeats of previously surveyed transects, were surveyed over two days in August 2003. We expect the analysis of these transects to document the continued recovery of this reef following the hypoxia event of July 2002.

a. GIS Description:

The Marine Resources Program GIS was summarized in the 1997 TSC report. Additions to the GIS in 2002 are listed below.

b. Base Maps and Baseline Data

Base Maps

No additions for 2003.

Baseline Data

Fish densities by habitat type at Cape Perpetua reef.

c. Software

No additions for 2003.

d. Bathymetric Data Sources

Multibeam sonar survey of the Siletz reef complex, 31 km².

Contact: Hal Weeks at (541) 867-0300 ext. 278 Hal.Weeks@state.or.us.

9. Pelagic Species:

Refer to section on Pacific sardine

Contact Jean McCrae for more information (541-867-4741).

10. Developmental Fisheries Project:

The ODFW Developmental Fisheries Program was created to allow for controlled development of new species and fisheries. Each year, the Developmental Fishery Board recommends to the Oregon Fish and Wildlife Commission a list of food fish species that are considered to be developmental and a harvest program which includes a limited entry system. The Developmental Fishery Board is made up of members from a broad range of fishing interests (harvesters, processors, and state agencies).

In 2003, a total of 215 permits were issued for all species; 136 permits for finfish species. The main finfish of interest were nearshore rockfish (added to the developmental species list in 2003), for which there were 70 permits issued. Other finfish species for which we issued permits were hagfish (25), sardines (20), anchovy/herring (14), swordfish (4), blue shark (1), slender sole (1), and pomfret (1).

Most developmental species were landed as bycatch in other established fisheries. However, landings of sardines increased again in 2003. Seventeen vessels landed 55.7 million pounds (25,258 mt); an 11% increase from 2002. We were, again, unable to hire a

seasonal worker to conduct ride-along trips to observe bycatch, but staff made a few observed trips. From observed trips and logbook data, bycatch consisted of sharks and some salmon. Salmon averaged 0.8 per trip, with 63 % being released alive. Logs (accounting for 92% of the landings) show 65 % of the harvest was taken off Oregon and 35 % off southern Washington. Incidental landings of mackerel accounted for approximately 0.6 % of the catch.

Market samples of sardines were collected for length, weight, maturity, and age data. The average length and weight for all samples was 217 mm (standard length) and 175 gm. Industry had some problems marketing fish harvested in 2003 because of large sizes. This larger size is not reflected in the overall averages because there was also an increase in smaller fish. For example, in 2002, there was very few fish less than 200 mm in length. In 2003, almost 22% were smaller than 200 mm.

Contact Jean McCrae for more information (541-867-4741).

11. Cooperative Ageing Unit:

ODFW ended their supervisory relationship with the NOAA's Northwest Fishery Science Center Cooperative Ageing Unit at Newport in September of 2003. Since that time, the ODFW age and growth biologist has continued working with the Cooperative Ageing Unit on Dover sole. In addition, a new age reader was trained to age various species of perch (redtail, silver, striped, white and pile). Work is being done on black rockfish, kelp greenling, English sole, and shortraker rockfish. ODFW has provided information and samples for part of a permanent exhibit at OMSI on age and growth in nature, and recently added more information and samples for the OMSI travelling exhibit that begins its national tour at the beginning of May. ODFW is collaborating with scientists from NMFS on a series of age-validation studies (one in review, others in the planning stages). ODFW also participated in the annual Dover sole workshop in Eureka, California.

Contact Bob Mikus (541) 867-0300, ext. 247. bob.mikus@oregonstate.edu

12. Logbooks:

Status of Oregon logbooks is as follows:

<u>Type</u>	<u>Years</u>	<u>Entered</u>	<u>Verified</u>
1) Trawl Log	'76 – '03	Thru '03	'02
2) LE Sable Logs	'79 – '03	None	None
3) H&L Volunteer Logs	'88, '92 & '94 – '00	Thru '99	None
4) Nearshore Logs*	2004	None	None
*new in '04			

C. BY SPECIES

1. Pacific cod:

No work was conducted on Pacific cod. Usually, few fish are found in the trawl landings, but 2003 was one of the best years for Pacific cod in recent years. Total Oregon Pacific cod landings were up over 1,000% at 634,894 pounds (288 mt) in 2003 compared to 59,352 pounds (27 mt) in 2002.

Contact Mark Saelens or Bill Barss (541) 867-0300 ext. 251 or 222
mark.saelens@oregonstate.edu William.H.Barss@state.or.us

2. Nearshore

a. *Oregon Nearshore Permit:*

In 2003, a new permit was required to land 21-nearshore species in Oregon. These species included buffalo sculpin, red Irish lord, brown Irish lord, cabezon, kelp greenling, rock greenling, whitespotted greenling, painted greenling, kelp rockfish, brown rockfish, gopher rockfish, copper rockfish, black and yellow rockfish, calico rockfish, quillback rockfish, vermilion rockfish, china rockfish, tiger rockfish, grass rockfish, olive rockfish, and treefish. Seventy vessels qualified for this permit.

b. *Black rockfish:*

1) Coastwide sampling continues on recreational catches of black rockfish. Black rockfish are the most frequently caught fish in the ocean boat recreational fishery, and about 250,000 to 350,000 fish have been harvested annually in recent years. Port samplers take market samples from commercial landings. Recreational and commercial sampling includes biological sampling for age, length, sex and maturity. Age determination is done by ODFW.

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2) Total commercial Oregon landings were 259,291 pounds (118 mt) which was slightly down from the 2002 landings of 280,227 pounds (127 mt).

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3) **Black rockfish PIT tagging**

Oregon's primary recreational groundfish fishery targets the nearshore species, black rockfish (*Sebastes melanops*). Previous assessments relied on the relative CPUE trends derived from recreational fishery sampling programs. These data are not robust to problems of sampling bias or changes in fishing distribution, and can

result in errors in the trend of relative population abundance. The need to independently estimate exploitation for black rockfish off Oregon prompted us to investigate the use of passive integrated transponder (PIT) tags for a mark-recapture program. Because PIT tags are invisible to anglers, there is no tag non-reporting problem, and tag detection rates can be estimated directly. We tagged 2,550 fish in 2002, and 3,000 fish in 2003 (29 – 54 cm) with PIT tags (12mm x 2mm) during 20 days of fishing each year near Newport, Oregon. Tags were injected in the hypaxial musculature below the gill arches, determined to be the best site by a previous PIT tag retention study. At tagging, categorical barotrauma symptoms were noted and each fish was recompressed by immediate submersion in a cage and release at depth. During the fishing seasons (May – October), carcasses of almost all black rockfish landed by charter vessels in Newport and Depoe Bay were counted by samplers and electronically scanned for tags. We have had good recoveries each year (52 and 86) and exploitation rates are within expected assessment values of approximately 5%. This program design will integrate well with the current tagging program used by Washington state and may result in a valuable abundance index for a combined Oregon – Washington assessment. We have begun the third year of tagging and will likely continue the project for the next 5 years.

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4) Barotrauma in rockfishes

We have built three pressurized aquaria that can hold up to 6 rockfish each and simulate depths of up to 30 m. We have documented the acclimation rates for black rockfish to increases and decreases in ambient pressures along with the physical symptoms associated with this barotrauma. We have also conducted process-oriented experiments to simulate hook and line capture and ascent to document physiological symptoms and mortality associated with capture. This information is intended to address assumptions in our PIT tagging program related to tagging mortality.

Contact: Steve Parker or Bob Hannah at 541-867-4741
Steve.parker@oregonstate.edu, bob.hannah@oregonstate.edu

5) Oregon House Bill 3108

In 2003, Oregon House Bill 3108 was passed by the Oregon Legislature. This bill established a black rockfish and blue rockfish vessel permit is required for commercial harvesters to land black rockfish and blue rockfish in Oregon beginning on January 1, 2004, except for minor exceptions. Vessels qualified for this permit by historically landing a minimum of 750 pounds of nontrawl caught black rockfish, blue rockfish or nearshore fish in any one calendar year between January 1, 1995 and July 1, 2001, to a licensed Oregon fish processor. About 180 vessels qualified for this permit. In 2004, this permit with a nearshore fish endorsement will be required to land the 21 nearshore species listed under Oregon's 2003 nearshore permit.

Contact: Bill Barss at 541-867-0300 ext. 222, William.H.Barss@state.or.us

3. Shelf rockfish

a. Widow rockfish - coastwide sampling continues for age, length and sex. Age determination is done by NMFS, Tiburon. Oregon landings in 2003 were 126,710 pounds (57 mt) which is considerably down from 557,190 pounds (253 mt) in 2002.

b. Canary rockfish - coastwide sampling continues for age, length and sex. Age determination is done by ODFW. Oregon landings continued to be extremely low. In 2003, they were only 8,111 pounds (3.7 mt) which down from the 38,190 pounds (17 mt) in 2002.

c. Yellowtail rockfish - coastwide sampling continues for age, length and sex. Age determination is done by WDFW. Oregon landings in 2003 were about 123,547 pounds (56 mt) which was a big decrease from about 774,214 pounds (351 mt) in 2002.

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4. Slope rockfish

In 2003, most sampling was limited to species composition sampling. Length frequency samples and age structures were taken on selected. Pacific ocean perch landings were 215,516 pounds (98 mt) which was down from 235,660 pounds (107 mt) in 2002. Darkblotched rockfish were 146,514 pounds in 2003 (66 mt) which is a modest increase from 116,158 pounds (53 mt) in 2002.

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5. Thornyheads

Sampling included sampling for species composition, length frequency, age and sex. Oregon landings of longspine thornyhead decreased to 1,623,489(736 mt) in 2003, which was about a 12% decrease from 1,835,958 (833 mt) in 2002. In 2003. Oregon landings of shortspine thornyhead were 652,488 pounds (296 mt), which was about a 13% increase from 577,238 pounds (262 mt) in 2002.

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6. Sablefish

a. Routine age samples were obtained on sablefish. Otoliths were sent to the NMFS Ageing Unit in Newport, Oregon for age determination. Oregon landings were 4,797,600 pounds (2,176 mt) in 2003, which was up 51% from 3,184,824 pounds (1,445 mt) in 2002.

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b. Stress and Reproductive Physiology of Deepwater Sablefish

We collaborated with Michael Schirripa of NOAA, NWFSC to collect blood samples at sea from sablefish captured using pot gear as part of his survey expansion into deep water experiments. We collected plasma samples from over 60 fish, all from relatively deep depths, and subjected to varying periods of thermal stress during retrieval. In addition to stress physiology, we plan to measure sex steroids to evaluate reproductive status of fish inhabiting deep water (>700 fm).

Contact: Steve Parker (541) 867-0300 ext. 256 steve.parker@oregonstate.edu

7. Flatfish

a. Nearshore flatfish

We saw a reverse of the previous year, with most Oregon nearshore flatfish landings were down in 2003 while landings of flatfish from deep water were generally up. Dover sole were 8,034,308 pounds (3,644 mt) up 34% from 6,001,276 pounds (2,722 mt) in 2002. Landings of English sole were 777,840 pounds (353 mt) down 19% from were 960,016 pounds (435 mt) in 2002. Landings of petrale sole were 2,510,664 pounds (1,139 mt), up 28% from 1,967,931 pounds (892 mt), in 2002. Landings of arrowtooth flounder were up by 60% at 1,786,095 pounds (810 mt) compared to 1,113,097 pounds (505 mt) in 2002. Pacific sanddab landings were down 53% at 237,096 pounds (108 mt) compared to at 500,621 pounds (227 mt) in 2002.

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b. Pacific halibut

- 1) Weekly harvest in the recreational and also the commercial fishery were monitored for quota tracking purposes. The majority of recreational caught fish continue to be landed into Newport and Garibaldi. In 2003, the directed recreational fishery was open over 20 days, which was drastically down from a decade ago when it was open nearly year round. The commercial directed fishery was open for three 10-hour periods. In 2003 as in recent years, the recreational and commercial fisheries received equal allocations.
- 2) Public meetings were held to discuss 2003 recreational fishery structuring and proposed changes to the 2004 catch sharing plan for Oregon recreational fisheries.
- 3) In 2003, Oregon commercial fishers landed 341,521 pounds (155 mt) down 35% from 529,194 pounds (240 mt) in 2002.
Contact Don Bodenmiller (541) 867-0300 ext. 223
don.bodenmiller@oregonstate.edu

8. Pacific whiting

The Shoreside Hake Observation Program (SHOP) was established in 1992 to provide information for evaluating bycatch in the directed Pacific hake (*Merluccius productus*) fishery and for evaluating conservation measures adopted to limit the catch of salmon, other groundfish and prohibited species. The PFMC's optimum yield (OY) increased from 129,600 mt to 148,200 mt metric tons (mt) in 2003 (Table 1). The tribal fishery was allocated 16.9% of the OY (25,000 mt) and began harvesting on June 13th, 2003. Commercial fisheries received 83.1% of the U.S. OY. Allocations were 42% to vessels landing at shoreside processing plants (50,904 mt) (up from 44,906 mt in 2002), 34% to catcher/processors (41,208 mt), and 24% to catcher vessels delivering to motherships (29,088 mt). As of September 25, 2003 the mothership, catcher/processor and tribal fisheries continue to harvest the allocations. The mothership fishery has completed 89.4% (26,021 mt), catcher/processor fishery 89.7% (36,981 mt) and the tribal 89.0% (22,274mt). It is expected that the at-sea sectors will harvest their full allocations. Even though the shoreside allocation was increased, the 30-day shoreside season is the shortest since 1992 or program inception. The shoreside directed fishery closed on July 14th at 12:00p.m. and harvested 51,061 mt (0.31% over the allocated amount). . Samplers measured 2,608 Pacific hake for length-frequency information, and collected 1,580 Pacific hake otolith samples, along with length and weight information. . Yellowtail rockfish otoliths and length-frequency information are provided to Sandra Rosenfeld at the Department of Fisheries Marine Fish & Shellfish Division in Olympia, Washington for future stock assessments on this species. Biological samples of Pacific mackerel are provided to the CDFG for their stock assessment work on this species. Biological samples of widow rockfish are sent to Don Pearson NMFS in Santa Cruz, California. Sablefish, jack and pacific mackerel, darkblotched, bocaccio and canary rockfish have been retained at ODFW and are available for future assessment efforts. Past shoreside hake observation reports are available on the internet at <http://hmsc.oregonstate.edu/odfw/reports/whiting.html>

Contact: Brett Wiedoff or Steve Parker at 541-867-4741
Brett.L.Wiedoff@state.or.us

9. Dogfish

No work was conducted on dogfish. Landings were very small in 2003 and decreased to 22,021 pounds (10 mt), down 34% from 33,424 pounds (15 mt) in 2002.

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10. Lingcod

a. In 2003, Oregon commercial landings were 152,628 pounds (69 mt) which is down 16% from 2002 landings of 181,071 pounds (82 mt).

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b. Age samples were collected from the commercial fishery and sent to Washington Department of Fish and Wildlife, Seattle for age determination. ODFW continued collecting age samples from the recreational fishery in 2003. In 2003, ODFW staff finished ageing the lingcod fin rays sampled in the 2001-2002 recreational fishery, and processed about 1/2 of the fin rays from 2002-2003 recreational fishery.

Contact: Bob Mikus (541) 867-0300 ext. 247 bob.mikus@oregonstate.edu

11. Mackerel and Sardines

a. Mackerel

In 2003, landings of Pacific mackerel and jack mackerel combined were up at 515,006 pounds (234 mt), up 72% from 298,922 pounds (136 mt), in 2002. Almost all Oregon mackerel landings are landed as bycatch from the Pacific whiting fishery.

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b. Pacific Sardine

In 2003, landings for sardine continued to increase. Seventeen vessels landed 55.7 million pounds (25,258 mt); an 11 % increase from 2002. Most of the sardine catch was by seine gear (99 %), and fish were landed into Astoria and processed as bait for a Japanese longline fishery. Incidental landings of mackerel accounted for approximately 0.6 % of the catch.

We were, again, unable to hire a seasonal worker to conduct ride-along trips to observe by-catch, but staff made a few observed trips. From observed trips and logbook data, bycatch consisted of sharks and some salmon. Salmon averaged 0.8 per trip, with 63 % being released alive. Market samples were collected for length, weight, maturity, and age data. The average length and weight for all samples was 217 mm (standard length) and 175 gm. Industry had some problems marketing fish harvested in 2003 because of large sizes. This larger size is not reflected in the overall averages because there was also an increase in smaller fish. For example, in 2002, there was very few fish less than 200 mm in length. In 2003, almost 22% were smaller than 200 mm.

Contact Jean McCrae for more information (541-867-4741).

12. Other

a. Surfperch

Surfperch activity was limited to biological sampling of carcasses and processing recaptured tagged surfperch. Carcasses and tags were provided by cooperating sport fishers.

Contact: Don Bodenmiller (541) 867-0300 ext. 223 don.bodenmiller@state.or.us

Processors reported receiving only 134 pounds of surfperch in 2003, which is a similar to the low 100 pounds in 2002. Interest continues for the commercial harvests of surfperch, especially in Oregon's south coast area. In 2003, commercial harvest of surfperch was again prohibited in the months of August and September to protect redbait surfperch during the months that they spawn off Oregon.

Contact: Bill Barss (541) 867-0300 ext. 222, William.H.Barss@state.or.us

b. Pacific herring

The Yaquina Bay commercial roe herring seine fishery landed 207,203 pounds (94 mt). The herring in the bay spawned before fishers reached the quota of 277,200 pounds (126 mt). An additional 8,987 pounds (4 mt) of herring were landed in Astoria and Winchester Bay, destined for the bait market.

Contact: Keith Matteson (541) 867-0300 ext. 244
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c. Hagfish

In 2003, Oregon commercial landings of hagfish were 955,562 pounds (433 mt) up 38% from the 691,085 pounds (313 mt) in 2002. This is the highest catch on record for Oregon hagfish landings. The previous record landing was 751,281 pounds in 1992.

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d. Skates

In 2003, landings of skates were 2,077,456 pounds (942 mt) which was up 91% from 1,087,592 pounds (493 mt) in 2002. Species composition and length frequency samples were taken.

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Publications

Davis, M. W. and S. J. Parker. Submitted. Fish sensitivity to bycatch discard stressors is size-related: Implications for sablefish highgrading and discard mortality rates. North American Journal of Fisheries Management.

Hannah, R.W., S. A. Jones and K. M. Matteson. 2003. Observations of fish and shrimp behavior in ocean shrimp (*Pandalus jordani*) trawls. Oregon Dept. Fish Wildl., Information Rept.Ser., Fish. No. 2003-03. 28p.

Hannah, R.W. 2003. Spatial changes in trawl fishing effort in response to footrope diameter restrictions in the U.S. west coast bottom trawl fishery. N. Amer. J. of Fish. Mgt. 23:694-703.

Hannah, R. W., S. J. Parker and T. V. Buell. (in review at Fisheries Research). Tests of a selective flatfish trawl in the deepwater complex fishery off the U. S. west coast.

King, S. E., R. W. Hannah, S. J. Parker, K. M. Matteson, and S. A. Berkeley. 2004. Protecting rockfish through gear design: Development of a selective flatfish trawl for the U.S. West Coast bottom trawl fishery. Canadian Journal of Fisheries and Aquatic Sciences. 61:xx-xx.

Milston, R., M. W. Davis, S. J. Parker, B. L. Olla, C. B. Schreck. Submitted. Characterization of the physiological stress response in Lingcod. Transactions of the American Fisheries Society

Parker, S. J., and P. S. Rankin. 2003. Tag location and retention in black rockfish (*Sebastes melanops*): Feasibility of using PIT tags in a wild marine species. North American Journal of Fisheries Management 23:993-996.

Parker, S. J., P. S. Rankin, R. W. Hannah, and C. B. Schreck. 2003. Discard mortality of trawl-caught lingcod in relation to tow duration and time on deck. North American Journal of Fisheries Management 23:530-542.

Parker, S. J., M. R. Saelens, S. A. Kupillas and R. W. Hannah. 2004. Using an exempted fishing permit for a large-scale test of a selective flatfish trawl in the continental shelf flatfish fishery. Oregon Dept. Fish Wildl., Information Rept.Ser., Fish. No. 2004-01. 22p.

Projects planned for year 2004:

1. An EFP will be conducted to test a market-based discard reduction strategy in the deepwater complex trawl fishery.

Contact: Bob Hannah (541) 867-0300 ext. 231 bob.hannah@oregonstate.edu.

2. Maturity data will continue to be collected for several nearshore and offshore rockfish species.

Contact: Bob Hannah (541) 867-0300 ext. 231 bob.hannah@oregonstate.edu.

3. Black rockfish Telemetry: A study to document the use of space by black rockfish off Oregon will use a moored acoustic receivers and pressure sensitive acoustic transmitters to show how

range size, scale of local movements, degree of vertical movement of a daily basis, and possible seasonal movements along shore or into deeper water.

Contact: Steve Parker at 541-867-4741 Steve.parker@oregonstate.edu

4. Barotrauma in rockfishes: We will continue work to document mortality rates, determine acclimation rates, and study physiological effects of barotrauma in black rockfishes and plan to expand to other nearshore rockfishes. This work is intended to supplement our black rockfish tagging study and also to develop and test rockfish re-pressurization release devices for use in the recreational groundfish fishery.

Contact: Steve Parker or Bob Hannah at 541-867-4741 Steve.parker@oregonstate.edu

5. Nearshore Reef Habitat Studies in 2004 will include limited ROV surveys of rocky reefs in the Newport area. Study sites have not been selected at this time.

Contact: Hal Weeks, (541) 867-0300, ext 279; Hal.Weeks@state.or.us

6. The cooperative sampling project with the Port Orford Ocean Resource Team (POORT), will start in February of 2004 and will continue through December of 2004, with the possibility of extending through 2005 if POORT funds are available. The project involves POORT contracting a commercial fishing vessel to catch three nearshore species of fish, china rockfish, kelp greenling, and cabezon. ODFW will supply most of the sampling equipment and POORT will supply the crew from the fishing industry to sample the retained nearshore species. Our Brookings Port Biologist, Carla Sowell, will train the sampling crew. The sampling crew will record the species, length, and weight of the fish, and then collect biological samples, including otoliths for aging, gonad samples for histology, and fin-clips for genetic sampling. The biological samples will be stock piled until funding is available to analyze the data collected.

For information contact Carla Sowell at (541) 412-7395 odfwbrookings@wave.net.

7. In February 2004, Marine Resources Program will begin developing a comprehensive, nearshore marine resource management plan. The planning project involves three primary components: information-gathering, public process, and plan development. The public process includes a stakeholder advisory committee and public meetings to guide plan development. Participation will also be solicited from representatives of academia, government agencies, environmental organizations, and other interested groups. Individual experts will be consulted on specific issues as necessary. The product will be a plan document outlining conservation strategies, management regulations, and biological and ecological and ecological information on nearshore species. The nearshore plan is being developed in conjunction with a larger statewide wildlife conservation planning effort.

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