



42nd Annual Report of the

PACIFIC STATES MARINE FISHERIES COMMISSION

FOR THE YEAR 1989

**TO THE CONGRESS OF THE UNITED STATES AND TO THE
GOVERNORS AND LEGISLATURES OF WASHINGTON,
OREGON, CALIFORNIA, IDAHO AND ALASKA**

PSMFC COMMISSIONERS 1989

Brad Owen, Chairman

ALASKA

RICHARD ELIASON
Alaska State Senate

FREDGAFFNEY Alaska
Dept. Fish & Game

PETE ISLEIB
Governor's Appointee

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California State Assembly

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California Dept. Fish
&Game

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Idaho State Senate

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Dept. Fish & Wildlife

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Washington State
Senate

ROBERT TURNER
Washington Dept. Fisheries

ROBERT ALVERSON
Governor's Appointee

PSMFC EXECUTIVE STAFF 1989

Guy Thornburgh, Executive Director

RUSSELL PORTER
Assistant Director

DAVID L. HANSON
Fisheries Coordinator

J.KENNETH JOHNSON
RMPC Coordinator

WILL DASPIT PacFIN
Data Manager

PAM KAHUT
Fiscal Manager

MARYWASHKOSKE
Personnel/Fiscal Asst.

JERRY FISHER
Treasurer

GLORIA SMITH
System Planning
Contract Specialist

JIM LONGWILL
RMPC Programmer

THERESA FOGG
Secretary

YVONNE NYLUND
PacFIN Programmer

ED KIEL
PacFIN Computer Aide

42nd Annual Report
of the
**PACIFIC STATES MARINE
FISHERIES COMMISSION**
FOR THE YEAR 1989

To the Congress of the United States and the Governors and Legislatures of the Five Compacting States, Washington, Oregon, California, Idaho, and Alaska, by the Commissioners of the Pacific States Marine Fisheries Commission in Compliance with the State Enabling Acts Creating the Commission and Public Laws 232; 776; and 315 of the 80th; 87th; and 91st Congresses of the United States Assenting Thereto.

Respectfully submitted,
PACIFIC STATES MARINE FISHERIES COMMISSION

GUYTHORNBURGH, Executive Director

Headquarters
2501 S.W. First Avenue, Suite 200
Portland, Oregon 97201-5346

Russell G. Porter
EDITOR
September, 1990

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CONTENTS

ANNUAL MEETING EVENTS	1
Summary	1
Special Issues	1
Seafood Surveillance	1
High Seas Driftnets.....	1
Business Meeting	1
1990 Annual Meeting.....	1
PSMFC Annual Award.....	1
ADMINISTRATIVE REPORTS AND ACTIONS.....	2
Executive Director's Report	2
Federal Appropriations FY 1990.....	2
PSMFC Regional Data Projects.....	3
Fishery Management Plans.....	3
Industry Support.....	3
Contract Services.....	4
External Affairs.....	5
1989 Publications	5
FINANCIAL, AUDIT AND BUDGET REPORTS	6
1989 Financial Statement	6
1989 Audit Report.....	7
Balance Sheet.....	8
1989 Budget Reports.....	9
PACIFIC COAST FISHERY REVIEW REPORTS.....	10
Albacore Fishery in 1989.....	10
Pacific Halibut Fishery in 1989	12
Groundfish Fishery in 1989	13
Dungeness Crab Fishery in 1988-1989.....	16
Troll Salmon Fishery in 1989	17
Salmon and Steelhead Sport Catch in 1988.....	20
Shrimp Fishery in 1989.....	21
Joint Venture Fisheries off the Pacific Coast in 1989	22
PERSONNEL.....	24
Commissioners	24
Advisors	24
Coordinators	24
PSMFC Executive Staff	24
10-Year Staff Awards	24

42ND ANNUAL REPORT-1989

ANNUAL MEETING EVENTS

SUMMARY

The Pacific States Marine Fisheries Commission's 42nd Annual Meeting was held on October 16-18, 1989 in Seattle, Washington. The meeting was conducted by Chairman Brad Owen of Washington. The Annual Meeting included In-state meetings for the five member states and two half-day panel discussions. The panels addressed Seafood Surveillance and High Seas Foreign Driftnets. The meeting also included the annual business meeting and two luncheon speakers. Mr. Chuck Meachum, Jr. of Alaska Department of Fish and Game delivered an impressive slide presentation to the Commission on the Alaska oil spill. Mr. Rollie Schmitt, National Marine Fisheries Service, Northwest Regional Director spoke at the banquet on this summer's "sting" operation on the illegal Taiwanese salmon fishing and showed a video of enforcement efforts.

SPECIAL ISSUES

Seafood Surveillance. Mr. Joe Easley, Executive Director of the Oregon Trawl Commission, moderated the October 17 morning session on seafood surveillance. Panelists included Dr. Malcolm Meaburn of NOAA Fisheries' Model Seafood Surveillance Program, Mr. Ron Rogness of the National Fisheries Institute, and Dr. Arthur Whitely, professor emeritus of the University of Washington. Dr. Meaburn reviewed the process of the Model Seafood Surveillance Program, explained the HACCP (Hazard Analysis Critical Control Point) approach to surveillance, and discussed the Department of Commerce position on legislation. Mr. Rogness explained the seafood industry's desire for a mandatory inspection program within the Department of Agriculture that follows the HACCP concept and puts import products on parity with domestic products. Dr. Arthur Whitely addressed his investigations into antibiotics and other additives to pen reared fish.

High Seas Driftnets. Mr. C. Deming Cowles, attorney and environmental/fisheries consultant from Washington, D.C., moderated the October 17 afternoon session on foreign high seas driftnet fisheries. Panelists included Ms. Kate Graham, Executive Director of the United Fishermen of Alaska; Mr. Jay Hastings, representative of the Japan Fisheries Association; Mr. Steve Pennoyer, Director of the Alaska region of NMFS; and Mr. Larry Sneed, Director of the State Department's Office of Fisheries Affairs. Ms. Graham summarized the attitudes, concerns and progress of domestic fishermen on this issue. Mr. Hastings discussed Japan's involvement in high seas fisheries and the distinction between Japan and Korea/Taiwan. Mr. Pennoyer summarized the history of high seas fisheries in the Pacific and progress to date in monitoring and enforcement. Mr. Sneed explained the State Department's involvement with this issue since the early 1980's and recent negotiations with the three foreign nations.

BUSINESS MEETING

The Commission took the following actions at the October 18th business session:

1. A draft Thresher Shark fishery management plan was approved for distribution to the public for review and comment.
2. The Commission supports a ban of high seas driftnets (nets longer than one and one-half miles in length fished beyond any nation's 200 miles EEZ).
3. PSMFC supports mandatory, federally funded sea-

food inspection that uses the HACCP approach and requires foreign imports to meet any health standards imposed on domestic seafood production and/or surveillance.

4. Marine Mammal Protection Act. The Commission instructed its staff to focus considerable energy in 1990 on the gray whale as a test of the integrity of the Endangered Species Act process for downlisting or delisting species; tracking the status of the Stellar sea lion population in Alaska; and participating in the MMPA process for developing a long term solution to mammal/fishery interactions.

5. The Commission supported the use of its Interjurisdictional Fisheries Act monies for the development of interstate plans for Dungeness crab and shrimp.

1990 ANNUAL MEETING

The 1990 Annual Meeting will be held in Sitka, Alaska, October 22-24, 1990 at the Westmark Shee-Atika Hotel. Mr. Pete Iseib of Juneau, Alaska was elected chairman for calendar year 1990.

ANNUAL PSMFC AWARD FOR CONTRIBUTION TO PACIFIC COAST FISHERIES

JOHN "JED" ARNOLD

The Commission's annual award for contributions to Pacific coast fisheries was established in 1987. Its purpose is to honor special individuals with interests in fisheries who have made extremely significant contributions toward promoting fisheries in our member states.

The 1989 award was presented to Captain John "Jed" Arnold of the vessel REDFIN. The REDFIN was used by NMFS enforcement during the at-sea "sting" operation that caught the Taiwanese blatantly stealing North American salmon and steelhead. Captain Arnold's involvement in the operation was a major factor in its success. His professional seamanship in screening the awaiting U.S. Coast Guard Cutter from view by the Taiwanese vessel was a major factor in its success. His contribution helped bring this important issue visibly to the American public. The Commission is proud to present its 1989 award to Captain Arnold.



Captain John "Jed" Arnold aboard the REDFIN during the NOAA "sting" operation.

ADMINISTRATIVE REPORTS AND ACTIONS

EXECUTIVE DIRECTOR'S REPORT

I am pleased to report that the Pacific States Marine Fisheries Commission¹ experienced both a productive and a progressive year. PSMFC, representing the agencies, recreational fishermen and commercial fishing industry of its five member states, made considerable progress working with Congress to enhance the appropriations for the National Marine Fisheries Service; fully utilizing Interjurisdictional Fisheries Act and Wallop/Breaux monies for multistate fisheries planning; expanding its role as custodian and coordinator of coastwide fisheries computerized databases; increasing its contract services for the states and related agencies; and working hand-in-hand with fishermen on issues such as marine mammal/fishery interactions, marine debris, and vessel safety. All of these activities are explained more fully in this document.

The role of PSMFC is well defined to compliment (not compete with or duplicate) the functions and responsibilities of the States, Regional Councils and International Commissions in the conservation of living marine resources and also to assist fishermen (commercial, recreational, subsistence and tribal) in achieving rational use of these resources.

Looking forward to the final decade of this century, PSMFC will focus particular interest and concern on the health of our marine environment while continuing consumptive uses which benefit so many people in the Nation. Three words describe the Commission's mission for the 90's: Habitat, access and data.

Habitat is the foundation for all uses of living marine resources and the habitat must be protected from contamination, destruction, and overuse. Fishermen are a dominant user of living marine resources so fishermen need to take a lead in assuring the maintenance of a healthy, productive environment. Fishermen Involved in Saving Habitat (F.I.S.H.) is a coalition for the conservation of aquatic habitat. During the 90's PSMFC will work through F.I.S.H. to achieve awareness and action by users of the marine environment for the protection of their critical habitat.



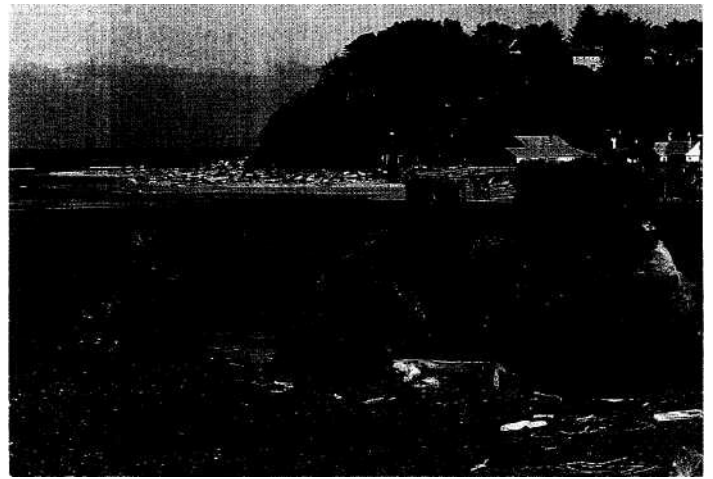
Wetlands such as this salt marsh are an important part of the marine ecosystem and food chain. (Photo by Dennis Peters, USFWS)

¹ During 1989 the Commission changed its name by adding the word "States". This brings the Commission into conformity with the naming of the other two marine compacts, the Atlantic States Marine Fisheries Commission and the Gulf States Marine Fisheries Commission.

Maintaining a productive habitat will assure a supply of fish for anglers, commercial harvesters and of course consumers. However, ACCESS to this available supply of the resources must also be maintained. More and more a demand for nonconsumptive use of living marine resources will try to prevent access to the resource by fishermen. PSMFC recognizes the need to continue its advocacy for the privilege to use living marine resources in a balanced ecosystem that is managed for man's inherent interest to consume.

Finally, PSMFC believes that rational people should make their decisions based on fact (requiring DATA); not emotion, speculation or unfounded assumptions. PSMFC will expand its role in the collection and processing of fishery related information and its availability to decision makers.

Working together, the fishermen and agencies in Alaska, California, Idaho, Oregon and Washington will use PSMFC to help sustain the tremendous value of the fishery resources of the Pacific Ocean.



Estuaries provide important habitat during various stages in the life-cycle of many marine fishes. (PSMFC Photo)

FEDERAL APPROPRIATIONS FY 1990

The October 20, 1989 Conference Committee action for NMFS appropriations was great news for Pacific ocean fisheries. The FY90 budget is \$17 million more than FY89, an increase that was long overdue. New monies included \$1 million for PacFIN (the Pacific Fisheries Information Network that provides basic fisheries data for use by Regional Management Council FMP's); \$7.5 million for implementation of MMPA; \$3 million for implementing the Driftnet Act; and an increase of \$1.5 million in enforcement. Contrary to the President's proposed reductions in many long standing projects, Congressional appropriations for these were level funded, including the interjurisdictional fisheries grants, the anadromous grants, Interstate Fisheries Commissions, Mitchell Act hatcheries, Pacific Salmon Treaty, regional councils, west coast groundfish, Alaska salmon enhancement, gear entanglement, and Oregon Sea lions.

Unfortunately the request for Bearing Sea groundfish research was not funded but NMFS was encouraged to consider this work as high priority for discretionary funds.

The Fisheries Coalition for An Effective Fisheries Budget is commended for its efforts to unite and work diligently with Congress to achieve the FY90 appropriation. Coalition members are listed below. Special recognition goes to Mr. John Peterson of Seattle for helping organize the coalition; Dr. Don Bevan (PSMFC's Federal Budget Committee Chairman) of Seattle for structuring the Coalition's platform and for spending considerable time on Capitol Hill; Mr. C. Deming Cowles for organizing efforts on the Hill and working

so effectively with the delegations; and Senator Brad Owen (PSMFC chairman) for his trip to the Hill.

PSMFC is committed to continuing its efforts to sponsor these lobbying efforts. A fully funded NMFS budget is necessary for productive recreational and commercial fisheries, as well as a healthy marine habitat.

Fisheries Coalition

Alaska Crab Coalition
Alaska Druggers Assn.
Alaska Factory Trawlers Assn.
Alaska Groundfish Data Bank
American High Seas Fisheries Assn.
American Samoa Aiga Fisheries Comm.
American Samoa Gamefishing Assn.
Bering Sea Fishermen's Assn.
CNMI Sports Fishermen Assn.
Eureka Fisheries Fishing Vessel Owners Assn.
Guam Fishermen's Cooperative Assn.
Hawaiian International Billfish Assn.
Hawaii Seafood Promotion Comm.
The Highliners
Kodiak Longline Vessel Owners Assn.
Midwater Trawlers Cooperative
North Pacific Vessel Owners Assn.
Northwest Fisheries Assn.
Oregon Trawl Commission
Pacific Coast Federation of Fishermen's Assn.
Pacific Seafood Processors Assn.
Tautai O Samoa Fishery Assn.
United Fishermen of Alaska
United Fishermen's Marketing Assn.
United Fishing Agency of Hawaii

PSMFC REGIONAL DATA PROJECTS

The Commission administers four regional computerized fisheries databases. Each database has a steering committee of state and federal agency representatives plus a PSMFC employee serving as database administrator.

Regional Mark Processing Center All data relating to releases and recoveries of salmon and steelhead with finclipped markings or embedded coded wire tags are stored at the "Mark Center". This database encompasses all wild and hatchery stocks marked by state, federal, tribal and private parties from California through Alaska, including Idaho and British Columbia. It is a model cooperative program, funded primarily by the Anadromous Fisheries Act and the Pacific States Marine Fisheries Commission, with ad hoc contributions by federal and tribal agencies.

The database increases by a half million records each year and is used extensively by fisheries managers. It is a corner stone of information necessary for implementation of the Pacific Salmon Treaty. The Mark Center resides at the PSMFC headquarters and Dr. J. Kenneth Johnson is its administrator (503) 326-7474.

Pacific Coast Fisheries Information Network (PacFIN)

PacFIN is a highly visible and successful cooperative coastwide fishery data collection, analysis, and monitoring system which builds on existing state data programs to meet federal management obligations. The PacFIN computer database contains fishery catch and effort information, primarily for the vast groundfish fisheries, from California to Alaska. These day-to-day fisheries data contribute to the "real time" management of the state and Regional Council fisheries. Funding for the database has been ad hoc, primarily from the regional offices of National Marine Fisheries Service (NMFS). However, funding was provided by Congress for calendar year 1990, assuring continued flow and access of this essential information. The PacFIN database resides on

the NMFS computer in Seattle and is administered by PSMFC employee Will Daspit (206) 526-4072.

PIT Tag Information System Bonneville Power Administration has funded extensive research and development by NMFS for a Passive Integrated Transponder tag to mark salmon and steelhead in the Columbia River Basin. PSMFC has developed and administers a centralized database for all of the information generated by this program. During the March-September fish runs, interrogation sites at five dams collect information and electronically transfer it daily to the PIT Tag Center for processing. The database currently resides on the NMFS computer in Seattle and PSMFC employee Will Daspit administers it. In 1990 the system will relocate to the Commission's headquarters office for redesign and administration by Judith E. Cress (503) 326-4957.

Marine Recreational Fisheries Statistics Survey The National Marine Fisheries Service collects information year-round from marine anglers in Washington, Oregon and California. With funds provided from a Wallop/Breaux Grant, PSMFC administers a coastwide database of this angler information. The database resides on microcomputers at the Commission and in state fisheries offices. Russell Porter of PSMFC is the coordinator (503) 326-7025.

FISHERY MANAGEMENT PLANS

PSMFC received grants from the Interjurisdictional Fisheries Act (IFA) and the Wallop/Breaux Administrative Fund (W/B) to prepare multijurisdictional FMP's.

The final draft of the Thresher Shark FMP for Washington/Oregon/California was completed by the Planning Committee for consideration by state management agencies and PSMFC commissioners. Efforts by the Commission over the past two years, including an onboard vessel observer program for the Washington/Oregon experimental gillnet fishery, lead to an FMP for cooperative management along the coast. NMFS is now preparing a Section Seven Consultation in compliance with the Endangered Species Act to accompany the FMP. The completed FMP will be available prior to the 1990 Annual Meeting. This project was funded by an IFA grant.

Another FMP developed with IFA funds is the **Southeast Alaska Rockfish Fishery**. Efforts in 1989 focused on workshops in coastal communities to consider alternative forms of limited access that might help assure a high valued, fresh fish operation throughout most of the year. The FMP will be finished in 1990.

Using W/B funds a **White Sturgeon Planning Committee** was formed to begin work on an interstate FMP. The Committee consists of members from the state agencies of Washington, California, Idaho, Oregon, the U.S.F.W.S., NMFS and interested Indian Tribes. A draft for agency review is due in late December, 1990.

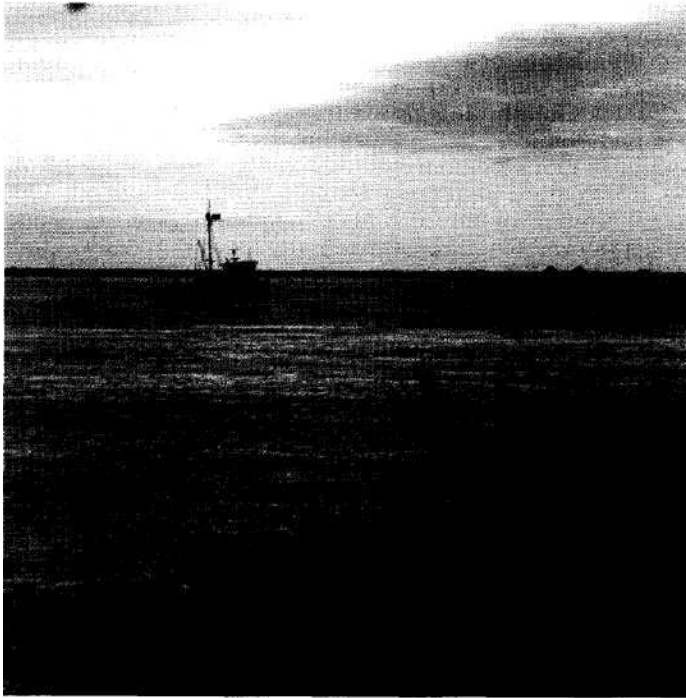
INDUSTRY SUPPORT

To further its goal of developing Pacific coast fishery resources, PSMFC pursued several projects in 1989 in support of the fishing industry (both commercial and recreational). These projects are indicative of PSMFC's role of addressing issues typically not undertaken by its member state agencies or the Regional Councils.

Marine Debris PSMFC's West Coast Marine Debris Recovery Project in 1989 was funded by a Saltonstall-Kennedy grant (\$161,000) to address the new MARPOL Annex V prohibitions of at-sea disposal of plastics and other wastes. Ms. Fran Recht was project leader and applied the lessons she learned in the highly successful Newport, Oregon pilot program for providing adequate port refuse disposal facilities.

The primary goals of the Project, targeted at the ports and fishing industry throughout California, Oregon, Washington and Alaska were to:

- * help ports understand and comply with their new obligations and establish effective refuse collection systems



PSMFC pursues many contract programs to provide support to both the Recreational and Commercial fishing industries. (PSMFC Photo).

- *help fishing groups understand and comply with the new regulations
- *encourage communication between ports to help assure some consistency between facilities and information sharing to resolve refuse handling problems
- *encourage fishermen and fisheries groups to work cooperatively with their ports to assure refuse system convenience
- *encourage the recycling and reuse of fishing gear and other debris items

The Project's work was accomplished by:

- *working directly with 8 target ports, two in each west coast state, to assist the ports in identifying ways to improve their refuse handling services and to encourage fishermen's awareness
- *dispersing marine debris information (regarding laws, suggestions for compliance) and resources (brochures, posters, articles, photographs) to ports, fishing groups, industry publications, Sea Grant Marine Advisors, and the Coast Guard Marine Safety Offices through mailings, meetings, visits, and displays at fishing expositions
- *giving talks to harbormaster and fishing groups
- *keeping other marine debris projects updated on project accomplishments and resources developed or discovered
- *providing information and material to encourage or assist in the establishment of new marine debris projects
- *working directly with some Washington ports and recyclers to establish a net collection and recycling system
- *giving talks or providing materials and displays to schools and marine educational facilities.

Vessel Safety PSMFC was funded by the National Research Council to prepare an assessment on west coast fishing vessel safety. The project ① identifies regional commercial fishing vessel safety problems; ② identifies and describes the number and characteristics of the commercial fishing fleets and crews operating upon regional waters; and ③ brings commercial fishing industry and regional perspec-



PSMFC's Marine Debris Project was designed to assist fishermen by working with fishing ports to provide accessible and adequate trash collection facilities for use by fishing vessels. (Port of Newport Project Photo).

tives to bear upon commercial fishing vessel safety issues. Dr. Fred Van Noy, Ms. Ginney Goblirsch and Mr. Robert Jacobson ran this project.

High Seas Driftnets PSMFC supports a ban of high seas driftnets (nets longer than one and one-half miles in length fished beyond any nation's 200 mile EEZ).

PSMFC recognizes that U.S. domestic nearshore gillnets are highly regulated and are a controllable, effective means of harvesting fish. On the other hand, Japan, Taiwan and Korea are abusing the living marine resources of the Pacific with their unregulated, indiscriminate harvesting on the high seas.

The PSMFC Fisheries Coordinator was quite active in the campaign to resolve this issue; working closely with news media, fishing organizations, Capitol Hill and environmental groups.

CONTRACT SERVICES

Contract Services to the States PSMFC provides contract services for numerous State fishery data projects which are funded by the Federal Government. This National Marine Fisheries Service (NMFS) is the principal Federal agency involved, and NMFS uses PSMFC as the primary contractor because of the Commission's proven fiscal ability and low overhead rate (14%). PSMFC is able to hire technical personnel to work alongside existing State employees and thereby enhance the State data programs as necessary to support regional fishery management. The low PSMFC overhead rate allows the money to go further toward the purpose for which it is intended. These are primary advantages of PSMFC.

In 1989 PSMFC administered over \$3,000,000 for its member states, including over 1500 man months of personnel. These state assistance projects are critical elements of the information system required for state and federal management of important fishery resources.

Contract Services to other Organizations In addition to the above, PSMFC provides contract services for other entities. In a sense, the Commission serves as a "parent" organization for these entities, which do not have the necessary fiscal expertise and staff to handle payroll, procurement, accounting, travel expense and related functions. PSMFC retains no programmatic or policy control over the project; it provides administrative support only. These projects totaled \$2,400,000 in 1989. The entities involved were:

Columbia Basin Fish and Wildlife Authority The Columbia Basin Fish and Wildlife Authority was created to coordi-



PSMFC contract services include sampling recreational and commercial fishery landings in conjunction with our member state fishery agencies (PSMFC Photo).

nate the activities of the member agencies in the Columbia River area. State, federal, tribal and member agencies contributed funds to PSMFC for employment of an Executive Staff and for operations.

Fish Passage Center With funds from BPA, PSMFC hires most of the staff of the Fish Passage Center, which is charged with monitoring and enhancing anadromous fish passage in the Columbia River Basin.

Enhancement Planning Teams With funds from the Northwest Power Planning Council and BPA, the Commission administers several teams of state, federal, tribal and private scientists/managers to prepare blueprints for anadromous fisheries production in the Columbia Basin.

EXTERNAL AFFAIRS

Commission staff serve on several councils and committees that affect regional and national policies for fisheries research and management.

Regional Councils The Magnuson Act stipulates that the Executive Director of PSMFC shall serve as a non-voting member of the Pacific and North Pacific Fishery Management Councils. PSMFC receives funding annually from each Council to support participation on these forums. Dr. David L. Hanson, as the Commission's Fishery Coordinator, sits on both councils. Dr. Hanson focuses on legislative, budget and groundfish issues and devotes substantial time to this important process.

MAFAC The Executive Director of the Pacific, Atlantic and Gulf State Marine Fisheries Commissions serve as consultants to the Marine Fisheries Advisory Committee. MAFAC meets 3-4 times per year to provide advice to the Department of Commerce and its Assistant Administrator for Fisheries on all major fishery policy issues in the Nation.

Canada-U.S. Groundfish The Executive Director serves as the U.S. member on the Canada-United States Groundfish Committee. Established in 1959, the Committee meets annually to discuss and recommend research and management activities of mutual concern for transboundary species of groundfish. A large Technical Subcommittee of state, federal and Canadian scientists advises the Committee. The group has been an effective, largely informal instrument for resolving fishery issues and has prevented potentially serious bilateral fishery problems requiring more formal negotiations.

AFS/IAFWA The Executive Director and Mr. Russell G. Porter, Assistant Director, serve on several committees of the American Fisheries Society and the International Association of Fish and Wildlife Agencies. The Commission provides input on marine fisheries issues, federal appropriations, and fisheries habitat.

F.I.S.H. The Executive Director is a member of the newly formed association of commercial harvesters, anglers and environmentalists who are committed to protecting the marine environment for fishery resources. Fishermen Involved in Saving Habitat is particularly concerned with preserving and restoring marine associated wetlands and in protecting water quality for marine, estuarine and anadromous fishes.

1989 PUBLICATIONS

1. "*The 1989 Mark List*" containing a record of all groups of salmonids that have been fin-marked prior to their release.
2. "*Releases of Coded-Wire Tagged Salmon and Steelhead from Pacific Coast Streams Through 1988.*" This is the sixteenth in a series of reports tabulating all the various codes used by federal, state, Indian and private agencies for salmonid coded-wire tags in the Pacific Coast States. The report enumerates all previously used codes, necessary corrections and all the new codes used in 1988.
3. "*The 41st Annual Report of the Pacific Marine Fisheries Commission*" for the year 1988 was published in August, 1989.

Market Facts and States:	
Marine Recreational Survey	176,718
Oregon Dept. of Fish & Wildlife	
Pacific Salmon Commission Data	26,830
Pacific & North Pacific Councils' Support for PSMFC's Participation	34,646
U.S. Fish & Wildlife Service-Marine Sport-fisheries Information	63,592
Pacific Northwest Power Planning Council—Columbia River System & Subbasin Planning	1,390,291
NMFS, USFWS, 5 State Fisheries Agencies & 13 Indian Tribes: Columbia Basin Fish & Wildlife Authority Support	40,254
Miscellaneous	34,821
Total Expenditures	<u>6,092,403</u>

Cash Balance	
September 30, 1989	\$ 125,650
Add: Receivables from External Contracts	\$ 269,255
PSMFC's Current Assets @ September 30, 1989	<u>\$ 394,905</u>

Submitted by Gerald Fisher, Treasurer

1989 AUDIT REPORT

CAHALL, NOLAN & CO.
 Certified Public Accountants
 1815 SWMarlow, Suite 207
 Portland, Oregon 97225

To Board of Commissioners
 Pacific States Marine Fisheries Commission
 Portland, Oregon

We have audited the accompanying financial statements of Pacific States Marine Fisheries Commission as of June 30, 1989, and for the year then ended. These financial statements are the responsibility of Pacific States Marine Fisheries Commission's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards required that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates

made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

The Pacific States Marine Fisheries Commission prepares its financial statements on the basis of cash receipts and disbursements, with the exception of the accrual of expenses in the General Fund, which is a comprehensive basis of accounting other than generally accepted accounting principles.

In our opinion, the financial statements referred to in the first paragraph present fairly, in all material respects, the assets and liabilities arising from the cash transactions of the Pacific States Marine Fisheries Commission as of June 30, 1989, and the revenues it received and expenditures it paid for the year.

Cahall, Nolan & Co.
 October 10, 1989
 Portland, Oregon

BALANCE SHEET JUNE 30, 1989

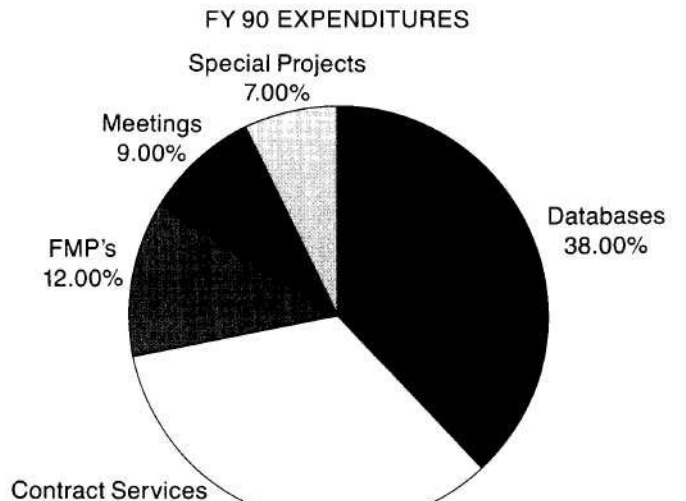
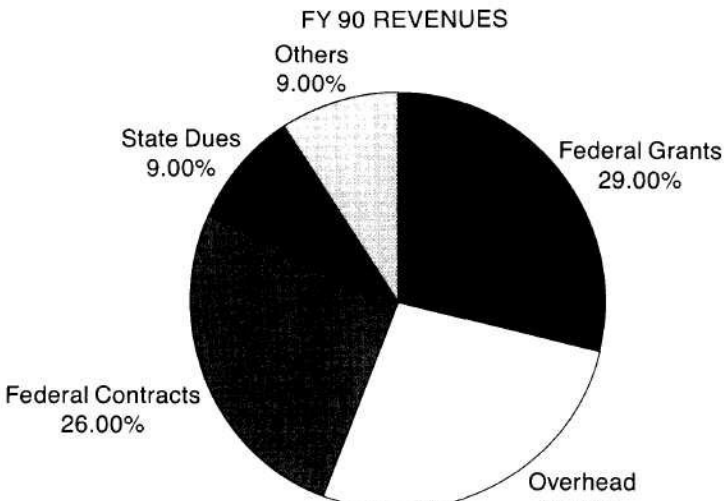
	Assets		
	General Fund	Property Fund	Unemployment Fund
CURRENT ASSETS			
Cash on hand and in banks	\$220,743		\$ 8,253
Receivables:			
Due from National Oceanic and Atmospheric Administration			
—Contract #50-ABNF8-00099	163		
—Contract #88-ABH-00038	1,352		
—Contract #89-ABH-00038	3,817		
—Contract #89-ABH-00032	16,309		
—Contract #88-ABD-00100	7,800		
—Contract #83-ABD-00017	2,268		
—Contract #88-ABH-00053	6,612		
—Contract #89AA-H-SK003	6,574		
Due from Washington Dept. of Fisheries:			
—Electrophoretic Sampling		3,955	
—Salmon Electrophoretic Sampling	4,511		
Due from Oregon Dept. of Fish & Wildlife:			
—Pacific Salmon Treaty	9,564		
Due from California Dept. of Fish & Game:			
—Gillnet Study	39,526		
—Age Composition Study	1,009		
—Salmon Protection	3,252		
—Drift Long Line Study	3,174		
Due from Northwest Power Planning Council:			
—System Planning	28,991		
—Subbasins Above Bonneville	8,053		

Due from Bonneville Power Administration:			
–Implementation Planning		15,086	
–Smolt Monitoring	624		
–Water Budget Manager	4,395		
–Coded Wire Tag	13,543		
–NWPPC Tech Group	4,567		
–Fish Passage Center	13,216		
Due from U.S. Fish & Wildlife Service:			
–Interstate Fishery Mgmt	19,023		
Due from Market Facts, Inc.:			
–Marine Recreational Survey	93,050		
Due from Department of Interior, Minerals Management Service:			
–Fisheries Data Base	2,019		
Due from PFMC/NPFMC:			
–Regional Council Support	13,034		
Due from Federal & State Agencies:			
–RMPC Enhancements	5,431		
Prepayments	70		
FIXED ASSETS			
Investment in furniture & equipment		<u>\$781,109</u>	
Total assets		<u>\$551,731</u>	<u>\$781,109</u> <u>\$ 8,253</u>

LIABILITIES			
Observers' accounts payable	\$ 28,431		
Advances from Northwest Power Planning Council	146,663		
Accrued Liabilities	11,948		\$ 102
Reserve for accrued leave	24,308		
Withholding taxes payable	301		
Unexpended grant funds:			
National Oceanic & Atmospheric Administration:			
–Contract #88-ABH-00004	20,379		
–Contract #88-ABH-00029	2,556		
–Contract #88-ABD-00104	1,579		
California Dept. of Fish & Game			
–Sportfishing Sampling Studies	21,195		
–Artificial Reef Study	11,678		
–Sea Urchin Study	2,484		
–Drift Long Line Fishery Study	5,307		
–Marine Resources	2,626		
Bonneville Power Administration			
–Coordinated Information System	2,281		
NOAA/BPA/Other Agencies			
–Fish Passage Center	5,558		
Total liabilities	287,294		102
FUND BALANCES	264,437	781,109	8,151
Total liabilities & Fund Balances	<u>\$551,731</u>	<u>\$781,109</u>	<u>\$8,253</u>

Submitted by Gerald Fisher, Treasurer

BUDGET REPORTS



EXPENDITURES	Total Expenditures for Fiscal Year Ending 1989-90	Total Expenditures 1989-90 Fiscal Year	Proposed Budget for 1990-91 Fiscal Year
Salaries & Wages	\$440,564	\$493,669	\$ 519,413
Fringe Benefits	113,448	145,544	172,963
General Operation & Maintenance	299,952	343,060	302,044
Annual Meeting	35,025	39,325	57,615
Pre-Mtg In-State	5,440	5,832	6,000
Issue Committee Meetings	3,767	6,183	5,000
Publications	19,302	0	6,500
Cooperative Research			
Otolish Reader-25% Match	14,543	14,500	7,500
Mark Center-33% Match	35,726	34,944	33,500
Special Projects	0	1,776	0
RMPC Enhancement	0	8,401	0
Miscellaneous	6,394	11,499	5,000
Capital Outlay	17,327	41,438	15,000
TOTAL	\$991,528	\$1,146,171	\$1,130,535

REVENUE	Estimated		
	Revenue for Fiscal Year Ending	Revenue for 1989-90 Fiscal Year	Revenue 1990-91 Fiscal Year
Interest Income	\$ 13,813	\$ 13,933	\$ 13,000
Ext. Contracts	618,241	713,065	641,218
Indirect Costs	261,173	313,173	370,317
State Contributions			
Alaska	31,000	32,100	32,100
California	25,200	24,000	24,000
Idaho	5,300	5,300	5,300
Oregon	22,000	21,900	21,900
Washington	22,500	22,700	22,700
State Contributions Subtotal	\$106,000	\$106,000	\$ 106,000
Total Revenue	\$999,227	\$1,146,171	\$1,130,535
Balance Avail/Previous	0	0	0
Total Available	\$999,227	\$1,146,171	\$1,130,535
Less Expenditures	991,528	1,146,171	1,130,535
Revolving Fund Set Aside	\$ 7,699	\$ 0	\$ 0
Balance-Carried Forward Next Year	\$ 0	\$ 0	\$ 0

Estimated External Contract Expenditures
For The Period July 1, 1989 - June 30, 1990

	Expenditures (Direct Costs)	Indirect CostChgs	Total
Admin. Support of SFFMP	\$ 15,750	\$ 2,205	\$ 17,955
Albacore Logbook & Port Sampling	47,368	6,632	54,000
Council Support	27,479	2,521	30,000
Regional Mark Processing Center	138,063	18,187	156,250
W/C Data Collection & Analysis	693,883	39,146	733,029
Columbia Basin Fish & Wildlife	56,921	6,258	63,179
BPA-Smolt Coordination (FPC)	948,542	70,850	1,019,392
Fish Marking	20,699	2,898	23,597
BPA-Columbia River Coded Wire Tag	672,600	36,419	709,019
BPA-TechnicalWork Group Coord.	172,077	12,471	184,548
NWPPC-Columbia Basin System	374,086	10,372	384,458
No.CA-Sportfish	70,029	9,825	79,854
CA-Salmon Protection & Enhancement	13,436	1,881	15,317
Sportfish Assmt Project	13,157	1,843	15,000
CA-Bay Estuary & Nearshore Ecosystem	40,265	5,637	45,902
CA-Sportfish Sampling Studies	228,509	31,991	260,500
Cooperative Interstate Fishery Mgmt.	77,430	10,840	88,270
Marine Rec. Survey	287,538	40,255	327,793
CA-Gill Net Alternative Study	89,160	12,482	101,642
CA-Sardine Resource Research	25,579	3,581	29,160
Pittag Data Base	37,214	5,210	42,424
CA-Sea Urchin Fishery	21,124	2,957	24,081
CA-Age Composition Study			
CA-Artificial Reef Study	48,929	6,430	55,359
CA-Marine Resource Inventory	52,141	7,300	59,441
OCS Fishery Resource Data	127,014	3,414	130,428
West Coast Marine Debris Program	88,088	12,325	100,413
Interjurisdictional Fish. Prog.	108,501	9,846	118,347
Coordinated Info System	325,654	5,552	331,206
CA-Ocean Salmon Analysis	21,500	3,500	25,000
Implementation Planning Process	139,751	19,005	158,756
Scientific Review Group Support	202,763	23,387	231,150
TOTAL	\$5,185,250	\$430,220	\$5,615,470

Submitted by Pam Kahut, Fiscal Manager

PACIFIC COAST FISHERY REVIEW REPORTS

ALBACORE FISHERY IN 1989

The 1989 commercial albacore fishery was primarily centered north of Vancouver Island, Canada and produced a total catch of only 4,761,000 pounds. This is less than half of last year's landing total and only 14% of the 25-year average.

California

The 1989 albacore fishery began slowly in July with catches at Rosa Bank and Geronimo Island, Baja California. This was followed by a few scattered catches 100 to 400 miles off the central California coast. The average fish weight of these catches was 10 to 12 pounds. Concurrently, multi-day sport boats working 150 to 250 miles south of San Diego were getting 125 to 250 fish per boat per day. These catches consisted of 6 to 8 pound fish. The presence of these "peanuts" suggested albacore from last year over-wintered in the eastern Pacific instead of returning west to spawn. This has historically meant that there would be a good sport fishing season.

As July came to an end, the Western Fishboat Owners Association, Pan Pacific, and Starkist agreed on the 1989 price for albacore. Fish 9 pounds and under would bring \$1,000 per short ton while fish over 9 pounds would bring \$1,500 per ton. In 1988, fishermen received \$200 more per ton for both ranges. The total landings for July were 18,044 pounds.

In August, sport boats out of San Diego and Los Angeles counties were having a field day. The albacore had moved within 90 to 150 miles south of Point Loma, and scores of 250 fish per boat were reported. While there appeared to be large schools of small albacore (6 to 11 pounds) available, most commercial boats went to fish off Oregon and Washington, as they had for the past two seasons. Jig and bait boats traveling northward had average scores of 67 fish per day. The majority of these fish were found 60 to 150 miles west of Cape Mendocino to Crescent City.

In mid-August, the shipping fee charged by the buying stations was dropped. Fishermen landing in Crescent City, Eureka, and Fort Bragg had been refusing to sell to the buying stations because the shipping fee reduced the price for albacore by \$200 per ton. Dockside sales to the public netted \$1.25 per pound. Total landings for the month were 402,425 pounds.

September saw a slight increase in fishing activity along the California coast though weather conditions began to deteriorate. Vessels headed south from Washington reported scattered fishing off Pt. Arena and Cape Mendocino, but weather conditions hampered fishing efforts. Off Morro Bay, at Davidson Seamount and the 1908 spot, local jig/drift gill net boats had fish weight averages of 12 to 15 pounds, with a few 40 pound fish landed as well. The average number offish caught per day west of Morro Bay was five. By month's end, most vessels had returned to their home ports and off-loaded. Ninety-six percent of the albacore landed in September were caught off Vancouver Island, Canada and off Washington. Total landings for September equalled 1,107,435 pounds.

The commercial season had fizzled by mid-October due to the weather and lack of interest on the part of fishermen. A few jib boats in San Diego and Long Beach attempted to fish the albacore south of San Diego, but with little success. Sport boats reported only one-half to five albacore per angler, but were bolstered by good catches of dorado and bluefin tuna. Only 290,657 pounds of albacore were landed commercially in October.

California experienced its worst year of albacore landings on record. In 1989, only 1.8 million pounds of albacore were landed; this is only 10% of the 25-year average of 17.6

million pounds and about two-thirds of the total pounds landed in 1988.

Oregon

The first catches off Oregon occurred the third week of July when 100 fish were reported caught about 100 miles off Coos Bay and also off Heceta Bank. Scattered catches of up to 20 fish per boat were taken from the Dumping Grounds, 100 miles off the Columbia River. Catches there increased to about 80 fish per day by July 25 and then decreased as the month ended and boats scattered to get back on the fish. Landings in Oregon in July totalled 41,164 pounds.

During August catches were low and spotty as fish were scattered from 50 miles off shore Westward with no concentrations of fish reported except about 400 miles off shore at 45° N lat. and 132° W long, with catches averaging about 100 fish per boat per day during the first two weeks of the month. The center of fishing success moved north to off northern Vancouver Island as the month progressed and remained poor and spotty off Oregon. Many of the fish were in the 20 to 30 pound range off Canada and only 12 to 15 pounds off Oregon. August landings were 408,839 pounds in Oregon.

Fishing in September remained spotty in nearshore Oregon waters with most fish being caught about 400 to 500 miles off central Oregon with averages around 200 fish per boat per day of 9 to 12 pound fish. Good catches of 20 to 30 pound fish continued off Vancouver Island until about mid-month. By the end of September, catches in the Vancouver Island area were averaging 50 to 80 fish per boat per day of 20 pound fish. Vessels left the offshore Oregon area which was only producing catches of 6 to 9 pound fish. September landings amounted to 449,678 pounds.

October saw little effort off Oregon as the season drew to a close. October landings totalled 142,890 pounds, much of which was caught in September. November produced only 7,343 pounds for a 1989 Oregon season total of 1,049,914 pounds, less than one-tenth of the 25-year average.

Washington

No albacore were delivered to Washington ports until the last week of July. Vessels which had fished the area 300 miles offshore of California accounted for most of the albacore landed in July, the remainder being made up from catches approximately 100 miles off Oregon coast from Coos Bay, Oregon to the Dumping Grounds off the Columbia River. Total July landings were 74,773 pounds.

Effort off the Washington coast during August was rather low and scattered. A few sport boats made trips approximately 60 to 80 miles west of Westport, Washington for catches averaging about two fish per angler. This success was short-lived; total season sport effort was only an estimated 230 angler trips with a resultant catch of 500 albacore. Commercial fishing effort began moving northward to the area off the northern tip of Vancouver Island, where catches were reported of 50 to 300 albacore per boat per day of fish weighing between 18 and 25 pounds. Fish from Canadian waters accounted for 31% of the 362,868 pounds of albacore delivered to Washington ports in August.

Fishing success was low and effort scattered off the Washington coast during September. Most successful fishing was north of Vancouver Island where vessels continued to report fair catches of fish ranging from 18 to 30 pounds. Deteriorating weather during the latter half of the month reduced fishing effort. September albacore deliveries in Washington totalled 1,069,414. Ninety-one percent of these landings were reported from Canadian catch areas.

Increasingly vigorous autumn weather during late September and early October effectively brought an end to Washington's albacore season. Almost all late season effort was in the area off the northern tip of Vancouver Island. Over 95% of the albacore landed in Washington during October were reported from Canadian waters. Landing totals for the month were 384,604 pounds.

The center of fishing success for the 1989 albacore season was obviously centered north of Washington. Approximately 77% of Washington's total albacore landings for 1989 were reported as caught in Canadian waters. The total catch of 1,891,659 pounds is less than half of last year's albacore catch and approximately 41% of the 25-year average.

Compiled by Brian Culver—Washington Department of Fisheries

Other Contributors

Larry Hreha—Oregon Department of Fish & Wildlife
 Mary Larson—California Department of Fish & Game

Table 1. Albacore landings in California, Oregon and Washington (in thousands of pounds)

Year	California	Oregon	Washington	Total
1960	35,113	4,563	526	40,202
61	29,123	3,250	456	32,829
62	36,622	8,949	365	45,936
63	48,860	11,400	527	60,787
64	42,551	4,452	1,055	48,058
65	23,218	12,122	2,048	37,388
66	18,189	18,041	1,101	37,331
67	17,858	29,243	1,240	48,341
68	15,077	37,752	3,050	55,879
69	14,722	29,828	1,240	45,790
1970	29,932	21,782	4,390	56,104
71	36,117	8,420	5,250	49,787
72	21,001	23,056	16,238	60,295
73	8,641	16,350	14,446	39,437
74	11,806	25,225	17,983	55,014
75	15,413	17,166	16,297	48,876
76	27,754	5,934	7,202	40,890
77	15,905	4,420	4,948	25,273
78	21,549	11,285	5,008	37,842
79	8,508	3,107	830	12,445
1980	11,958	3,505	1,299	16,762
81	20,584	7,727	1,928	30,239
82	9,439	1,913	572	11,924
83	16,732	3,410	1,168	21,310
84	26,520	1,631	142	28,293
85	14,410	1,525	377	16,312
86	7,018	2,461	1,862	11,341
87	3,090	2,279	1,156	6,524
88	2,600	3,952	4,074	10,626
25-year average	17,624	11,863	4,596	34,083
1989*	1,819	1,050	1,892	4,761

*Preliminary

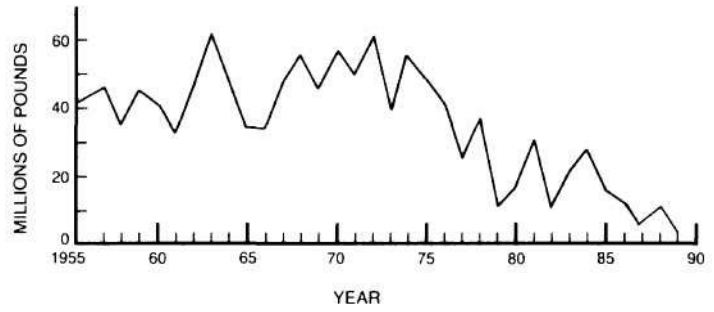


Figure 1. Combined annual landings of albacore in California, Oregon and Washington, 1956-1989.

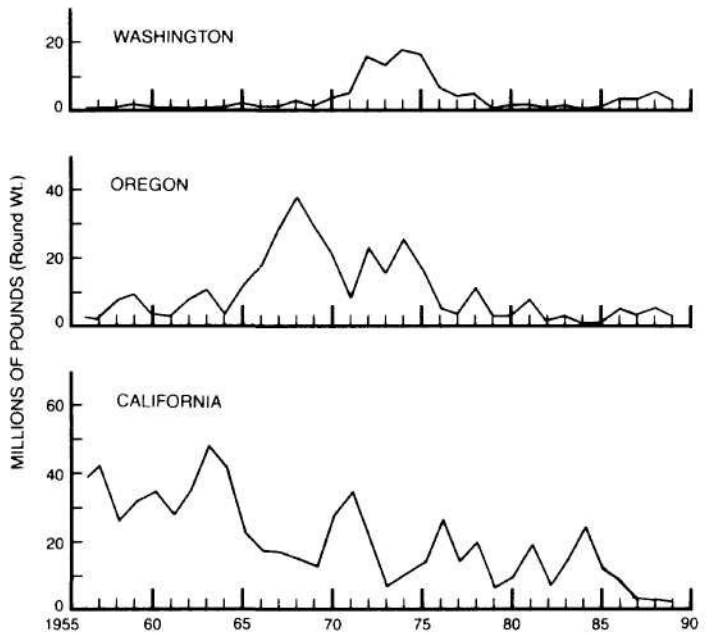


Figure 2. Annual albacore landings by State, 1956-1989.

PACIFIC HALIBUT FISHERY IN 1989

Commercial Fishery

The 1989 commercial catch for Pacific halibut was 66.6 million pounds dressed weight (40,200 mt round weight), 2.2 million pounds (1,300 mt round weight) over the 64.4 million pound (38,800 mt round weight) catch limit set by the International Pacific Halibut Commission, and 7.7 million pounds (3,500 mt round weight) less than the 1988 catch (Table 1). Preliminary landings and number of fishing days by management area for 1989 are presented in Table 2. The fishery was characterized by a smaller fleet as some vessels contracted to Exxon for oil spill cleanups, poor weather during the May opening and a lower catch rate. The number of fishing days allowed in 1989 was slightly reduced from 1988. Largest abundance and the majority of the catch occurred in the Gulf of Alaska (Alaska Peninsula through Southeast Alaska).

Total exploitable biomass of the halibut population in 1989 decreased by about 6 percent to 232.9 million pounds (140,500 mt) for all areas combined. This decline is consistent with the 5-6 percent decline observed since 1986. Recruitment also dropped significantly in 1989 in all areas and is consistent with cyclical patterns of recruitment that have occurred over the last 50 years. It appears the stock has peaked and is beginning a period of slow decline, most likely at a rate of about 5-15 percent per year over the next several years.

Sport Fishery

Continuing a decade long trend of increasing catch, the recreational harvest of halibut will approach six million pounds in 1989. The recreational fishery harvest is summarized by regulatory area for 1985-1989 in Table 3. The 1989 catch is projected, based on previous fishing history, except in Area 2A where current estimates are provided by the Washington Department of Fisheries and the Oregon Department of Fish and Wildlife. Most of the catch is harvested along the Kenai Peninsula and in Southeast Alaska. The recreational fishery is managed without catch limits except in California, Oregon, and Washington which exceeded catch limits in 1989 in spite of significant restrictions.

Compiled by Calvin L. Blood, International Pacific Halibut Commission.

Table 1. Pacific coast halibut landings of the United States and Canada (millions of pounds).

Year	Canadian	U.S.	Total
70	29.1	25.8	54.9
71	25.5	21.2	46.7
72	22.5	20.4	42.9
73	14.4	17.3	31.7
74	7.4	13.9	21.3
75	11.3	16.3	27.6
76	12.0	15.5	27.5
77	8.8	13.1	21.9
78	8.6	13.4	22.0
79	6.6	15.9	22.5
80	7.6	14.3	21.9
81	5.6	20.1	25.7
82	5.5	23.5	29.0
83	5.4	33.0	38.4
84	8.9	35.9	44.8
85	10.4	45.7	56.7
86	11.0	58.0	69.0
87	12.2	57.3	69.5
88	12.9	61.3	74.3
89*	10.1	56.5	66.6

*Preliminary

Table 2. Preliminary catch summary of the 1989 Pacific Halibut fishery.

Regulatory Area	Catch Limit (millions lbs.)	Fishing Days	Catch (millions lbs.)
2A	0.274	2	.330
*	.152	226	.142
2B	10.0	11	10.110
2C	9.5	3	9.550
3A	31.0	4	33.733
3B	8.5	4.25	7.827
4A	1.8	4	1.025
4B	1.9	14	2.653
4C	0.6	13	.571
4D	0.6	6	.674
4E	0.1	132	0.013
TOTAL	64.426	—	66.628

*152,000 pounds of the Area 2A catch limit was allocated by the United States Government to eleven Northwest Indian treaty tribes (142,000 pounds commercial, 10,000 pounds ceremonial and subsistence).

Table 3. Pacific coast recreational halibut landings by regulatory area, 1985-1989 (millions of pounds, dressed weight).

Area	1985	1986	1987	1988	1989
2A	.18	.26	.42	.26	.33
2B	.53	.56	.81	.51	.56
2C	.68	.73	.78	1.08	1.18
3A	1.23	1.92	2.05	3.34	3.67
4	.01	.01	.02	.02	.02
Total	2.63	3.48	4.08	5.21	5.76

*Preliminary estimates

GROUND FISH FISHERY IN 1989

The preliminary estimate of 1989 groundfish landings by North American fishermen fishing the northeast Pacific Ocean is 2,317,782 metric tons (t), a 7% decrease over 1988 (Table 1). Recreational catch estimates (Table 8) for 1989 are incomplete, most are not available in metric tons and were not included in the above estimate. U.S. fishermen accounted for 94% of the total landings with the remainder landed by Canadian fishermen. U.S. and Canadian joint venture fisheries landed 35% (800,980t) of the total commercial groundfish harvest. Landings in Canadian joint venture fisheries increased 32%, while landings for U.S. joint venture fisheries decreased 49% (Table 1). Trawl fisheries dominated the domestic catch accounting for 95% (1,442,636t) of the aggregate catch followed by longline (4% or 60,763t), "other gear" (0.5% or 6,871t) and pot (0.4% or 6,533t) (Table 2).

U.S. domestic groundfish landings increased 58% over 1988 landings (Table 2). This was a result of increases in Alaska landings of 63% and a 16% increase in Oregon landings. Landings in California and Washington remained similar to 1988 with a 2% increase in California and a 0.3% increase in Washington landings. Canadian landings were down 6% as compared with 1988. U.S. and Canadian landings combined showed a 53% increase over 1988 (Table 2.)

Alaska

Alaska trawl landings were up 66% over 1988 landings (Table 3). This was primarily due to an 80% increase in pollock landings, a 33% increase in Pacific cod landings and a 155% increase in Pacific ocean perch landings (Table 3). Longline landings increased 20% over 1988, due largely to a 170% increase in landings of Pacific cod. Landings with pots and miscellaneous gears declined 78 and 79%, respectively.

Washington

Washington trawl landings in 1989 decreased a modest 2% from 1988 (Table 3). More species showed declines in landings than showed increases. Lingcod showed the greatest percentage increase, and Pacific whiting showed the greatest percentage decrease. Longline landings decreased 17% from 1988 to 1989. There was a 17% decline in longline landed sablefish, presumably as a result of declining quotas.

Oregon

Oregon trawl landings rose 19% over 1988 (Table 3). Most species showed an increase over landings in 1989 with the exceptions of petrale sole, rock sole, Pacific cod and Pacific whiting. The two largest components in the trawl fishery, "other rockfish" and Dover sole increased 22% and 18% respectively. Longline and pot gear landings were down 8% and 29%, respectively, and miscellaneous gears up 10%.

California

California's 1989 commercial groundfish harvest was 40,337 metric tons (mt), an increase of 2%, or 917mt, from the 1988 level (Table 2). Setnet groundfish landings decreased from 8% (3502mt) last year to less than 5% (2231mt) of all 1989 commercial landings. In 1989, bottom and mid-water trawl landings accounted for 85.2% of total landings, followed by line gears (7.0%), setnets (5.5%), and traps (2.3%). Trawl, trap, and longline fleet size and composition did not differ markedly from that of recent years. Rockfish, Dover sole, Pacific whiting, and thornyheads were the principal species harvested in 1989. The domestic shore-based Pacific whiting fishery in California achieved record landings during its 6 month season. This midwater trawl fishery has grown from approximately 3000mt in 1987 to 7300mt in 1989.

Despite trip poundage and frequency limits during the year on deepwater assemblage landings, including thornyheads, a robust Asian market drove thornyhead landings to a record high of 5318mt. Additional regulations and reduced

demand, not resource availability, apparently contributed to a 6% drop in Dover sole landings to 7696mt from the 1988 level.

Federal and state groundfish regulations for the Washington-Oregon-California (WOC) region 1989 fishing year affected the harvest of sablefish, Dover sole, thornyheads, and widow rockfish. Despite a slightly greater OY and favorable fishing conditions, trip limits and bycatch-only restrictions caused a 15% reduction in California's widow rockfish catch to 1566mt. Landings of other rockfishes into California were essentially unchanged from 1988.

Regulation of the coastwide sablefish fishery further increased in complexity during 1989. Actions included maintenance of reserves to accommodate bycatch and nontrawl fisheries, a Tribal set-aside and trip limits directed toward a deepwater assemblage of sablefish, Dover sole, thornyheads, and arrowtooth flounder, whichever was greater. The intent of the last action was to discourage sablefish targeting while allowing sablefish landings from the deepwater assemblage fishery. California trawl sablefish landings of 2618mt accounted for approximately 40% of coastwide landings.

California accounted for 1250mt, or 28% of the 4500mt landed by nontrawl gears.

British Columbia

Canadian landings of groundfish (excluding halibut) were 62,823t in 1989, a decrease of 6% from 1988 levels (Table 2). Trawlers landed 53,797t, 86% of the total catch and 3% below 1988 levels (Table 3). Major species in the trawl landings were other rockfish (31%), Pacific cod (17%), Pacific hake (16%) and Pacific ocean perch (11%). Canadian landings of groundfish caught by gear other than trawl totaled 9,026t. Sablefish traps accounted for 3,481t (99.6% sablefish) and smaller Korean-type traps accounted for 484t (100% hagfish). Longline accounted for 4,119t (43% dogfish, 27% rockfish and 19% sablefish) (Table 5); and troll/handline accounted for 942t (59% rockfish and 40% lingcod).

Compiled by Dave Carlile, Alaska Department of Fish & Game

Contributors:

Frank Henry, California Department of Fish & Game
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 Tom Jagielo, Washington Department of Fisheries
 Kate King, National Marine Fisheries Service
 Kathy Rutherford, Canada Department of Fisheries and Oceans

Table 1. Total commercial groundfish landings in metric tons (t) by region for 1988 and 1989 with percent change.

Region	1988	1989	Percent Change
	t	t	
Alaska	827,833	1,352,536	+ 63
Washington	23,783	23,851	0
Oregon	32,094	37,255	+ 16
California	39,420	40,337	+ 2
Joint Venture	1,430,732	733,862	- 49
Total U.S.	2,377,241	2,187,841	- 8
Canada (B.C.)	66,969	62,823	- 6
Canada Joint Venture	50,798	67,117	+ 32
Total Canada	115,573	129,940	+ 12
Total U.S.-Canada	2,492,814	2,317,781	- 7

Table 2. Domestic groundfish landings in metric tons (t) by region for 1988 and 1989 with percent change.

Region	Trawl		Longline		Pot		Other Gear		Total		Percent Change
	1988	1989	1988	1989	1988	1989	1988	1989	1988	1989	
Alaska	783,147	1,301,817	41,740	50,014	2,668	589	277	117	827,833	1,352,537	+ 63
Washington	18,880	18,450	3,387	2,791	180	172	1,336	2,438	23,783	23,851	0
Oregon	28,719	34,219	1,085	998	1,253	895	1,038	1,143	32,095	37,255	+ 16
California	33,376	34,353	2,450	2,841	753	912	2,841	2,231	39,420	40,337	+ 2
Total U.S.	864,122	1,388,839	48,662	56,644	4,854	2,568	5,492	5,929	923,131	1,453,980	+ 58
Canada (B.C.)	55,651	53,797	6,279	4,119	3,936	3,965	1,103	942	66,969	62,823	- 6
Total U.S. & Canada	919,773	1,442,636	54,941	60,763	8,790	6,533	6,595	6,871	990,100	1,516,803	+ 53

Table 3. Domestic trawl landings in metric tons (t) for food, 1988 & 1989 (preliminary) & 10-year mean (1979-1989) by species and region with the commercial landings for all gears.

Species by group		Alaska	Washington	Oregon	California	Total U.S.	British Columbia	Total U.S. & Canada
Petrale sole	1988	0	451	893	763	2,107	790	2,897
	1989	0	444	862	783	2,089	955	3,044
	% change	0	-2	-3	3	-1	21	5
	10-yr mean	NA	408	909	NA	NA	392	NA
English sole	1988	12	905	576	1,034	2,527	879	3,406
	1989	7	968	692	1,005	2,672	1,038	3,710
	% change	-42	7	20	-3	6	18	9
	10-yr mean	NA	833	709	NA	NA	849	NA
Dover sole	1988	929	2,246	7,551	8,176	18,902	1,281	20,183
	1989	1,427	2,177	8,881	7,696	20,181	2,150	22,331
	% change	54	-3	18	-6	7	68	11
	10-yr mean	NA	1,968	6,098	NA	NA	1,035	NA
Rock sole	1988	23,195	28	5	9	23,237	1,960	25,197
	1989	24,578	37	3	5	24,623	2,075	26,698
	% change	6	32	-40	-44	6	6	6
	10-yr mean	NA	68	8	NA	NA	1,045	NA
Pacific cod	1988	110,637	2,770	1,005	5	114,417	10,997	125,414
	1989	147,284	1,665	774	TR	149,723	9,135	158,858
	% change	33	-40	-23	-	31	-17	27
	10-yr mean	NA	6,685	259	NA	NA	6,846	NA
Lingcod	1988	TR	625	865	496	1,986	2,521	4,507
	1989	TR	930	996	587	2,513	3,049	5,562
	% change	-	49	15	18	27	21	23
	10-yr mean	NA	871	905	NA	NA	2,575	NA
P. ocean perch	1988	2,909	571	728	26	4,234	6,928	11,162
	1989	*7,416	431	1,013	9	1,453	6,051	7,504
	% change	155	-25	39	-65	-66	-13	-33
	10-yr mean	NA	0	786	NA	NA	5,680	NA
Other rockfish	1988	17,352	7,751	13,350	7,467	45,920	18,785	64,705
	1989	21,367	7,365	16,334	7,465	52,531	16,903	69,434
	% change	23	-5	22	0	14	-10	7
	10-yr mean	NA	11,432	14,049	NA	NA	9,693	NA
Sablefish	1988	6,728	676	2,140	2,717	12,261	637	12,898
	1989	5,371	474	2,606	2,618	11,069	617	11,686
	% change	-20	-30	22	-4	-10	-3	-9
	10-yr mean	NA	849	2,125	NA	NA	337	NA
Pacific whiting	1988	0	352	246	6,541	7,139	6,054	13,193
	1989	0	91	89	7,302	7,482	8,793	16,275
	% change	0	-74	-64	12	5	45	23
	10-yr mean	NA	1,918	267	NA	NA	4,984	NA
Walleye pollock	1988	589,291	31	0	0	589,322	1,111	590,433
	1989	1,060,127	26	0	0	1,060,153	436	1,060,589
	% change	80	-16	0	0	80	-61	80
	10-yr mean	NA	460	0	NA	NA	1,448	NA
Total above Species	1988	751,053	16,406	27,359	27,234	822,052	51,943	873,995
	1989	1,260,161	14,608	32,250	27,470	1,334,489	51,202	1,385,691
Total all species	1988	783,147	18,880	28,719	33,375	864,121	55,651	919,772
	1989	1,301,817	18,450	34,219	34,353	1,388,839	53,797	1,442,636
	% change	66	-2	19	3	61	-3	57

includes P.O.R and RO.R group: RO.R only - 310t

Table 4. Catch in metric tons (t) by species group and region of joint venture fisheries in 1989 with 1988 totals.

Species	Bering Sea	Aleutian Islands	Gulf of Alaska	Total Alaska	Calif., Oregon Washington	Total U.S.	Canada (B.C.)	Total
Pacific whiting	NA	NA	NA	NA	203,561	203,561	66,102	269,663
Pollock	277,186	10,569	0	287,755	NA	287,755	762	288,517
Yellowfin sole	151,111	—	0	151,111	—	151,111	0	151,111
Other flatfish	41,904	—	0	41,904	8	41,912	0	41,912
Pacific cod	44,419	4	0	44,423	NA	44,423	0	44,423
Atka mackerel	56	TR	0	56	—	56	0	56
P. ocean perch	—	TR	—	TR	0	0	7	7
Other rockfish	50	TR	0	50	170	220	246	466
Sablefish	3	TR	0	3	2	5	0	5
Other fish	4,802	2	0	4,804	16	4,820	0	4,820
Total 1988	1,234,556	66,509	3,764	1,304,829	135,980	1,430,732	50,798	1,481,530
Total 1989	519,531	10,575	0	530,106	203,757	733,863	67,117	800,980
% Change	-58	-84	-100	-59	50	-49	32	-46

Table 5. Longline landings in metric tons (t) by major species and region in 1988 and 1989.

Region	Sablefish		Lingcod		Rockfish		Pacific Cod		Other		Total	
	1988	1989	1988	1989	1988	1989	1988	1989	1988	1989	1988	1989
Alaska	30,095	28,961	173	181	1,976	1,895	6,502	17,581	2,994	1,396	41,740	50,014
Washington	2,159	1,793	17	23	237	150	20	16	954	808	3,387	2,790
Oregon	665	424	25	28	141	136	1	—	253	410	1,085	998
California	397	352	184	328	1,786	1,990	0	0	28	74	2,395	2,744
Total U.S.	33,316	31,530	399	560	4,140	4,171	6,523	17,597	4,229	2,688	48,607	56,546
Canada (B.C.)	1,274	783	467	503	1,005	1,057	13	9	3,520	1,767	6,279	4,119
Total U.S. & Canada	34,590	32,313	866	1,063	5,145	5,228	6,536	17,606	7,749	4,455	54,886	60,665

Table 6. Pot landings in metric tons (t) by major species and region in 1988 and 1989.

Region	Sablefish		Lingcod		Rockfish		Other		Total	
	1988	1989	1988	1989	1988	1989	1988	1989	1988	1989
Alaska	872	13	TR	TR	10	0	1,786	576	2,668	589
Washington	180	163	0	0	0	0	0	9	180	172
Oregon	1,231	894	2	TR	11	1	9	410	1,253	1,305
California	608	846	3	4	0	23	1	9	648	882
Total U.S.	2,893	1,916	5	4	98	24	1,860	1,004	4,856	2,948
Canada (B.C.)	3,857	3,468	—	4	13	9	66	484	3,936	3,965
Total U.S. & Canada	6,750	5,384	5	8	111	33	1,926	1,488	8,792	6,913

Table 7. Landings in metric tons (t) from miscellaneous gears by major species and region in 1988 and 1989.

Region	Sablefish		Lingcod		Rockfish		Pacific Cod		Other		Total	
	1988	1989	1988	1989	1988	1989	1988	1989	1988	1989	1988	1989
Alaska	0	TR	125	89	85	26	58	2	9	TR	277	117
Washington	5	6	157	218	823	753	30	9	321	1,452	1,336	2,438
Oregon	32	23	107	151	840	925	13	6	46	38	1,038	1,143
California	60	52	193	189	2,384	1,777	0	0	186	208	2,823	2,226
Total U.S.	373	81	674	647	5,978	3,481	101	17	562	1,698	5,474	5,924
Canada (B.C.)	3	—	468	376	596	552	4	2	32	12	1,103	942
Total U.S. & Canada	376	81	1,142	1,023	6,574	4,033	105	19	594	1,710	6,577	6,866

Table 8. Estimated recreational landings in metric tons (t) or individuals by major species and region in 1988 and 1989.

Region	Rockfish		Lingcod		Flatfish		Pacific Cod		Other		Total	
	1988	1989	1988	1989	1988	1989	1988	1989	1988	1989	1988	1989
Alaska	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Washington*	487	—	59	—	6	—	3	—	8	—	563	—
Oregon*	300	394	61	79	45	67	0	0	16	23	422	563
California	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total U.S.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Canada (B.C.)**	194,735	199,898	65,929	52,329	—	—	—	—	75,159	60,837	331,709	—
Total U.S. & Canada	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

*Catch expressed in metric tons. **Catch expressed in number of individuals.

DUNGENESS CRAB FISHERY IN 1988-1989

Total Dungeness crab landings for the Pacific coast were 53.0 million pounds, about 5.1 million pounds more than 1987-88 and 15.8 million pounds above the long-term average. Production from coastal Washington, Oregon and northern California was 42.3 million pounds, 11.8 million pounds above last season and 15.8 million pounds more than the long-term average. Crab condition was poor off Washington and northern Oregon and exvessel price for the area at \$1.00. From Newport south the price was \$1.25.

ALASKA

Landings were 7.6 million pounds, 2.5 million pounds below 1988. Production from the five main areas was: Kodiak, 3.1; Southeast, 1.9; Yakutat, 1.7; Prince William Sound, 0.6; and Cook Inlet, 0.2 million pounds, respectively. Kodiak showed an increase in catch while most other areas showed decreases.

BRITISH COLUMBIA

Incomplete records show that 3.1 million pounds were landed, an increase of 16% over 1988. Catches were slightly improved in all areas.

WASHINGTON

The coastal fishery produced 21.9 million pounds, an all-time record high and surpassed the previous high of 18.4 million pounds set in 1968-69. Crab condition was poor until late December and most buyers put boats on limits or stopped buying for a time. Landings for December, January and February were 3.9, 6.2 and 4.6 million pounds, respectively. An influx of boats from California and Oregon increased fleet size to a record 2.0 boats. The exvessel price opened at \$1.00 and gradually increased to \$1.30. The Puget Sound fishery produced 2.0 million pounds about 2% above the average of the past 10 seasons.

OREGON

Landings were 11.2 million pounds up from 8.7 million pounds in 1987-88 and 2.6 million pounds above the long-term average of 8.6 million pounds. Crab condition was poor off northern Oregon early in the season and greatly affected the exvessel price. The price opened at \$1.25 for all ports except Astoria and ranged from \$0.50 to \$2.00 with an average price of \$1.15 for most crab. There were 342 boats in the fleet.

CALIFORNIA

Landings were 9.2 million pounds up from 8.7 million pounds last year. Landings for the northern parts of Crescent City, Trinidad, Eureka and Fort Bragg were 5.4, 0.9, 1.3 and 0.2 million pounds, respectively. Production in Crescent City was nearly double that of 1987-88. There were 318 boats in the fleet and made 5,436 trips. Exvessel price was opened at \$1.25.

The San Francisco/Bodega Bay fishery landed 1.4 million pounds, down nearly 50% from last season. There were 215 boats in the fleet.

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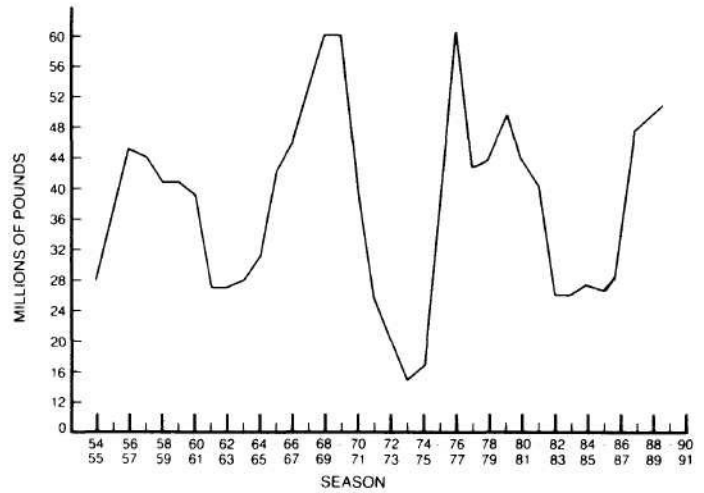


Figure 1. Pacific coast Dungeness crab landings by season, including British Columbia, 1954-1989.

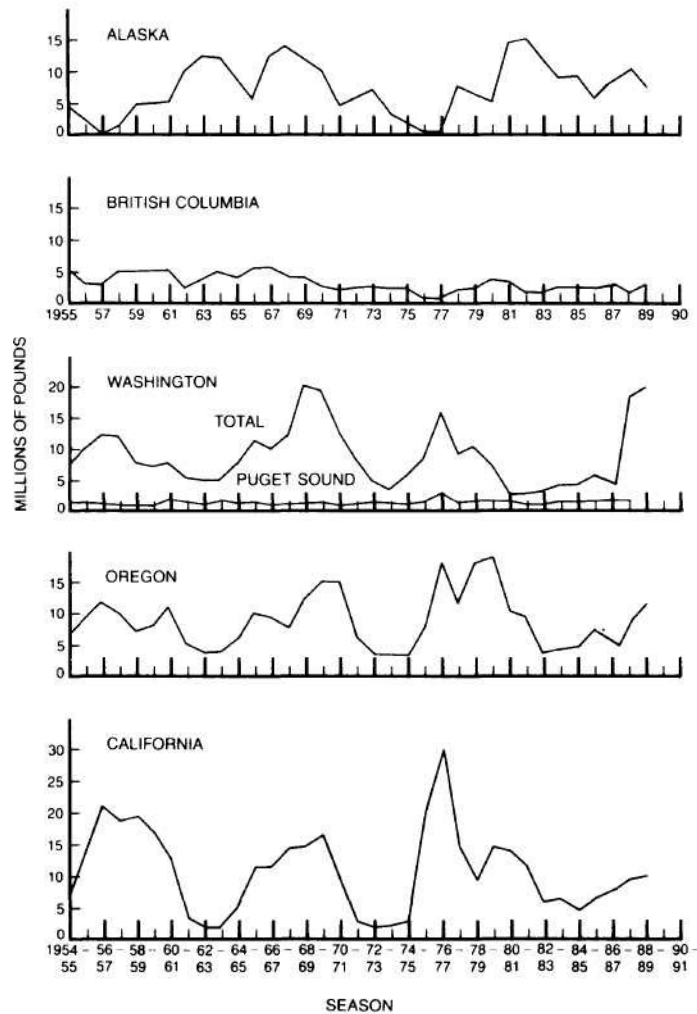


Figure 2. Dungeness crab landings by season 1954-55 through 1988-89, except Alaska and British Columbia seasons are all in the pertinent calendar years.

TROLL SALMON FISHERY IN 1989

ALASKA

The 1989 summer troll season consisted of several limited openings during June plus a general summer opening July 1-13. Chinook nonretention regulations were implemented from July 14 through August 13, and August 24 through September 20. Coho conservation closures included one 10 day region-wide closure August 14-23 and one closure in the District 13 portion of Sitka Sound, September 10-20. In portions of District 3, trolling for all species except chinook salmon was reopened September 21-30 to allow for additional harvest of coho returning to the Klawok Lake Hatchery.

In 1989, the Southeast Alaska troll fishery harvested 3.7 million pounds round weight of chinook, up slightly from 1988 but below the ten-year average of 4.6 million pounds.

The coho harvest of 8.2 million pounds is more than double the 1988 landings of 3.9 million pounds and is comparable with the 1979-80 mean of 8.9 million pounds.

WASHINGTON

Washington Non-Indian trollers targeted on chinook in a coho non-retention fishery that was open from Cape Falcon, Oregon, north to the Queets River, Washington. The fishery opened on May 1 and closed for evaluation on June 8. The fishery re-opened on June 13 and closed on June 15. The fishery was open for a total of 42 days.

Two all-species fisheries occurred in 1989. The first was a pink directed fishery which opened on August 7 from Carroll Island north to the US/Canada border. This closed for evaluation on August 10, re-opened on August 16 and finally closed on August 18 for a total opening of 7 days. The second all-species fishery opened, for one day only, on August 21, from Cape Falcon, Oregon, north to the red buoy line on the Columbia River. A daily landing limit for 40 coho and 4 chinook was in force. This fishery re-opened on August 24 and the northern boundary was extended to Leadbetter Point, Washington. The chinook daily limit was increased to 8 on August 28. This fishery closed on September 10 for a total opening of 19 days.

Landings from these fisheries, combined with those from the Treaty Indian commercial troll fishery, totaled 1.2 million pounds round for chinook and 0.7 million pounds round of coho. 1989 chinook landings were 20% below the 1988 landings of 1.5 million pounds round, but were roughly equal to the 10 year mean of 1.2 million pounds round. 1989 coho landings were 233% higher than the 1988 landings of 0.3 million pounds round, but was 50% below the 10 year average of 1.4 million pounds round.

OREGON

North of Cape Falcon regulations were identical to those discussed in the Washington section, above.

The area from Cape Falcon south to Orford Reef was open for chinook fishing from May 1 through July 14, and July 18 through October 31 with the following exceptions: Cape Arago to Orford Reef was closed July 14 through July 31, and August 18 through August 31. Coho fishing from Cape Falcon to Cascade Head was open without a daily limit July 12 through July 14. The season from July 18 through August 13 had a daily landing limit of 50 coho, and from August 14 through August 17 there was a ratio fishery of 2 coho for each chinook landed. From Cascade Head to Orford Reef, coho fishing was open July 1 through July 14 under a daily landing limit of 50 coho with an additional 3 coho for each chinook landed. A ratio fishery of 2 coho for each chinook landed was in force July 18 through August 17. A state waters fishery was open for chinook October 1 through November 30 from Cape Blanco to Humbug Mountain.

South of Humbug Mountain several small quota fisheries of short duration occurred in 1989. From May 1

through May 2 a chinook fishery was open from Sisters Rock to House Rock and seaward 6 miles. From June 5 through June 8, the area south of Humbug Mountain was open for coho and chinook with a daily landing limit of 20 chinook. From August 18 through August 20, and August 22 through August 31, the area south of Humbug Mountain was open for chinook with a daily landing limit of 20 chinook. The area from Sisters Rocks to Mack Arch and seaward 6 miles was open for chinook fishing from September 1 through September 14.

The 1989 chinook landings of 4.1 million pounds round weight were down 18% from 1988, but were still 29% above the 1979-88 ten-year average of 2.9 million pounds.

The 1989 coho harvest of 2.3 million pounds was 39% below the 1988 level of 3.8 million pounds and 8% less than the 1979-88 mean of 2.5 million pounds.

CALIFORNIA

The troll season north of Horse Mountain opened June 5 and closed June 8, paralleling the Oregon season south of Orford Reef Red Buoy. A special troll fishery inside 6 miles from Punta Gorda to Trinidad Head (centering on the Eel River mouth) opened September 15 and closed October 31 with a 15,000-fish chinook quota. South of Horse Mountain to Point Arena the troll season was open from June 5 through September 30, except for closures of May 18 through June 4, June 18 through July 1, and July 15 through July 28. Coho fishing was permitted south of Horse Mountain from June 5 through September 30 with a quota of 5,000 fish. Minimum size limits statewide for chinook and coho were 26 and 22 inches total length, respectively, and barbless hooks were required.

California preliminary troll chinook landings were 6.2 million pounds round, 15% lower than the previous 10-year average, and less than 40% of the 1988 landings which were the highest in California since 1916 when records were first kept. Preliminary landings of coho salmon were 0.3 million pounds round, only 60% of the previous ten-year average.

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Table 1. Estimated landings of troll caught chinook and coho salmon in 1989 and 10-year (1979-1988) average (round weights in millions of pounds). All 1989 data are preliminary.

Region	Species Chinook	
	1989	Average
Alaska	3.7	4.6
British Columbia	8.5	10.6
Washington	1.2	1.2
Oregon	4.1	2.9
California	6.2	7.3
TOTAL	23.7	26.2

Region	Species Coho	
	1989	Average
Alaska	8.2	8.9
British Columbia	15.0	16.6
Washington	0.7	1.4
Oregon	2.3	2.5
California	0.3	0.5
TOTAL	26.5	28.5

Region	Species = Chinook + Coho	
	1989	Average
Alaska	11.9	13.5
British Columbia	23.5	27.2
Washington	1.9	2.6
Oregon	6.4	5.4
California	6.5	7.8
TOTAL	50.2	56.5

Year	1988	1979-88	1989
Mean	3.2	11.2	1.2
1989	5.0	2.9	4.1
	16.5	7.3	6.2
	37.4	26.2	23.7

Table 2. Pacific Coast commercial troll chinook salmon landings in millions of pounds round, 1956-89. All 1989 data are preliminary.

Year	Alaska	British Columbia	Washington	Oregon	California	Total
1956	3.9	9.8	4.0	4.4	11.3	33.4
1957	5.1	9.7	4.8	3.0	5.3	27.9
1958	5.7	9.1	3.3	1.8	4.1	24.0
1959	6.7	8.7	2.7	0.5	7.5	26.1
1960	4.8	6.4	1.7	1.5	7.0	21.4
1961	2.9	6.0	2.5	1.4	9.3	22.1
1962	3.9	5.9	2.4	0.7	7.2	20.1
1963	4.1	6.8	2.8	1.6	7.9	23.2
1964	6.0	8.5	2.1	0.7	8.7	26.0
1965	5.1	8.8	1.3	0.7	9.3	25.2
1966	4.8	11.4	2.0	0.9	6.9	26.0
1967	4.3	10.4	1.7	1.3	4.4	22.1
1968	5.8	10.8	1.9	1.1	5.3	24.9
1969	5.1	10.8	2.3	1.4	5.6	25.2
1970	5.1	9.9	2.5	1.9	6.1	25.5
1971	4.9	15.2	3.1	1.2	5.7	30.1
1972	3.3	14.1	2.6	1.5	6.2	27.7
1973	5.0	12.7	3.8	4.0	8.7	34.2
1974	5.1	13.5	4.3	2.6	5.8	31.3
1975	4.4	12.6	3.3	3.0	6.6	29.9
1976	3.5	13.8	4.4	2.2	5.7	29.6
1977	4.7	12.1	3.3	4.0	6.6	30.7
1978	6.8	13.2	2.4	2.2	6.0	30.6
1979	6.0	11.1	2.0	3.0	7.9	30.0
1980	5.6	11.6	1.9	2.5	6.4	28.0
1981	4.9	10.2	1.4	1.8	6.8	25.1
1982	4.7	11.9	1.9	2.7	8.5	29.7
1983	5.0	6.5	0.8	0.8	2.4	15.5
1984	4.2	9.8	0.2	0.6	2.3	17.1
1985	3.8	9.8	0.6	2.3	5.2	21.7
1986	3.7	8.6	0.7	3.9	7.6	24.5
1987	4.9	11.6	1.1	6.0	9.5	33.1

Table 3. Pacific Coast commercial troll coho salmon landings in millions of pounds round, 1956-1989. All 1989 data are preliminary.

Alaska	British Columbia	Wash- ington	Oregon	California	Total			
	12.9	5.3	3.2	0.5	25.7	1956	3.9	
	14.4	5.0	3.9	0.6	31.4	1957	7.5	
	15.6	4.7	1.3	0.1	26.9	1958	5.2	
	11.7	3.7	1.0	0.3	22.5	1959	5.8	
	9.3	1.5	0.8	0.1	14.2	1960	2.5	
	14.8	4.2	2.3	0.6	25.5	1961	3.6	
	16.4	4.7	2.2	0.4	28.9	1962	5.2	
	16.1	4.0	3.0	1.2	30.6	1963	6.3	
	20.5	4.6	4.2	2.2	37.2			1964 5.7
	23.5	7.4	4.8	1.8	43.7			1965 6.2
	24.3	6.1	5.2	4.0	44.3			
	14.1	6.2	8.3	3.9	36.7	1966	4.7	
	22.6	4.5	5.1	2.7	40.7	1967	4.2	
	12.7	3.3	3.6	1.4	24.1	1968	5.8	
	17.3	6.1	8.7	1.5	35.8	1969	3.1	
	21.4	7.9	10.1	3.7	46.2	1970	2.2	
	15.9	3.9	5.6	1.2	32.3	1971	3.1	
	16.2	4.3	5.9	2.3	33.2	1972	5.7	
	15.6	6.4	8.3	4.3	41.3	1973	4.5	
	9.5	5.1	4.7	1.3	22.1	1974	6.7	
	15.3	7.2	10.4	3.3	40.5	1975	1.5	
	14.4	4.3	3.0	0.2	26.8	1976	4.3	
	14.9	3.2	3.2	1.5	30.8	1977	4.9	
	17.7	4.2	5.3	1.2	35.5	1978	8.0	
	15.3	2.3	2.5	0.3	25.8	1979	7.1	
	11.3	2.0	3.8	0.5	24.1	1980	5.4	
	15.8	2.2	3.1	0.6	31.7	1981	6.5	
	13.3	0.3	1.3	0.3	24.8	1982	10.0	
	17.3	0.3	0.1	0.4	29.3	1983	9.6	
	17.3	0.6	0.6	0.1	32.1	1984	11.2	
	23.0	0.7	2.2	0.8	30.1	1985	13.5	
	18.5	0.7	2.2	0.3	30.0	1986	13.9	
	13.1	0.3	3.8	0.4	21.5	1987	8.3	
						1988	3.9	
						1979-		
						Mean	8.9	
						1989		
	16.6	1.4	2.5	0.5	28.5			
	15.0	0.7	2.3	0.3	26.5			

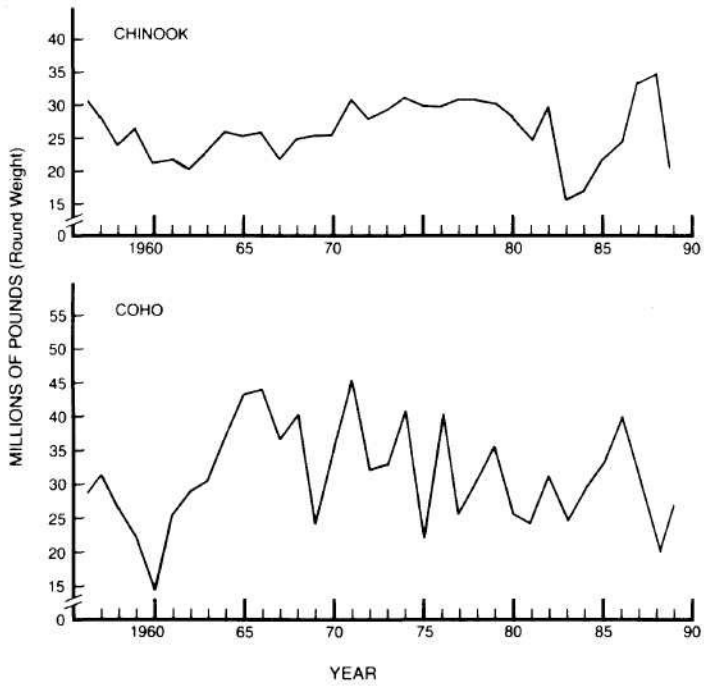


Figure 1. Pacific Coast annual landings of troll caught Chinook and coho salmon, 1956-1988 and preliminary 1989.

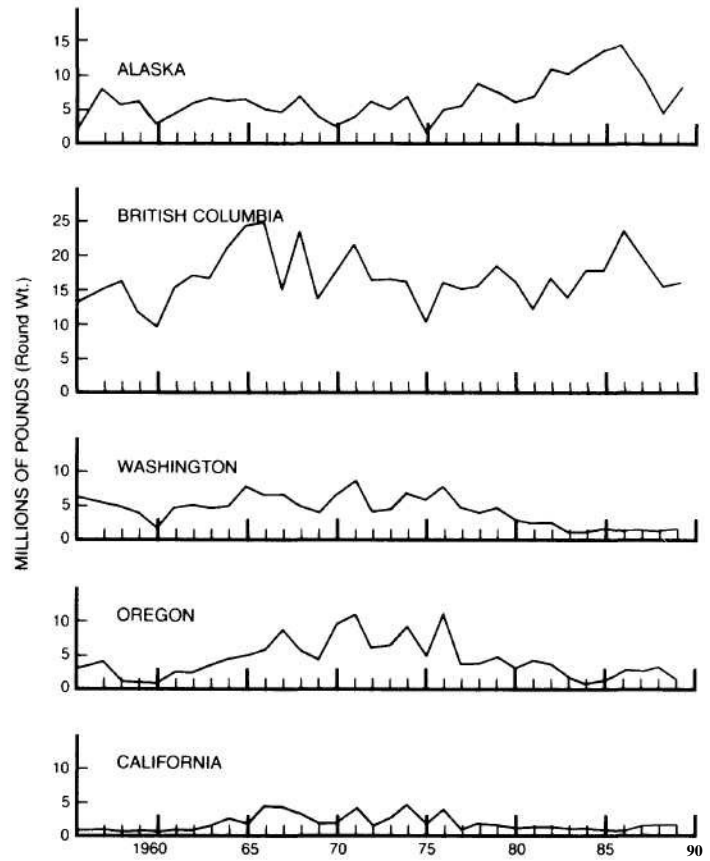


Figure 3. Annual troll coho salmon landings by area, 1956-1988 and preliminary 1989.

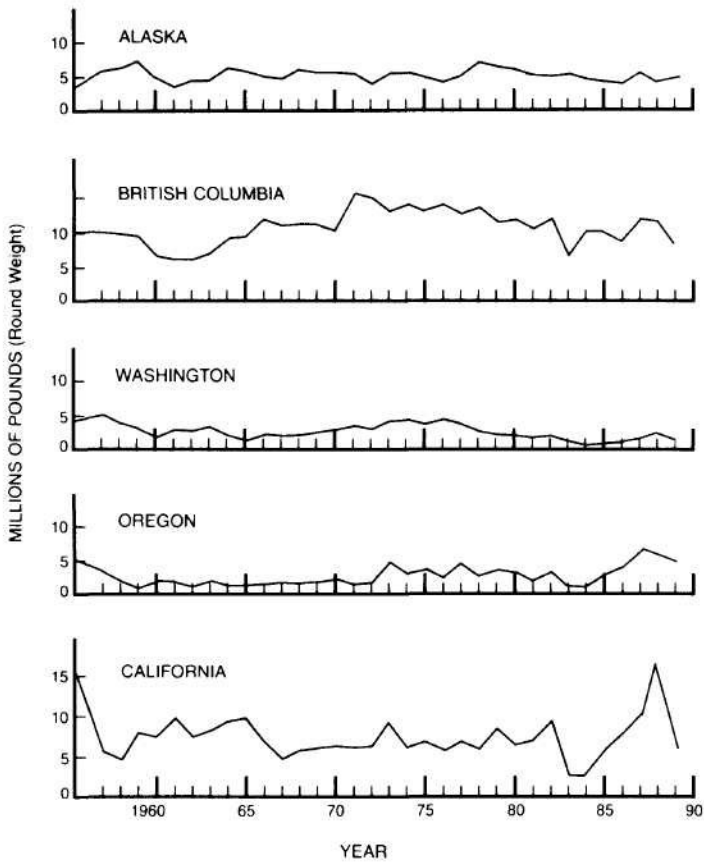


Figure 2. Annual troll Chinook salmon landings by area, 1956-1988 and preliminary 1989.

SALMON AND STEELHEAD SPORT CATCHES IN 1988

ALASKA

Alaska anglers harvested 907,757 salmon and 6,258 steelhead in 1988. The salmon harvest was 55% greater than the ten-year average and was exceeded only by the 1987 harvest. The steelhead harvest was 33% greater than the 1987 harvest and was 40% greater than the ten-year average.

CALIFORNIA

The 1988 ocean sport salmon catch, estimated at 206,800 fish, was down about 14% from the 1987 harvest of 239.8 fish. It was higher than the ten-year average. Coho salmon made up 17% of the ocean sport salmon catch in 1988. Steelhead catches are not estimated in California and no catch data is available.

IDAHO

A spring chinook salmon sport fishery was opened in 1988 and resulted in the harvest of 704 salmon. Steelhead anglers harvested 21,327 fish in 1988; 29% less than the 1987 harvest and 4% less than the ten-year average.

OREGON

The 252,000 ocean salmon angler trips in 1988 was 2% less than the 1987 effort, but the success rate was up. The ocean recreational catch of 265,000 salmon exceeded 1987 landings by 11% and was the best year since 1980.

Chinook catches decreased from a near record 58,600 fish in 1987 to 38,600 in 1988 but was still above the 1978-87 average of 30,900 chinook.

Coho catches rose 22% from 177,400 fish in 1987 to 226,400 taken in 1988. The ten-year average catch is 198,300 coho salmon.

The steelhead catch of 174,100 fish in 1988 was about 8% above both the 1987 catch and the ten-year average of 159,800 steelhead. Only a fraction of this catch is made in the ocean.

WASHINGTON

The estimated 1.26 million Washington marine recreational salmon angler trips in 1988 were 18% below the 1.54 million angler trips in 1987.

A total of 746,575 salmon were landed in Washington in 1988 (includes both freshwater and marine landings). Of these, 211,003 were chinook and 424,598 were coho. Total salmon landings were 5% below the total landings of 782,834 in 1987. Landings of both chinook (down 9%) and coho (down 7%) were also below the 1987 levels.

A total of 138,000 steelhead were harvested by sport anglers in 1988. This harvest was 3.4% greater than the ten-year average.

CANADA

The 1988 sport angler harvest of salmon was 1,529,000 fish (preliminary estimate). Information on steelhead sport harvest was not available.

Contributors:

Al Didier, Alaska Department of Fish & Game Joe Lesh, California Department of Fish & Game Peter Hassemer, Idaho Department of Fish & Game Laimons Osis, Oregon Department of Fish & Wildlife Rick Moore, Washington Department of Fisheries Bill Taylor, Washington Department of Wildlife Leah Bijsterveld, Canadian Department of Fisheries & Oceans

Table 1. Salmon and steelhead sport harvest, 1988.

State	Chinook	Coho	Pink	Other Salmon ¹	Steelhead	Total
Alaska	134,452	281,450	156,759	335,096	6,288	914,045
Wash.	211,083	424,598	98	110,795	138,000	884,574
Oregon	38,600 ²	226,400 ²	—	—	174,100	439,100
Idaho	704	—	—	—	21,327	22,031
Calif.	172,100	34,700	—	—	³	206,800
Total	556,939	967,148	156,857	445,891	339,715	2,466,550

¹Sockeye and chum salmon

²Marine catch only

Unavailable

20

Table 2. Salmon and steelhead sport catches (1,000's of fish) for the Pacific Coast States, 1974 to 1988 and 10-year (1978 to 1987) averages. Underlined numbers have been changed from previous report.

Year	Alaska		California		Idaho		Oregon		Washington		Total	
	Salmon	Steelhead	Salmon ²	Steelhd.	Salmon	Steelhead	Salmon ²	Steelhead	Salmon ²	Steelhead	Salmon	Steelhd. ¹
1974	184.9	1.0	234.0		1.5	3.0	351.3	166.8	1,320.4	110.0	2,092.1	280.8
1975	178.0	2.2	125.0		0.0	0.0	329.1	185.5	1,399.4	92.9	2,031.5	280.6
1976	200.6	2.3	139.0	Steelhead	0.0	2.0	580.7	118.3	1,749.6	89.1	2,669.9	211.7
1977	381.1	3.7	154.0	catches	3.5	13.0	260.7	145.1	1,191.4	100.0	1,990.7	261.8
1978	525.4	4.3	128.0	are	7.0	11.5	282.6	200.6	1,107.9	163.1	2,050.9	379.5
1979	361.2	3.0	138.7	not	closed	5.7	202.3	122.4	1,123.9	94.8	1,826.1	225.9
1980	531.8	4.8	107.0	estimated	closed	9.1	344.9	203.7	852.9	151.1	1,836.6	368.7
1981	379.5	3.3	91.6	in	closed	13.0	230.6	155.0	760.1	125.1	1,461.8	296.4
1982	597.3	3.7	170.4	California	closed	20.5	213.9	135.1	736.9	104.2	1,718.5	263.5
1983	532.5	5.4	90.9		closed	32.2	171.7	84.2	860.6	78.6	1,655.7	200.4
1984	625.8	6.5	107.6		closed	25.1	140.3	198.4	561.4	149.5	1,435.1	379.5
1985	619.2	4.7	175.8			2.5	246.1	188.4	686.3	165.8	1,729.9	393.4
1986	720.5	5.8	160.3			4.0	234.0	149.5	830.6	168.5	1,949.4	363.8
1987	<u>969.9</u>	<u>5.9</u>	<u>239.8</u>			<u>0.7</u>	<u>236.0</u>	<u>161.0</u>	<u>782.8</u>	<u>134.5</u>	<u>2,229.2</u>	<u>331.6</u>
10-year average	586.3	4.7	141.0			1.4	230.2	159.8	830.3	133.5	1,789.3	320.3
1988	907.8	6.3	206.8			0.7	265.0	174.1	746.6	138.0	2,126.9	339.7

¹Excluding California catch

²Marine fishery data only

SHRIMP FISHERY IN 1989

The 1989 Pacific coast pandalid shrimp landings in the United States and Canada totaled 86.4 million pounds (Table 1), an 8.7% increase over 1988 landings. The increase resulted from larger landings from British Columbia, Oregon and California.

Table 1. Annual Pacific Coast pandalid shrimp landings (in 1000's of pounds) by State and Province, 1975-1989.

Year	Alaska	British Columbia	Wash- ington	Oregon	Calif- ornia	Total
1975	98,535	1,728	10,167	23,893	4,993	139,316
1976	129,011	7,723	9,261	25,392	3,400	174,787
1977	116,011	6,176	11,803	48,580	15,633	199,083
1978	73,293	3,460	12,298	56,997	13,167	159,211
1979	50,916	1,578	12,135	29,579	4,992	99,130
1980	52,568	1,500	12,629	30,152	5,050	101,899
1981	28,029	1,841	10,055	25,918	3,670	69,513
1982	16,987	1,200	5,000	18,462	4,550	46,436
1983	7,458	1,200	5,656	6,547	1,132	21,995
1984	9,539	2,009	3,423	4,844	1,485	21,300
1985	4,204	2,969	9,118	14,848	3,293	34,432
1986	4,064	2,400	17,400	33,798	6,800	64,462
1987	2,457	4,700	15,900	44,800	7,800	75,657
1988	2,521	5,600	18,200	41,484	11,100	78,905
Mean	45,542	3,149	10,932	28,949	6,218	91,866
1989	1,885	6,300	15,870	49,083	13,314	86,452

CALIFORNIA

California 1989 statewide landings of ocean shrimp, *Pandalus jordani*, increased to 13.3 million pounds from 11.1 million pounds landed in 1988. This years landings were the third largest total and the sixth consecutive rise in statewide landings.

PSMFCAREA 92

Shrimp landings at the ports of Eureka and Crescent City totaled 12.5 million pounds, a 2.2 million pound increase over 1988 deliveries. These landings tie with 1978 for the second largest landings ever. The total landings were composed of 11.74 million pounds from area 92 waters, 250 thousand pounds from area 94, 423 thousand pounds from area 88 and 41 thousand pounds from area 86 waters. The season opened April 1 with fishermen receiving a split price of \$0.40/lb for shrimp at or below 140/lb and \$0.25/lb for smaller shrimp. Shrimpers were on strike for most of July over a price disagreement which was finally settled at \$0.35/lb for 140 count shrimp or better with no guarantee for any payment for smaller shrimp. A total of 56 boats (36 single-rigged and 20 double-rigged) made 1009 trips (668 S.R., 341 D.R.) during 1989 down 1 boat but up 44 trips from 1988 totals. Single-rigged vessels had an average seasonal catch

rate of 543 lb/hr, an increase of 55 lb/hr over 1988. Double-riggers averaged 843 lb/hr, up from 758 lb/hr during 1988.

PSMFCAREA 94

Landings in area 94 were 833 thousand pounds this season, compared to 379 thousand in 1988. Five single-rigged boats delivered to area 94 ports in 1989. Forty percent of the catch landed in area 94 (Fort Bragg) was made in April. One local boat made 54% of the total landings. Ex-vessel price was the same as in area 92.

CPUE as pounds per hour averaged 857 with a range of 350 to 1189. One-year-olds made up from 27% to 73% of the sampled catch. There were no zero-aged shrimp noted during the season. Count per pound increased in May, causing several fishers to return to groundfish trawling until the count improved.

PSMFCAREA 96

No landings.

PSMFCAREA 98

Area 98 shrimp landings for 1989 was 24 thousand pounds, down considerably from the 380 thousand pounds landed in 1988. This was the least productive year since 1978 when no shrimp were landed. Four single-rigged vessels made 5 trips and averaged 314 lb/hr.

OREGON

The 1989 fishery for ocean pink shrimp (*Pandalus jordani*) resulted in the second highest total harvest since the fishery began in 1957. The landed catch totaled approximately 49.1 million pounds (Table 2). This compares to the 1978-1988 average annual landing of 26.9 million pounds. A total of 188 vessels made 2,839 deliveries during the 1 April 1989 through 31 October 1989 season. Comparatively, 172 vessels made 2,558 deliveries during the 1988 season.

The total effort (hours) expended to harvest the landed catch was 92,908h, an increase of 13,839h over 1988 (Table 2). Total CPUE was 528 lb/h in 1989, virtually identical to the CPUE in 1988. As in 1988 PSMFC areas 84 and 86 had the most pounds harvested and the most effort expended. Harvest and effort were greater this year on the south coast however, with areas 88 and 92 making larger contributions.

The 1989 season began quickly with fishable weather and no price disputes. Effort and landings remained strong until late June when a price dispute developed between fishermen and processors. The price dispute was influenced heavily by the large landings seen from April through June, combined with a slow mid-season market. Processors apparently wanted to avoid exceptionally large inventories and consequently dropped the price to reduce inventory and offset storage costs. Fishermen in most ports responded by tying up for nearly a month before accepting a slightly lower price. Strong landings resumed in late July and continued through October.

Table 2. Oregon landings (lb) of Pink Shrimp and Effort (h) during 1988 and 1989, by PSMFC Area of Harvest.

PSMFC Area	Geographic Boundaries	11b Landed 1989	h Fished 1989	lb Fished 1988	h Fished 1988
72	Cape Flattery to Cape Elizabeth	1,718,885	3,051	1,405,724	1,974
74	Cape Elizabeth to Willapa Bay	2,157,070	3,860	4,312,626	7,123
75	Willapa Bay to Columbia River	302,903	611	122,308	463
82	Columbia River to Cape Falcon	4,710,626	10,380	5,031,069	9,562
84	Cape Falcon to Cape Perpetua	14,012,731	31,014	14,427,245	30,562
86	Cape Perpetua to Cape Blanco	18,728,251	32,988	13,345,296	23,693
88	Cape Blanco to California border	6,216,738	9,218	2,637,122	4,577
92	Calif, borderto Cape Mendocino	1,236,267	1,787	564,807	1,115

A two-tiered price structure was evident again this year. The opening price was \$0.40/lb for shrimp larger than about 140 count-per-pound and \$0.25/lb for smaller legal shrimp. The price structure was stable through the remainder of the season. Most shrimp landed were sold at the higher of the two prices.

Count-per-pound problems were minimal during 1989. Early season problems were alleviated by the presence of a fairly high percentage of two year olds from the 1987 brood.

Zero age shrimp were notably absent in market samples taken during September and October. Many fishermen expressed concern and some predicted a poor 1990 season because of their absence. Although seemingly not a good sign, the relationship between a lack of zero's in market samples and incoming year-class strength remains unclear.

Gravid females were abundant in the catch at the beginning of the season. Females with eggs were present throughout April. The phenomenon was most pronounced on the south coast where 61% of all females sampled during April were carrying eggs.

WASHINGTON

Landings of pink shrimp into Washington totaled 15.87 million pounds in 1989, constituting the fourth highest total on record, and the fourth year of strong landings in a row. Vessels landing at least one load of pink shrimp numbered 74, with 52 vessels making 5 or more landings. In 1986, '87, and '88 vessels making 5 or more landings numbered 65, 56, and 53 respectively.

Shrimp fishermen had one of the best Aprils in years, as large catches of big shrimp prevailed, with CPUE (double rigs) averaging over 700 lb/hr in some areas. CPUE dropped to between 400 and 500 lb/hr but landings continued high into June before tailing off during the July tie-up and following months.

Ex-vessel prices for shrimp were relatively low from the outset. The season opened at \$0.40/lb for shrimp larger than 140 to the pound, and \$0.25/lb for smaller shrimp. July saw a downturn in the market and a subsequent drop in prices, disputed via a tie-up by fishermen. A price of \$0.35/lb was

settled upon, again with a \$0.25/lb split at 140 count. This price structure, with minor variations, held through the remainder of the season.

As a note, we noticed some undersize shrimp crossing the dock in late June when one buyer temporarily reduced the price split to 30 and 25 cents. Apparently a nickel isn't enough incentive to influence the size of shrimp targeted on and retained. Overall, however, we had little problem with undersized shrimp.

BRITISH COLUMBIA

Based on incomplete results, the estimated shrimp catch for British Columbia was approximately 6.3 million pounds. Trawl catches of ocean shrimp (*Pandalus jordani*) were about 5.1 million pounds, up about 6% from 1988. Trap catches of spot prawn (*P. platyceros*) were about 1.2 million pounds, up about 9% from 1988.

ALASKA

The total shrimp catches for 1989 were 1.89 million pounds, a drop of 630 thousand pounds from 1988 landings. The statewide harvest for 1989 was composed of 1.84 million pounds from Southeast Alaska, 25 thousand pounds from Prince William Sound and 20 thousand pounds from Cook Inlet. Currently shrimp stocks in Alaska are depressed and the Alaska Department of Fish and Game expects no substantial increase in commercial harvests during 1990. The landings during 1976 and 1977 were over 100 million pounds (Table 1).

Compiled by: Patrick Collier, California Department of Fish & Game

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JOINT VENTURE FISHERIES OFF THE PACIFIC COAST IN 1989

Washington, Oregon and California

In 1989, five foreign nations, the Soviet Union, Poland, Japan, the Republic of Korea, and the People's Republic of China, were involved in joint venture fisheries for Pacific whiting (whiting or hake) off Washington, Oregon, and California. The joint venture fishery, in which U.S. vessels deliver their catch at sea to foreign processing vessels, is the largest groundfish fishery off Washington, Oregon and California in terms of tons landed, accounted for more than half of the groundfish landed in 1989. There was no directed foreign fishery in 1989.

In 1989, joint venture operations involved Poland, the Soviet Union, Japan, the Republic of Korea, and the People's Republic of China. The Soviet Union has conducted joint ventures since 1978 and Poland has participated since 1984. The Republic of Korea and the People's Republic of China were new participants to the fishery in 1987 and Japan entered the fishery in 1988. Over 98 percent (203,600 metric tons) of the 207,000 metric tons of whiting available for joint venture processing was taken in 1989, a 50 percent increase in tonnage since 1988 and the highest amount on record. Approximately one third of the whiting taken in the 1989 joint venture was used for surimi; most of the remaining two-thirds was headed and gutted or fillet product.

At most, 53 foreign vessels (trawl, processing, and support vessels) operated in any one day off the coast, the highest density of foreign vessels in the EEZ since 1981 and a substantial increase over the 1988 figure of 33 foreign ves-

sels. Because the joint venture operates under an "Olympic system" (first come, first serve), the increased effort resulted in an extremely short season of only 11 weeks in 1989, about half as long as in previous years.

Year	1981	1982	1983	1984	1985	1986	1987	1988	1989
No. of Vessels	41	18	21	25	24	36	39	33	53

A total of 44 different foreign processing vessels received whiting from 65 U.S. trawlers during the joint venture season, also the highest numbers on record. The next highest year was 1988 when 31 foreign processing vessels received whiting from 40 U.S. trawlers.

Although shortbelly rockfish were available for joint venture processing in 1989 and joint venture applications were received, no joint venture occurred. Substantial areas were closed in the ocean south of 39°N. latitude for national security reasons, and the potential participants decided the operation would not be viable.

The U.S. Coast Guard and special agents of the National Marine Fisheries Service spent a total of 364 patrol days (cutter days) monitoring compliance with the foreign fishing regulations in 1989. Seventy boardings of foreign vessels were conducted. Sixteen alleged violations docu-

merited by foreign fisheries observers currently are under investigation.

NOTE: The species amounts in this section combine reports from foreign vessels and the National Marine Fisheries Service foreign fishing observers, and are preliminary. Consequently, the amounts given here may not be identical with those provided by a foreign nation or joint venture company.)

ALASKA

The Alaska portion of this section also includes JV fisheries off Alaska during 1988 as this was not included in last years annual report. The domestic fishery is also discussed to show the changes that are related to JV fishery changes. - Ed.

Joint Ventures 1988

Due to the continued expansion of DAP fisheries, joint venture catches declined in 1988 by about 2% from their high year in 1987. Total deliveries of Alaskan groundfish by U.S. catcher-boats to foreign processing vessels was 1,305 million metric tons, with an ex-vessel value of \$183 million. Foreign partners included companies from Republic of Korea, Japan, Republic of China, the Soviet Union, Poland and Iceland. The catcher-boat fleet increased from the previous year by ten boats, to 131 vessels.

The total Bering Sea and Aleutian Islands catch of pollock reached 826,000mt; of yellowfin sole, 213,000mt; of other flatfish, 115,000mt; of Pacific cod, 110,000mt; and of Atka mackerel, 19,600mt. A small Gulf of Alaska fishery for flatfish took less than 2,000mt.

1989

Joint venture catches dropped to less than half of 1988's, with total deliveries of 525,000mt valued at \$86.7 million, ex-vessel. The same foreign nations participated as in 1988. U.S. catcher-boats totalled 118, including seven first-timers.

The Bering Sea and Aleutian Islands fisheries took place in two seasons, winter and fall. The winter season, which extended from January 1 to March 12 included a short pollock fishery, with somewhat longer openings for Pacific cod, rock sole, yellowfin sole and flatfish. After joint venture quotas were considerably increased in September, fisheries continued for pollock, yellowfin sole and other flatfish. This season was disrupted by an unprecedented special allocation to Polish joint ventures, which caused intermittent closures for companies of other nations and resulted in pollock quota being left uncaught at the end of the year.

Total deliveries of pollock were 288,000mt; of yellowfin sole, 151,000mt; other flatfish, 19,000mt; rock sole, 21,000mt; and Pacific cod, 44,000mt. No fishing took place in the Gulf of Alaska.

Domestic Fisheries 1988

For the second year in a row, the DAP fisheries off Alaska more than doubled, for a total catch of 824,000mt valued at \$237 million, ex-vessel. Pollock catches exceeded 589,000mt and Pacific cod catches were almost 119,000mt. For the flatfish species, 1988 marked the first year of DAP interest in yellowfin sole with a catch of 7,800mt; continued

expansion of the rock sole fishery, to 23,200mt; and a Greenland turbot catch of almost 7,000mt. The first substantial DAP deliveries of Atka mackerel were made, about 2,000mt. Catches of "fully-utilized" (by DAP) species remained at high levels, in particular sablefish, for which Gulf of Alaska quotas were increased in 1988.

The fleet of catcher/processors expanded dramatically, to include 17 longliners, 38 trawlers and 7 vessels employing pot gear. There were four factory motherships receiving fish from U.S. catcher-boats. The at-sea processing component of the fishery accounted for 540,000mt or 66 percent of the DAP catch. The shoreside component accounted for 284,000mt.

1989

Another considerable increase in DAP capacity resulted in a catch of 1,425,000mt valued at \$341.3 million. Additional at-sea processing capacity in 1989 accounted for a doubling of that component of DAP, to almost 1.1 million mt. Catcher/processor longliners increased to 26 and trawlers to 49. Eight motherships received deliveries from catcher-boats, many of which had originally operated in joint ventures. Shoreside operations added new plants and additional processing lines, in particular at Kodiak and Dutch Harbor, and accounted for 341,000mt.

Pollock catches accounted for most of the increase, exceeding 1,090,000mt. Pacific cod also increased, to 167,000mt, as did Atka mackerel to almost 19,000mt. Of the flatfish species, yellowfin sole catch decreased to just over 5,000mt, while rock sole increased to 33,625mt and Greenland turbot to almost 9,000mt. Other flatfish landings increased also, mostly in the Gulf of Alaska, where a special project for product development of underutilized flatfish species was ongoing.

In 1989 DAP fisheries encountered types of closures unanticipated by the industry. In response to these closures, emergency rules to be in effect in 1990 were developed and plan amendments for 1991 proposed, containing substantial changes to current management measures, which were aimed at alleviating the problems encountered in 1989.

The first example was the closure of the Gulf of Alaska pollock fishery in late March. A substantial portion of the pollock quota was taken by catcher/processors in a short period, which then returned to the Bering Sea after the closure; Kodiak and other shoreside plants which were planning for a longer season for pollock were prevented from achieving their production goals.

More far-reaching were closures triggered by caps and quotas of prohibited species. On September 2, the entire Gulf of Alaska was closed to bottom trawling because the Pacific halibut bycatch quota had been taken. Despite a small fishery for flatfish which was reopened under strict monitoring in November, Gulf catches of Pacific cod and flatfish were much lower than anticipated pre-season as a result of the closure. Similarly, a day later, a key area of the Bering Sea was closed to all flatfish fishing and bottom trawling for pollock and Pacific cod when an amendment establishing caps for red king crab in that area (among other caps) became effective.

Compiled by:

Kate King, NMFS/NWR
Janet Smoker, NMFS/AKR

PERSONNEL

COMMISSIONERS

The following were commissioners during all or part of 1989:

Alaska

Fred Gaffney, Juneau
Richard Eliason, Sitka
Pete Isleib, Juneau

California

Gerald Felando, Sacramento
Donald Hansen, Dana Point
A.E. "Spike" Naylor, Sacramento

Idaho

Ron Beitelspacher, Grangeville
Jerry Conley, Boise
Richard Meiers, Eagle

Oregon

Paul Hanneman, Cloverdale
Paul Heikkila, Coquille
Jim Martin, Portland

Washington

Robert Alverson, Seattle
Robert Turner, Olympia
Brad Owen, Shelton

ADVISORS

The Advisory Committee is composed of representatives of the major user groups in each State. The following were Advisory Committee members during all or part of 1989:

Alaska

Chris Blackburn, Kodiak
Jim Green, Ketchikan
Paul Gronholdt, Sand Point
Jack Lechner, Kodiak
Henry Mitchell, Anchorage
Bruce Wallace, Ketchikan

California

James Bunn, Rancho Palos Verdes
Robert Fletcher, San Diego
Harold Olsen, Torrance
Charles Platt, Fort Bragg
Robert Ross, Sacramento
Roger Thomas, Sausalito
Tony West, San Pedro

Idaho

Keith Carlson, Lewiston
Norman Guth, Salmon
Louis Racine, Pocatello

Oregon

Don Christenson, Newport
Joe Easley, Astoria
Harriet Engblom, Astoria
Herb Goblirsch, Otter Rock
John Marincovich, Astoria
Ron Sparks, Newport
Frank Warrens, Portland

Washington

Donald Bevan, Seattle
Ben Deeble, Seattle
Steve Hughes, Seattle
"Buzz" Johnson, Olympia
Rudy Peterson, Seattle
Terry Wright, Olympia
Robert Zuanich, Seattle

COORDINATORS

PSMFC Coordinators facilitate all aspects of PSMFC programs within their State. The following were PSMFC Coordinators in each State in 1989: **Alaska**

Fred Gaffney, Alaska Dept. Fish & Game

California

Alicia Wenbourne, Assemblyman Felando's Staff

Idaho

Steve Huffaker, Idaho Dept. Fish & Game

Oregon

Kay Brown, Oregon Dept. of Fish & Wildlife

Washington

Robert Turner, Washington Dept. of Fisheries

PSMFC EXECUTIVE STAFF

Guy Thornburgh, Executive Director
Russell Porter, Assistant Director
Dave Hanson, Fisheries Coordinator
J. Kenneth Johnson, RMPC Coordinator
Will Daspit, PacFIN Systems Manager
Pam Kahut, Fiscal Manager
Mary Washkoske, Personnel/Fiscal Assistant
Theresa Fogg, Secretary
Jerry Fisher, Treasurer
Gloria Smith, System Planning Contract Specialist
James Longwill, RMPC Programmer
Yvonne Nylund, PacFIN Programmer
Ed Kiel, PacFIN Computer Aide

10-YEAR STAFF AWARDS

Ken Johnson and Pam Kahut were recognized at the October Annual Meeting banquet for their ten years of service with the Commission.

Ken Johnson is the Manager of the Regional Mark Processing Center and is responsible for coordinating the marking and recovery of tagged salmon and steelhead from California to Alaska. Ken has helped the states, tribes and federal agencies build a coastwide system that exemplifies the highest level of interjurisdictional cooperation, data quality, and data sharing.

Pam Kahut is the Commission's fiscal manager and diligently manages the ever growing contract/payroll load. Her impeccable standards and untiring dedication have helped develop the Commission's reputation for "high quality - low cost" fiscal administration.