



Pacific States Marine Fisheries Commission



SCHWABACHER LANDING SUNRISE, IDAHO

2008 Annual Report

PUBLISHED FOR THE CONGRESS OF THE UNITED STATES AND THE GOVERNORS AND LEGISLATURES OF
WASHINGTON, OREGON, CALIFORNIA, ALASKA AND IDAHO

61ST ANNUAL REPORT OF THE PACIFIC STATES MARINE FISHERIES COMMISSION

To the Congress of the United States
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; 766; and 315
of the 80th; 87th; and 91st Congresses
of the United States
assenting thereto.

Respectfully submitted,
PACIFIC STATES MARINE FISHERIES COMMISSION
Randy Fisher, *Executive Director*

Headquarters
205 SE Spokane Street, Suite 100
Portland, Oregon 97202-6413
2008

PACIFIC STATES MARINE FISHERIES COMMISSION MEMBERS 2008

State	Commissioners	Advisors	Coordinator
Alaska	Sue Aspelund Stephanie Madsen Bryce Edgmon	Terry Johnson Don Lane Matthew Moir Gabe Sam Joe Childers	Herman Savikko (ADFG)
California	LB Boydston Thomas Harman John McCamman	Jim Caito Robert Fletcher Donald K. Hansen Mike McCorkle Roger Thomas Kate Wing	Marija Vojkovich (CDFG)
Idaho	Cal Groen Joe Stegner Cameron Wheeler	Sharon Kiefer Virgil Moore Ed Schriever	Pete Hassemer (IDFG)
Oregon	Ed Bowles Paul Heikkila Wayne Krieger	Wayne Butler Jeff Feldner Steve Fick Liz Hamilton Rod Moore Brad Pettinger Frank Warrens	Gway Kirchner (ODFW)
Washington	Dr. Jeff Koenings Harriet A. Spanel	Mark Cedergreen Marion Larkin Irene Martin Lisa Pelly Bill Robinson Terry Wright	Phil Anderson (WDFG)

PACIFIC STATES MARINE FISHERIES COMMISSION

61 YEARS

*Remarks by Randy Fisher, Executive Director
at the PSMFC Annual Meeting, September 21-24, 2008*

Welcome to the 61st annual meeting of the Pacific States Marine Fisheries Commission. Out of curiosity, I went back and looked at what the Commission discussed at its first annual meeting. One topic of discussion was that the existing methods of determining sport catches were inadequate and better methods were needed. Also at that time, both Washington and Oregon were encouraged to institute or revise laws to prevent incidental introductions of exotic marine organisms, and the Commission stated that more studies were needed to evaluate the economics of the fishery resources.

I then went back and looked at what we discussed five years ago at the Commission's meeting here in Sun Valley. Dr. William Hogarth briefed the Commission on regional meetings that NMFS was conducting. These meetings were aimed at creating a forum for an open and honest exchange of views on the status and management of marine fisheries. Andy Rosenberg briefed the Commission about the U.S. Commission on Ocean Policy, which is still a live topic today. A presentation on individual fishing quotas was made—a topic that Dr. Don McIsaac will address at this meeting. The issues of full retention, bycatch, MMPAs and science in the Council process, which were all addressed in the Magnuson reauthorization, were also on the agenda. Some of these issues that were addressed five years ago are on the agenda once again at this meeting.

2007 was an interesting and challenging year, and some of the Commission's activities for the year included:

California Fisheries Database Projects – Stan Allen and his staff have worked with the Department of Fish and Game on over 50 projects. The Central Valley Constant Fractional Marking Program just concluded its second year. Every year, this program coded-wire tags and fin clips 85 percent of the Central Valley fall Chinook salmon production—34 million fish in total. The program also provides technical and staffing assistance to the nearshore remotely operated vehicle (ROV) program, which collects data on nearshore fish abundance and habitat. Stan has been working with the California Department of Fish and Game and the Ecosystem Restoration Program to develop a long-term, comprehensive Central Valley hatchery Chinook salmon and steelhead escapement and monitoring plan.

RecFIN and Northern Pikeminnow Management Program—Russell Porter is the manager of these two recreational catch programs for the region. The sampling program is continually being refined. Russell and his staff have been working with the Groundfish Management Team to bring recreational estimates in line with the upcoming 2009-2010 Groundfish Management Plan. Recreational catches for the West Coast are posted to the RecFIN website on a monthly basis with a one-month delay for processing and final estimation checks. The Commission is also fully involved in NOAA's ongoing Marine Recreational Information Program (MRIP).

The Northern Pikeminnow Management Program pays a reward of \$8 for every pikeminnow that is caught during the season. At the end of 2007, the Oregon Department of Fish and Wildlife completed its annual evaluation of the program and determined that pikeminnow removals have reduced predation on Columbia River salmon smolts by 37 percent. This program has saved about five million smolts per year.

Regional Mark Information System—George Nandor and his staff have coded-wire tag recovery data for the Klamath Basin. The data are current and cover the past six years. They have also been working to map these coded-wire tag data, and those data maps will be on display at this meeting.

Aquatic Nuisance Species Program—The Commission is continually active in efforts to prevent the introduction of invasive species and Stephen Phillips will provide a briefing on current ANS activities. In addition, Stephen oversees the Coastal Cutthroat Trout Database Project, which documents data on presence and absence of coastal cutthroat and their monitoring locations. The Commission also sponsored the 11th workshop on steelhead management which was attended by 60 fisheries managers, researchers and others from Alaska, Washington, Idaho, Oregon, and British Columbia.

PacFIN and AKFIN Programs—Dave Colpo manages these two programs and is also responsible for crab rationalization, pinnipeds, bird deterrents, the West Coast Groundfish Observer Program, and the Southern California Bight Hook and Line

Cooperative Research effort. PacFIN has a new program manager in Seattle, and a new server housing the database has been installed. The AKFIN office continues to provide information to the North Pacific Council. The Commission is the economic data collection audit entity for the crab rationalization program which allocates Bering Sea/Aleutian Island crab resources among harvesters, processors and coastal communities. In these 1998 crab fisheries, there were 218 catcher vessels; now there are 85. In 1998, there were 13 active shoreside processors; now there are 11. In 1998, there were 12 active floating processors; now there are three.

Dave has also been working on an electronic fish ticket and logbook process and is testing both for implementation. The Commission has also received funding to develop a West Coast program for tori or streamer lines—bird deterrent devices that help minimize seabird bycatch. The Alaska tori line program continues to be successful. The California Ocean Protection Council has offered the Commission \$250,000 to hire an individual to coordinate cooperative research in California and if successful, ultimately, it will cover the West Coast.

Pam Kahut, the Commission's fiscal manager, and her staff continue to manage the Commission's financial and contract operations in addition to overseeing the distribution of salmon disaster program funds. The Commission completed distribution of \$60 million to California and Oregon for the Klamath River Fall Chinook Salmon Disaster. In Oregon, \$19 million was paid to 498 fishermen; \$800,000 to 38 wholesalers and processors; \$2 million to 39 businesses; a little over \$1 million to 38 commercial charters; and over \$1 million to businesses in the Klamath River.

On September 17, NOAA announced its award of funding to the Commission for the 2008 Sacramento River Salmon Disaster. On September 16, the Commission mailed 2,246 applications to fishermen, 300 to wholesalers, 513 to charter boat owners and 575 to fishing guides who operated on the Sacramento River. Checks will be mailed beginning October 1, based on receipt of completed applications.

The Commission has also been asked to handle a disaster program in Hawaii for fishermen who have been displaced by President Bush's marine mammal protection declaration. NMFS is in the process of writing regulations for that program.

In sum, 2007 was a good year, and the Commission looks forward to the years ahead as the Commission helps managers and fishermen meet the challenges facing our marine fisheries.

PACIFIC STATES MARINE FISHERIES COMMISSION ANNUAL BUSINESS MEETING SUMMARY

September 24, 2008

The 61st Annual Meeting of the Pacific States Marine Fisheries Commission was held on September 21-24, 2008, in Sun Valley, Idaho. Sharon Kiefer, served as Chairperson on behalf of the State of Idaho and welcomed everyone to Sun Valley. Present at the meeting were:

Alaska	Sue Aspelund, Alaska Department of Fish and Game Bryce Edgmon, Alaska House of Representatives Stephanie Madsen, Public Member
California	LB Boydstun, Public Member Thomas Harman, California State Senator John McCamman, California Department of Fish and Game
Idaho	Sharon Kiefer, Idaho Department of Fish and Game Joe Stegner, Idaho State Senator
Oregon	Ed Bowles, Oregon Department of Fish and Wildlife Paul Heikkila, Public Member
Washington	Phil Anderson, Washington Department of Fish and Wildlife Brian Blake, Washington State Representative Harriet Spanel, Washington State Senator

The September 24th business meeting was called to order at 7:16 a.m. During the meeting, the Commission made decisions on the following issues:

California Issue 4: Retirement of David Starr Jordan Research Vessel

The Pacific States Marine Fisheries Commission (PSMFC) strongly encourages the National Oceanic and Atmospheric Administration (NOAA) to provide a replacement vessel to be located on the West Coast before the research vessel, David Starr Jordan, is retired.

The proposal was adopted unanimously by the Commission.

Idaho Issue 1: Aquatic Invasive Species

PSMFC directs the staff to send a letter to the Federal Columbia River Power System action agencies, including the Corps of Engineers and the Bureau of Reclamation, encouraging them to conduct aquatic invasive species detection and response planning for the dams and associated fish passage infrastructure.

The proposal was adopted unanimously by the Commission.

Oregon Issue 2: Reaffirm 2007 Support for National Angler Registry Exemption

PSMFC reaffirms its 2007 support for the National Saltwater Angler Registry Program exemption for the West Coast states and Idaho, including the commitment to remain engaged in a state/federal/consultant process to identify gaps in existing programs and secure necessary funding.

The proposal was adopted unanimously by the Commission.

Washington Issue 1: National Standard 1

PSMFC supports the North Pacific and Pacific Fishery Management Councils' positions to simplify the proposed rule pertaining to National Standard 1 (which covers annual catch limits (ACL), annual catch target, and accountability measures) and the flexibility to set ACLs for salmon.

The proposal was adopted unanimously by the Commission.

Washington Issue 2: National Marine Sanctuary Act

PSMFC supports the rights of individual states, subject to federal sanctuary management within their jurisdiction, to manage all resources and activities within the sanctuary.

The proposal was adopted by the Commission with Idaho abstaining. The Commission further directed the staff to wordsmith the language regarding the states' ability to manage their own lands.

Washington Issue 3: Mitchell Act

PSMFC supports full funding of the Mitchell Act hatcheries facilities, including production facilities, monitoring and evaluation, screening and passage.

The proposal was adopted unanimously by the Commission.

Washington Issue 4: Tri-State Dungeness Crab Committee

PSMFC supports the Tri-State Dungeness Crab Committee process.

The proposal was adopted unanimously by the Commission.

Washington Issue 5: States' Jurisdiction

PSMFC supports using its lobbying efforts to restore the pre-2005 state jurisdiction in the siting of liquefied natural gas or other energy facilities.

The proposal was adopted by the Commission with Idaho abstaining.

Washington Issue 6: Aquatic Nuisance Species Funding

PSMFC will continue to seek full funding for NOAA's invasive species program.

The proposal was adopted unanimously by the Commission.

Alaska Issue 1: Appropriations

PSMFC reconfirms its desire to have its Washington, D.C. representatives monitor and report periodically on appropriations necessary to implement the Pacific Salmon Treaty.

The proposal was adopted unanimously by the Commission with the understanding that such funding should not adversely affect California anadromous fish funding.

Alaska Issue 2: Aquaculture

PSMFC reaffirms its support for the states' ability to "opt-in" to offshore aquaculture by time, area, species, and/or gear and extending it to the full Exclusive Economic Zone (EEZ).

The proposal was adopted unanimously by the Commission.

California Issue 1: Salmon Disaster Relief Funds

PSMFC strongly encourages NOAA Fisheries and the Administration to release the remaining Congressionally appropriated \$70 million out of the \$170 million total appropriated for Salmon Emergency Funding. It is anticipated that claims for funding from this source will exceed the authorized amount.

The proposal was adopted unanimously by the Commission.

Oregon Issue 3: Near Shore Funding

PSMFC shall identify sources of new funding for near shore research and habitat mapping, utilizing local fleets as feasible, to conduct this work.

The proposal was adopted unanimously by the Commission.

Fish Stock Rebuilding – Submitted by Oregon

PSMFC recognizes that a variety of fisheries are conducted in its member states, often targeting the same stocks. PSMFC believes that problems with stock abundance cannot be resolved simply by eliminating fisheries as this approach does not address underlying issues of habitat restoration, hatchery reform, natural cycles, aquaculture practices, and other potential constraining factors. Fisheries managers should take a comprehensive approach to fish stock rebuilding which includes equitable treatment of commercial, sport, and tribal fisheries. Truly sustainable management should not only protect the resource for future generations, but also respect the rights and cultural values of all user groups.

After much discussion of the proposal and several proposed amendments, the proposal was withdrawn by the State of Oregon.

Alaska Issue 3: Pacific Coastal Salmon Recovery Fund

PSMFC recognizes the significant contributions of the Pacific Coast Salmon Recovery Fund (PCSRF) in promoting salmon recovery and sustainability in California, Oregon, Washington, Idaho and Alaska. PSMFC urges NMFS and Congress to provide enhanced PCSRF funding in future budgets. The Commission members asked that staff facilitate further discussion among the states on including criteria that places priority on funding for recovery plans and sustainable and viable fisheries.

The proposal was adopted unanimously by the Commission.

Alaska Issue 4: Ocean Energy

In order to keep fisheries management agencies informed on meetings, processes and developments in ocean energy issues by the Federal Energy Regulatory Commission and others, PSMFC will act as an electronic clearing house for information provided by the states to help with coordination and information sharing among the states. Commission members asked staff to wordsmith this proposal as appropriate.

The proposal was adopted unanimously by the Commission.

California Issue 2: NOAA Salmonid Recovery Plans

Given the near-term release of recovery plans by NOAA Fisheries for several West Coast runs of salmon and steelhead, a complete profile and plan has been developed for the recovery of West Coast salmon and steelhead stocks essential to the long-term survival of an economically and culturally important industry. PSMFC will facilitate coordination among the states on recovery plans and will pursue funding for implementation of those recovery plans, consistent with any priorities identified by the states.

The proposal was adopted unanimously by the Commission.

Oregon Issue 4: Halibut Apportionment

PSMFC encourages that the International Pacific Halibut Commission's decisions on apportionment methodologies take into account the relatively low amount of harvest in Area 2A and the high economic impact to affected communities, and encourages that alternative apportionment methods specific to Area 2A should be explored.

After much discussion about this matter being essentially an allocation issue not appropriate for PSMFC involvement, the State of Oregon withdrew the proposal.

Having addressed all proposals, Chairperson Kiefer adjourned the meeting at 9:01 a.m. She announced that the 2009 Annual Meeting will be held at the Grand Hyatt Hotel in Seattle, Washington.

ANNUAL AWARD RECIPIENTS

The Commission's 2008 Award for outstanding contributions in support of Pacific coastal marine fisheries resources was presented to



**Lower Snake River Compensation Plan
US Fish and Wildlife Service
Pacific Region**

It gives the Pacific States Marine Fisheries Commission great pleasure to recognize the contributions of **the Lower Snake River Compensation Plan** with this award for 2008.

ALASKA FISHERIES INFORMATION NETWORK



The **Alaska Fisheries Information Network (AKFIN)** provides a framework that consolidates and supports the collection, processing, analysis, and reporting of a variety of information important for management of North Pacific fisheries. Funding is provided by an annual grant award from National Marine Fisheries Service (NMFS) to the Pacific States Marine Fisheries Commission. These funds support an AKFIN Support Center (AKFIN-SC) and an annual subcontract with the Alaska Department of Fish and Game (ADFG) for related tasks.

The AKFIN-SC is a cooperative data program that maintains a fisheries information system composed of state and federal data for Alaska fisheries. Information is aggregated from the ADFG Division of Commercial Fisheries, Commercial Fisheries Entry Commission (CFEC), NMFS Alaska Region, Alaska Fisheries Science Center, North Pacific Fishery Management Council (NPFMC), and PSMFC.

A summary of work completed by the AKFIN-SC in 2008:

- **NPFMC Comprehensive Datasets** – The COMPREHENSIVE datasets are a set of views and tables that are generated using a specific compilation of base data. Supplemental or auxiliary data from the agencies and AKFIN-built data sources combined with database logic have been incorporated to further define the records and associated entities. Base source data and the agencies that provide them include:
 - Fish ticket, Annual processor and operations data from the Alaska Department of Fish and Game (ADF&G)
 - Weekly production, prohibited species, Alaska groundfish observer, and catch accounting data from the National Marine Fisheries Service, Alaska Regional Office (AKR)
 - Auxiliary data and logic from the North Pacific Fishery Management Council (NPFMC)
 - Pricing and auxiliary data from the Alaska Fisheries Science Center (AFSC),
 - Supplemented fish ticket data from the Commercial Fisheries Entry Commission (CFEC)
 - Halibut landings data from the International Pacific Halibut Commission (IPHC).

- **Fisheries of the U.S.** - The 2007 FUS report suite is a series of views and tables provided to the NMFS Headquarters. The data submitted provides the Alaska feed that is compiled into a larger process for reporting on national fisheries statistics. Six sources are provided to include: AK Landings by Distance from Shore, AK Landings by Disposition, AK Landings by Port, Vessel Licensing Data, Halibut by State, and Kodiak Fishmeal Data. This data product is provided on a yearly basis.

- **PacFIN Data feed** - The PacFIN data feed details in season groundfish data for the state and federal systems. Three data feeds are provided on a monthly basis, Summary data for shorebased plants based on ADFG data, detailed data for shore-based plants (for use in identifying confidential records), and summary data for at-sea processors based on NMFS catch accounting data. This data product is provided on a monthly basis. Results from the data feeds can be viewed at <http://www.psmfc.org/pacfin/npfmc.html>.

- **Economic Data Report (EDR) Data Project** - Worked on and completed several projects in support of the Economic Data Reporting system.
 - EDR Peer Review
 - Link Fish Ticket Data to EDR data
 - Link processor annual report data to EDR data
 - Import Catcher/processor Data
 - Develop data encryption techniques to ensure confidentiality
 - Import Pots Registration and Observer Data with link to EDR Data
 - Amendment 80 EDR database planning and development

- Develop fillable PDF form
- Develop EDR database Metrics

• **Various Value-added NPFMC Data Submissions -**

- Data for Crab 3-year Review: Several summaries of 2005 – 2007 ADF&G fish ticket and NMFS groundfish data compiled to review activities of those harvesting and processing entities affected by the crab rationalization program
- Rewrite Structured Query Language (SQL) queries from AKR to help council reconcile against online American Fisheries Act (AFA) coop reports
- Reconcile list of AFA harvesting vessels and merge data for an analysis concerning activity and eligibility
- Develop dataset of address of permit holders from Fish Tickets
- Modify AKFIN LLP view logic to analyze impact of duplicate records

AQUATIC NUISANCE SPECIES



Highlights in 2008, for the Pacific States Marine Fisheries Commission's **Aquatic Nuisance Species (ANS) Program** include:

- 1.**The PSMFC and USFWS are leading the effort to develop a Columbia River Basin rapid response plan for zebra and quagga mussels. The purpose of the Plan, entitled *Columbia River Basin Interagency Invasive Species Response Plan: Zebra Mussels and Other Dreissenid Species* is to coordinate a rapid, effective, and efficient interagency response in order to delineate, contain, and when feasible, eradicate zebra, quagga, and other dreissenid mussel populations if they are introduced in CRB waters. The Plan recognizes that a dreissenid invasion is an environmental emergency and any hope of containment necessitates fast action. The provisions of this Plan are intended to enhance agency coordination beginning with the discovery of an infestation by implementing containment and control efforts as soon as an infestation is discovered. The plan was completed in October 2008 and signed by the States of Oregon, Washington, Idaho, Montana, the USFWS and Columbia River Inter-Tribal Fish Commission. The latest version of the plan can be viewed at <http://100thmeridian.org/ColumbiaRT.asp>.
- 2.**In October 2008, the Pacific States Marine Fisheries Commission and U.S. Fish and Wildlife Service, in collaboration with the 100th Meridian Initiative Columbia River Basin Team, held a second “table-top” an exercise in Portland, Oregon to evaluate the *Columbia River Basin Interagency Invasive Species Response Plan: Zebra Mussels and other Dreissenid Species*. The focus of this exercise was on the pathway management components of the Plan – particularly actions needed to prevent secondary spread of an incipient mussel introduction via commercial and recreational vessel traffic. This focus reflects a new strategy developed by the 100TH Meridian Initiative Columbia Basin Team that identifies a set of training objectives to be achieved over a five year exercise cycle. The 2008 exercise was divided into two parts, one for the MAC Group, and the other for the Coordination and Support Staff. Each group received approximately two hours of review on the Plan and associated organizational structures.
- 3.**Zebra and quagga mussels are spread on trailered watercraft moving from an infested to uninfested waterways. For the past three years, the PSMFC has been providing training for boating law enforcement personnel and others so that they can successfully intercept, inspect, identify, contain and decontaminate trailered watercraft suspected of carrying zebra mussels. In 2008 PSMFC led trainings were conducted throughout the Western United States. The program has now trained nearly 1500 individuals from 80 agencies in 11 western states. Go to <http://www.aquaticnuisance.org/wit.php> for further information on this program.
- 4.**In 2008, the PSMFC released the video “Don’t Move a Mussel” (funded by the USFWS). It provides the viewer with background information on quagga and zebra mussels, including origins, distribution, biology and transport vectors and a detailed assessment of the impacts they can have on the economy, ecology and culture as told through the eyes of industry representatives. We have distributed over 2000 copies of the video in past eight months and it remains in high demand.
- 5.**Providing administrative support and staffing for numerous ANS interjurisdictional efforts, including the Columbia and Missouri River Basin 100th Meridian Initiative Groups; the Pacific Ballast Water Group; Green Crab Technical Group; and continuing to provide ANS program support for the states of Idaho, Washington, Oregon and Montana.
- 6.**Conducting education and outreach work focusing on zebra mussels, mitten crab and other species in the Missouri and Columbia River basins and California. Activities included distributing educational materials at sportsmen’s shows, boat ramps, marinas, schools, etc., as well as in the print and electronic media.
- 7.**Continuing to provide support for monitoring of veliger and adult zebra mussels (Portland State University, Montana Department of Fish, Wildlife, and Parks), green crab (Oregon State University, Smithsonian Environmental Research Center, University of California, Davis) and Atlantic salmon (Washington Department of Fish and Wildlife).

ECONOMICS FISHERIES DATA PROGRAM/ ALEUTIAN ISLANDS CRAB ECONOMICS PROJECT



The **Fisheries Economics Data Program (EFIN)** is a cooperative data collection effort to address the needs of fisheries managers and industry for economic and socio-economic information on the West Coast and in Alaska. This project is being conducted by the Pacific States Marine Fisheries Commission as part of a cooperative agreement with the National Marine Fisheries Service and with the help of the Pacific and North Pacific Fishery Management Councils. The goal is to provide reliable and timely data to assist with the monitoring and measuring of the economic performance of the fishing industry and communities of West Coast and Alaska fisheries.

In 2008, the EFIN staff:

- **Technical Workshop on Economic Data and Analysis of Marine Reserves:** EFIN staff represented the Commission at a two-day conference to assess the availability of economic data as well as the data needs for analyses of Marine Reserves. This meeting was chaired by Dr. Susan Hanna at the Hatfield Marine Science Center in Newport, OR. The EFIN Program Manager presented information on the status of data in PacFIN and from West Coast Cost and Earning surveys conducted over the last few years.
- A report from this meeting will serve as the basis of a Scientific and Technical Advisory Committee (STAC) report to Ocean Policy Advisory Council (OPAC) on economic questions relevant to the size, siting, and management of marine reserves, the existence and adequacy of economic data to assess the economic impacts of alternative marine reserve configurations (size and location) in Oregon, economic data gaps, and appropriate analytical methodology.
- **FIS meetings:** EFIN was active on the Fisheries Information System (FIS) Governance committee as well as the Electronic Reporting Professional Specialty Group representing the Commission and the member States. Funding was secured for a number of PSMFC and State projects through FIS.
- **2008 Marine Fuel Price Report/Information:** EFIN staff continued the collection of Input Cost information relevant to harvesting and processing operations. Of particular value is the Monthly Fuel Price Report, an ongoing data collection program started in January 1999. Fuel is the second largest single variable expense, after labor, paid by harvesting vessels, estimated at 10-15% of operating expenses. This project tracks the after-tax cost of #2 Marine diesel fuel at ports from California to Alaska. Summary reports, with monthly prices by region, are available from the EFIN website or EFIN staff. These reports are available from 1999 to the present. Continued to collect data and update the EFIN web page. A report covering 2006-2008 was created and is available at <http://www.psmfc.org/efin/docs/2008FuelPriceReport.pdf>.

Web Page Changes/Updates:

- **Secondary Data Reporting:** Reworked reporting of several of the secondary data sets based on users comments. These included Gross Domestic Product (GDP), Consumer Price Index (CPI), Producer Price Index (PPI) and Employment Cost Index (ECI).
- **Tri-State Crab Website Maintenance:** Archived previous year's website and created a new website for the 2008-2009 season that was updated with reports from California, Washington and Oregon.

Miscellaneous Tasks:

- **West Coast Electronic Fish Tickets:** In 2008 EFIN staff completed their second year of electronic fish ticket data collection for the whiting fishery. A small number of non-whiting fish buyers have also been submitting tickets electronically.
- **Alaska Tori/Streamer Bird Deterrent Lines:** EFIN staff continues to monitor the building and shipping of Tori/Streamer lines.

- **Alaska Crab Rationalization Program:** Pacific States Marine Fisheries Commission (PSMFC) functions as the Independent Third Party Data Collection Agent (ITPDCA) for the Bering Sea/Aleutian Islands (BSAI) Crab Rationalization Program. The purpose of the economic data collection is to aid the North Pacific Fishery Management Council (NPFMC) and National Marine Fisheries Service (NMFS) in assessing the success of this Program and developing amendments necessary to mitigate any unintended consequences. Specifically, the data will be used to examine two aspects of the program: 1) the distribution of benefits between harvesters and processors arising under the harvest share/processor share allocations and arbitration system, and b) the distribution of landings of different harvest share types.
- **The North Pacific Fisheries Management Council (NPFMC)** is interested in ensuring that it will be able to adequately assess the impact of the program on affected parties, which includes harvesters, processors and communities. Existing data collection programs have not provided the information required to understand the economic performance of crab fishermen, let alone to determine how this performance has changed after rationalization or what aspects of these changes are specifically attributable to crab rationalization. This data collection program will substantially reduce the types of analytical difficulties that were encountered in the past when attempting to examine the effects of the halibut/sablefish Individual Fishing Quota (IFQ) program and the American Fisheries Act.
- There are two variations of **Economic Data Reports (EDRs)**, an Historic EDR and an Annual EDR. The first requires submission of historical-based economic data from 1998, 2001 and 2004. Historical EDRs capture pre-Program implementation data for comparison to the economics of harvesting and processing before and after Program implementation. The annual EDR captures economic data on an annual basis at the conclusion of each calendar year's crab fisheries. Historical EDRs were collected in June and July 2005, the first Annual EDRs were collected in 2006 for the 2005 crab fisheries, 2007 for the 2006 crab fisheries and 2008 for the 2007 year. Participation in the data collection program is mandatory for all participants in the BSAI crab fisheries. Any owner or leaseholder of a vessel or plant that harvested or processed crab in any of the Bering Sea and Aleutian Islands crab fisheries during the years 1998, 2001, or 2004 were required to submit an historical report for all three years.
- EDRs were mailed to crab processing plants and vessels, collected, tracked, reported to RAM for permit and quota issuance, and reviewed for completeness. The EDR data was entered, archived and submitted to NMFS for analysis. PSMFC hired Aldrich Kilbride and Tatone LLC to conduct random and outlier audits on all historic and annual EDRs received to date. These audits were conducted to verify the quality of data collected in the EDRs as well as to provide guidance on improving future EDRs. This process is repeated every year for the previous year's fishery.
- AKFIN built a relational database to house data, standardized variables and conducted metric analysis to help describe data. Reports and Forms are being built to allow permitted researchers access to the data.

PACIFIC FISHERIES INFORMATION NETWORK (PACFIN)



The **Pacific Fisheries Information Network (PacFIN)** is the nation's first regional fisheries data network. Funded by a grant from the National Marine Fisheries Service (NMFS), PacFIN is a joint federal and state project focused on fisheries data collection and information management. PacFIN provides timely and accurate data to aid effective management of fisheries and fishery resources.

In 2008, the PacFIN Office processed 432 data feeds from eight data sources and responded to at least 108 requests-for-information. There were 619,313 visits to the PacFIN website for an average of 51,609 visits per month. Various selections of standard PacFIN reports were generated weekly or monthly and uploaded to the PSMFC and PacFIN website.

Following are highlights of PacFIN central office's activities in 2008:

Quota Species Monitoring (QSM) Subsystem

Code changes were made to handle changes to the source data from the NORPAC (North Pacific Database Program) database for the At-Sea Whiting fishery.

Internal System Upgrades

Internal System Upgrades related to maintaining the success of current production applications were performed. These activities are supportive in nature and included database performance improvements, new production automation and retrieval scripts, new documentation and metadata.

System Server Migration

PacFIN and PSMFC Headquarters (HQ) staff completed the migration of the central database to the PSMFC "prowfish" server, a Linux OS and Oracle database platform maintained in the PSMFC Portland office. All PacFIN user schema, Oracle objects and Unix files were imported to the prowfish server. User account system settings were modified for the Linux OS and Oracle 10g environments. All production activity is now running on the prowfish server. The PacFIN office, with support from PSMFC HQ, is now managing the Linux OS, and Oracle database environment, including backup and maintenance. PacFIN staff also worked with federal data sources to implement data acquisition systems to replace existing database links. This migration project was a major undertaking, involving a number of PSMFC staff, and the support of NMFS/OFIS staff. Thanks to Gary Shaw (Director, Office of Fisheries Information System (OFIS)) and Kathleen Hurlbert (System Administrator/Oracle DBA - OFIS) for their efforts to assist PacFIN in making the migration as smooth as possible.

Limited Entry Permit Data Acquisition

A new data acquisition protocol was developed in coordination with the NWR Limited Entry Permits (LEP) office in order to reinstate a weekly refresh of federal LEP data in the PacFIN database. The new protocol was developed to replace the select and insert data capture via database link following the migration of the LEP database to a new SQL Server environment.

PacFIN User Support

PacFIN staff spent a considerable amount of time working with clients making the move to the new prowfish server environment and to make the new Linux environmental changes as transparent to the end user as possible.

LE Trawl Permit Data Requests

PacFIN staff worked with representatives from Washington Department of Fish and Wildlife (WDFW), Oregon Department of Fish and Wildlife (ODFW), California Department of Fish and Game (CDFG), Pacific Fishery Management Council (PFMC) and NMFS/Northwest Region to develop retrieval programs to allow state agency staff to respond to requests from individual Limited Entry Trawl permit holders for historical catch by permit, using data from PacFIN. These requests relate to the ongoing PFMC effort to develop an Individual Trawl Quota (ITQ) system for the Limited Entry Trawl fleet.

Workstation and networking upgrades

PSMFC contractor Tech Heads was onsite to upgrade all three PacFIN central office workstations, adding memory, new software and software upgrades. New external drives were added for automated daily backups. In addition, the PacFIN central office was moved to a new network domain, independent of the federal "AFSC" domain network and protected by an internal firewall. All of these changes have improved flexibility and access to desktop support from the PSMFC HQ office in Portland.

Internal address/phone book database

Client phone and address information were imported into a newly developed MS-Access database. This project included some research to revise or remove older entries.

Staff Changes

In June, the Analyst/Programmer left the PacFIN office to pursue a new career opportunity. A recruiting process for both an Analyst/Programmer and Data Management Specialist was conducted during this reporting cycle and culminated with interviews of the top 10 candidates in August. Jean Olson joined the PacFIN central office on September 16, 2008, filling the Data Management Specialist position. The recruiting process did not facilitate the hiring of an Analyst Programmer as hoped. In lieu of a full time programmer, an Oracle Developer frequently used by the PacFIN project in the past was put on contract. The search for a staff Analyst/Programmer will continue into the next reporting cycle.

Training

The Data Management Specialist completed a 5 day Introduction to SQL course provided by Oracle Corporation as well as online courses for an introduction to the Linux OS.

Meetings and Seminars

The Program Manager attended the PSMFC Fiscal Departments Workshops, March 13-14, 2008 at PSMFC HQ in Portland.

The Data Management Specialist and the Program Manager attended the Pacific Coast Fisheries Data Committee (PCFDC) meeting, November 12-13, 2008 in Portland.

The PacFIN office hosted multiple meetings with NMFS/HQ staff during this reporting period to discuss ways to enhance and improve reporting systems for various federal data projects, including the federal vessel buyback accounting program, FIS, and various federal reporting requirements, including the Fisheries of the U.S. (FUS) annual report.

PacFIN—California Port Sampling

The California Sampling project is staffed by the Pacific States Marine Fisheries Commission. Similar duties are completed in Oregon and Washington by state staffs using PacFIN award funds. The California Port Sampling effort employs a data manager, a programmer analyst, two supervisors, and nine port samplers.

The data manager performs data quality assurance and provides the programmer analyst with the monthly PacFIN data files.

The programmer analyst reviews and revises existing landings data quality reports and ran 2007 data quality landing reports; made changes to the 50, 60, 75 and 100 fathom southern California RCA lines as requested by fishermen and provided data extracts to Monterey GIS staff for mapping; created a PacFIN program to report trawl groundfish landings by vessel and permit for evaluation of TIQ quota pounds; processed and matched 2007 and 2008 trawl logs; submitted semi-monthly landings updates and monthly updates of vessel, fish dealer and species comp data to PacFIN; and created landings summaries of 2008 California salmon to support a request for federal disaster relief for salmon fishermen.

The supervisors direct the port samplers and data manager, provide data support for the California Department of Fish and Game (CDFG) Groundfish Management Team representative, National Marine Fisheries Service, PacFIN, and Pacific States Marine Fisheries Commission and deliver Quota Species Monitoring and Biological Data System data to PacFIN. They assisted in multi-agency planning for the 2008 Pacific Whiting seasons and exempted fishing permits. As supervisors, they review direct samplers' sampling effort and coordinated editing and data entry of Trawl logs. They make weekly phone calls to keep in touch and conduct quarterly site visits with employees. They interview, hire, and complete all personnel paperwork and budgets as necessary.

The port samplers, located in Crescent City, Eureka, Fort Bragg, Bodega Bay, San Francisco, Monterey, Morro Bay, Santa Barbara and Los Alamitos, collect species composition and biological samples from rockfish, flatfish, roundfish and elasmobranchs market categories. In addition to their field duties, port samplers are responsible for data entering their sample data every month in to a web-based database. They edit landing receipts for completeness and send them to the CDFG Marine Fisheries Statistical Unit for data entry. They review receipts for quota species which they submit to the Central Supervisor. Finally, they edit and key the Trawl logs submitted by fisherman into the CDFG Commercial Fisheries Information System ORACLE database.

PIT TAG INFORMATION SYSTEM



PIT Tag Information System
Columbia Basin | ptagis.org

The Columbia River PIT Tag Information System (PTAGIS)

is a data collection, distribution and coordination project. The project marked over 1,495,000 juvenile salmonids with passive integrated transponder (PIT) tags for the 2007 out-migration through the Columbia and Snake River systems, compared to over 1,991,000 in 2006 (Tables 1 & 2). In 2007, over 626,000 tagged fish were detected (Table 3). These fish

generated over 8,085,000 interrogation records (Table 4). One fish can generate many interrogation records, depending upon how many interrogation sites or monitors 'saw' the fish.

The Columbia River PIT Tag Information System (PTAGIS) is a data collection, distribution and coordination project. Over 2.47 million juvenile salmonids were marked with passive integrated transponder (PIT) tags for the 2008 out-migration through the Columbia and Snake River systems, compared to 1.52 million fish tagged for the 2007 migration year (Tables 1 & 2). In 2008, over 964,000 unique tagged fish were detected (Table 3). These fish generated over 12 million interrogation records (Table 4). One fish can generate many interrogation records as it passes through multiple PIT tag antennas at one or more detection sites.

The PTAGIS project supported 17 separate Separation by Code projects for 10 separate agencies in 2008. PTAGIS managed a combined total of more than 2.1 million PIT tags in the look-up databases at all eight of the Separation by Code sites in the Columbia Basin.

TABLE 1

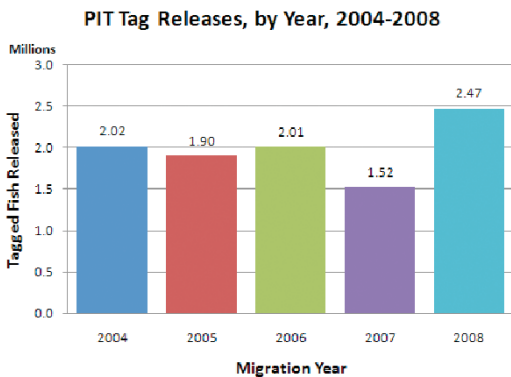


TABLE 2

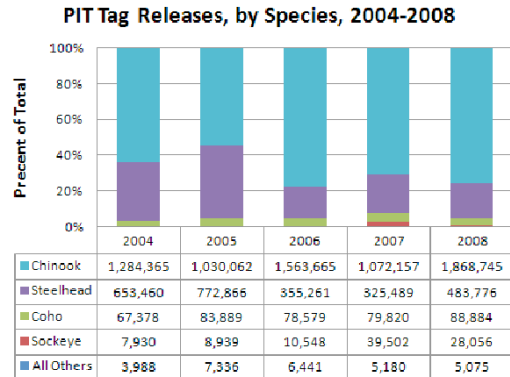


TABLE 3

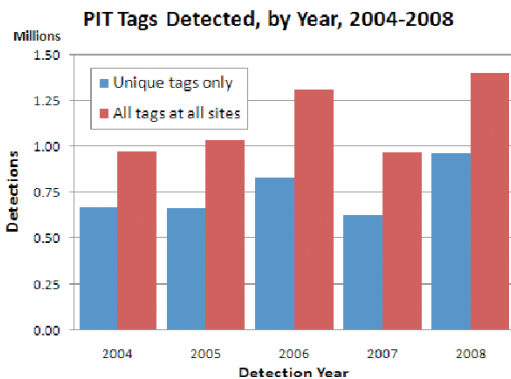
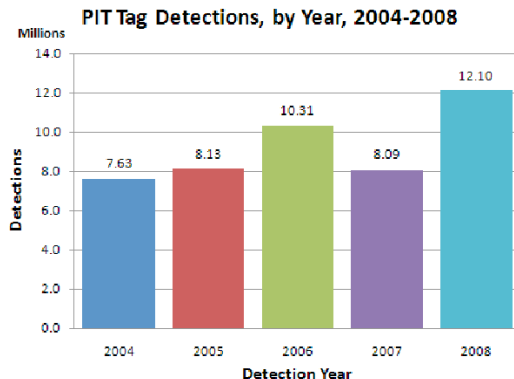


TABLE 4



RECREATIONAL FISHERIES INFORMATION NETWORK (RECFIN)



The **Recreational Fisheries Information Network (RecFIN)** is a cooperative effort between the state fishery agencies in Washington, Oregon, and California, the Pacific States Marine Fisheries Commission (PSMFC), and National Marine Fisheries Service (NMFS). The four goals of RecFIN are as follows:

- Develop and implement a State/Federal cooperative program for a coast-wide marine recreational fisheries data system;
- Coordinate collection, management, and dissemination of Pacific coast marine recreational fishery data;
- Provide the data in a central location on a timely basis in the format needed to support state and federal work on Pacific marine recreational fisheries; and
- Reduce and avoid duplication of data collection efforts between RecFIN members.

The database contains recreational fishery data for the years 1980-89 and 1993 to the present. The primary source of data in the RecFIN database comes from the following five state sampling programs: Oregon: Oregon Recreational Boat Survey (ORBS) and the Oregon Shore and Estuary Boats Survey (SEB); Washington: Washington Ocean Sampling Program (OSP) and the Washington Puget Sound Boat Survey; California: California Recreational Fisheries Survey (CRFS). These programs are funded by NMFS along with state agency funding in all three states. The survey is spread out over about 800 fishing sites coast-wide in the three states. Of these sites, about 57% are in California, 10% in Oregon and 33% in Washington state.

In 2008:

The state of California and PSMFC conducted the CRFS in California in 2008. Over 100,000 angler trips were sampled during the 12 month sampling program. PSMFC provided partial funding for sampling in Oregon and Washington through RecFIN. Sampling was conducted by the states. A total of about 40% of all ocean boat angler trips were sampled in Oregon in 2008, where sampling occurred from March through October in 2008.

The state of Washington conducted their Ocean Boat Survey and the Puget Sound Boat Survey in 2008. Sampling occurred throughout the year in Puget Sound and from April – early October on the coast. Sampling rates were at about 40% of all ocean boat trips. Two states utilize their angler license frame for estimation of fishing effort in certain modes of fishing. These include Puget Sound Boat trips in Washington and shore and private access and night boat effort in California. All other modes of fishing in the three states are estimated from direct field counts.

All catch and effort information for each sampling month from the various surveys are loaded into the RecFIN database maintained at PSMFC with a one-month lag time. Access is available to the catch and effort information for all three states on the PSMFC website or at: www.recfin.org. Detailed explanations of the sampling conducted, sampling methodology and estimation statistics of the various sampling programs along with catch and effort estimates by month are available on the RecFIN website [www.recfin.org]. During 2009, the RecFIN website will undergo revisions to provide easier access to catch and effort data and include updates to match recent management changes by the states and the Pacific Fishery Management Council.

REGIONAL MARK PROCESSING CENTER (RMPC)



REGIONAL MARK PROCESSING CENTER

The **Regional Mark Processing Center (RMPC)** serves federal, state, tribal and private fisheries agencies of the entire Pacific coast by processing and exchanging coded wire tag (CWT) release, recovery

and associated catch sample information. The RMPC adopts new data formats and implements software, hardware and personnel enhancements, in order to meet evolving CWT informational needs by the Pacific Salmon Commission and other agencies, in support of the Pacific Salmon Treaty. In addition, the RMPC has the responsibility of serving as the single United States database to exchange CWT information with Canada in Pacific Salmon Commission format on a regular basis. The RMPC maintains the U.S. database and coordinates the acquisition and validation of these data from the various agencies. Over 50 million coded wire tagged fish are released Pacific coast-wide every year, with approximately 1,200 different coded wire tag codes.

Regional Coordination

RMPC staff participated in Pacific Salmon Commission committees and regional science and management teams to assist with coordinating coded wire tagging activities and providing CWT data. The RMPC continues working closely with Idaho Fish and Game in providing PSMFC staff to work on their hatchery data under a contract with the Lower Snake River Compensation Plan and with Oregon and Washington Departments of Fish and Wildlife to implement the coded wire tag recovery program in sampling sport, commercial and tribal fisheries for salmon and steelhead carrying coded wire tags under a Bonneville Power Administration funded contract. The recovered tags are read and decoded and the information is added to the RMIS database for use by the fish management agencies to make science based decisions regarding numerous populations of salmon and steelhead in the region.

New Database Server Installed

The six year old computer server running the Regional Mark Information System (RMIS) database was replaced. The new server is faster and has more storage capacity, allowing the database to grow as needed. The new server was also connected to the new fiber optic internet connection that PSMFC recently installed, thereby providing faster data access for users.

Data Validation Issues

The CWT data load programs were upgraded to do more rigorous cross-table checks of tag releases in format version 4.0 when validating newly submitted tag recovery datasets. This is an ongoing project as data uploading errors are identified and corrected. The staff worked closely with several agencies to implement improved validation of new data before it is merged with RMIS and to correct historical data already in the database.

Data Integrity Issues

Significant time, again, was spent working with the various data reporting agencies to resolve various inconsistencies found in the CWT data sets. While the number of errors was relatively small, it took considerable effort to resolve the reasons for the errors and to then correct them.

Missing Recovery Data

Lack of freshwater CWT recovery data for certain areas were identified. The RMPC continues to work closely with the responsible agencies to coordinate the filling of those data gaps. Significant progress was made.

Annual Mark Meeting

The 2008 Mark Meeting was hosted by the California Department of Fish and Game and held in Monterey, California. Key issues included discussions and updates on coast-wide mass marking, coded wire tagging and selective fisheries activities. Other issues discussed: use of blank CWT wire, which is identified as “agency only wire”, as a mark, the new Constant Fractional Marking Program in California, PSC Data Sharing Committee activities and the need for a Data Standards Work Group meeting, implementation of the CWT Expert Panel recommendations and the subsequent report on the *Action Plan in Response to CWT Expert Panel Recommendations*.

Data Standards Work Group Meeting

The first work group meeting in four years was held in Portland. The work group agreed to make specific changes to the specifications for RMIS database which will be called version 4.1 by April 2009. This is an important step forward to implement many of the changes that were identified in the past to improve the database.

STREAMNET



Fiscal Year 2008 (FY-08) represented a transitional year for the **StreamNet** regional scale data dissemination project. While the project continued to acquire/update, standardize, georeference and disseminate fish-related data for the state, some tribal and one federal fisheries agencies, it also took on several new initiatives and is anticipating new regional guidance on data needs.

Passage of the Columbia Basin Accords caused an administrative change within the project, separating the work done by the Columbia River Inter-Tribal Fish Commission (CRITFC) out to a separate contract with BPA. This will change the structure of the StreamNet contract but not change the relationship with the StreamNet Library or data developed by CRITFC, and will likely increase the availability of tribal data to StreamNet due to increased funding for tribal data efforts.

Data development emphasis shifted to place highest priority on data that support indicators of fish abundance for the focal species covered in the Status of the Resource (SOTR) report, as requested by the Columbia Basin Fish and Wildlife Authority (CBFWA). We instituted an XML based web service allowing direct access to data from the project database for CBFWA to update the SOTR report.

A primary theme this year was exploring means to speed the flow of data. We had ongoing success in our strategic emphasis on increasing automation of data conversion through development of comprehensive database systems within our partner agencies, as outlined in our Vision and Strategic Plan (ftp://ftp.streamnet.org/pub/streamnet/projman_files/StreamNet_Vision-Strategic_Plan2006.pdf). Agency database systems allow automated conversion of data to our regionally consistent format as well as help agencies meet their own data needs. The Idaho StreamNet project contributed to development of IDFG's Idaho Fish and Wildlife Information System (IFWIS) and successfully tested automatic conversion of data to the regional exchange format. We worked with WDFW to develop draft field data input templates for collection of smolt trap and spawning ground survey data. And, we began collaborating in a project with ODFW and EcoTrust to develop an online data dissemination tool. As these and additional data systems are brought online, we expect to shorten the time needed to annually update data, and plan to free existing staff time to develop additional types of data from our partners.

We initiated another long-term effort to expand data coverage to estimates of productivity and/or data needed to calculate productivity. Initial investigations within our partner agencies indicated that these data are scattered, with some components like age composition of returning fish already being addressed by StreamNet, but others not yet covered. We will continue to determine how available these data are and investigate the feasibility of capturing the estimates and supporting data in the future.

New efforts this year in addition to routine ongoing data development of the standard data sets in StreamNet included an update and new web page for disseminating Protected Areas data, and work with CRITFC to house and disseminate data developed by the Hatchery Scientific Review Group. All database, GIS and web server systems were maintained successfully.

The StreamNet website (www.streamnet.org), the project's primary means of disseminating fish data, was completely redesigned this year to improve the user experience and make locating and acquiring data simpler. A primary goal was to significantly reduce the sequence of steps needed. The new site was in final testing at the end of the year, and will go live in early 2009. Use of the website remained strong, with 941,687 total page views representing 345,855 visits from 123,684 unique visitors. There were 18,797 actual views of tabular datasets from the online query system, plus many interactive map views, not counting downloads of the entire database direct data and information requests.

Significant preparatory work was done to redesign the database query system to improve functionality and speed. We obtained valuable input on functionality of the existing query system and suggestions for improvements from system users by interviewing attendees at the joint Oregon Chapter/Western Division, American Fisheries Society meeting held in Portland this year, where we demonstrated the existing system, and prepared a report on the results (ftp://ftp.streamnet.org/pub/streamnet/projman_files/Report_on_website_use_from_WDAFS-Final.pdf). Redevelopment of the query system based on this accumulated input will begin as soon as the new website is up and functional in 2009.

We initiated contacts with several groups to explore helping them with data development and potential data flow to StreamNet, including groups working on lampreys, green sturgeon, amphibians, and several subspecies of cutthroat trout. We began collaboration with a PSMFC project to develop a database for a status assessment of coastal cutthroat trout. We also began work on separate funding to evaluate database systems for rotary screw trap data in the Central Valley, California, which should also help us in developing similar data in the Northwest.

The project remained active in cooperating with various regional scale collaborations, including ongoing involvement with the Northwest Environmental Data-network, Pacific Northwest Aquatic Monitoring Partnership and CBFWA. Several project participants also participated in the initial meeting and follow up conference call with the Executive Data Summit, which we hope will succeed in outlining regional scale data needs and provide guidance on a regional data management framework.

The largest obstacle encountered during the year was the need to reduce staff time as a result of five years of level funding, as outlined in the statement of work. In the Washington StreamNet project, this resulted in loss of a data technician to work on data development in eastern Washington, and data were obtained only from Washington's lower Columbia subbasins. In the Oregon StreamNet project, the approach to obtaining data was switched to focus on all data for designated focal species on a subbasin by subbasin basis to support the SOTR report. However, data technician time was reduced, resulting in an inability to develop other data, besides those for SOTR focal species, from all subbasins. Late in the fiscal year, one project participant indicated that on a one-time basis they had covered some of their work on other funding, leaving funding available for other work by the rest of the project. Since there was little time remaining, a rescheduling request was approved by the Budget Oversight Group, and in FY-09 we will be able to pick up additional temporary data technicians to capture and update data from those areas missed in FY-08. That will not address the long term staffing issue, however.

StreamNet remains committed to serving the broad needs for fish data from the management agencies at the regional scale and to providing data related services and system development expertise to state and tribal fisheries management agencies. We look forward to future guidance on priorities from the regional executives.

CALIFORNIA DATA AND TECHNICAL ASSISTANCE PROJECTS (CALFISH)



The **California Cooperative Fish and Aquatic Habitat Data Program (CalFish)** website (www.calfish.org), a multi-agency cooperative fisheries information site, was opened to the public in 2004. CalFish is designed to gather, maintain, and disseminate fish and aquatic habitat data and data standards, and provides access to a growing number of fish and aquatic habitat datasets, through both geographical and tabular queries. The data may be viewed and analyzed using an interactive ArcIMS platform, in conjunction with the other datasets available. Many of the following projects have data/ information available through the CalFish site.

The **California Habitat Restoration Project Database (HRPD)** effort continued to maintain and add data for projects funded through the California Anadromous Fish Restoration Grants Program. Work also continued with CALFED, a state/federal partnership conducting restoration efforts in the Central Valley. HRPD data is made available via the CalFish web site.

PSMFC continued to assist the California **Coastal Watershed Planning and Assessment Program** by providing field and technical staff and assistance to conduct stream habitat surveys and prepare watershed assessment plans for both the Northern and Southern coasts.

PSMFC continued work with the California Department of Fish and Game to assist them with the administrative aspects of conducting the **Adaptive Watershed Program**, which facilitates the completion of watershed, riparian, and stream habitat improvement projects to benefit salmon and steelhead streams of coastal California.

Continuing assistance was provided to the California **Ocean Salmon Program** by employing fisheries technicians at various coastal ports to sample commercial salmon fisheries, collect biological data and coded-wire tag information. Data collected are incorporated into the management and season setting for salmon fisheries coastwide.

The **California Passage Assessment Database (PAD)** locates and documents anadromous fish passage "sites" in all California coastal watersheds. Initiated and funded by the California State Coastal Conservancy, and continued by the Fisheries Restoration Grants Program, this multi-agency cooperative effort has led to better information on known (and suspected) fish passage issues, and ultimately the correction of them through prioritized restoration projects and funding. The PAD is available through the CalFish web site.

PSMFC continues to provide technical assistance and field staff for collecting and compiling data on the movement and timing of juvenile Chinook and Coho salmon (and other species) in the **Humboldt Bay Tributary Estuary Sampling Program**.

PSMFC provides biological and technical support to hatchery staff (located at the Warm Springs Hatchery facility) for all spawning and rearing operations at the facility, and conducting biological monitoring of hatching, rearing, planting of fish, and adult returns from the **Russian River Coho Salmon Captive Broodstock Program**. The program produces and releases fish that are fit to survive and reproduce in the wild, in order to produce self-sustaining coho populations.

PSMFC's GIS and Data Specialists assist the CDFG Marine Region with **Marine Nearshore Habitat Data and Technical Assistance**. These positions provide daily technical assistance to staff responsible for the management of California marine species, habitat, and fisheries.

With funding provided by the California Department of Water Resources (CDWR), PSMFC is assisting CDWR and CDFG with the **Feather River Monitoring project**. Work includes data compilation and analysis for the Feather River (and Central Valley).

PSMFC Fisheries Technicians on the **Upper Sacramento Technical Assistance** projects (Upper Sacramento River, Battle, Deer, Mill creeks) continue to assist CDFG with running fish traps, conducting salmon carcass surveys, and collecting biological data in order to estimate escapement, evaluate hatchery supplementation programs in assisting with recovery, and to collect tissue samples that will be used to genetically characterize populations to race.

PSMFC continued work with the California Department of Fish and Game to assist them with the administrative aspects of conducting the **Aquatic Resource Assessment Program**. PSMFC administered contracts for 12 resource assessment projects that were completed (or in progress) statewide, and provided field technicians and research assistants for those projects to collect, compile, and analyze data and research on aquatic species, habitats, and natural communities.

PSMFC provides technical assistance and field staff for the **Coastal Restoration Monitoring and Evaluation** project. Staff monitors pending and completed coastal watershed restoration projects in the North and Central Coast region of California, collects habitat information, and compiles data.

PSMFC's **Southern California Habitat Assistant** identifies habitat restoration projects such as erosion control, removal of fish barriers, and removal of non-native vegetation, in order to improve fish habitat and establish funding for the projects.

PSMFC continues to provide fisheries technicians in Mendocino County to assist in conducting a pilot project designed to develop, test, and implement the sampling scheme and field surveys described in the **CA Coastal Salmonid Monitoring Plan**.

PSMFC assisted in escapement surveys on the **Lower American River** to generate an estimate of spawners and their distribution, and conduct coded-wire tag surveys to accurately estimate occurrence of CWT fish in river and to obtain detailed information on sex and spawning status.

In the **San Joaquin River Basin**, PSMFC assists in water temperature data collection, conducting Stanislaus River Chinook salmon carcass survey, spawning Merced River Hatchery fall-run Chinook salmon, reading coded wire tags, data entry, fish screening, and monitoring entrainment of salmon into water diversions.

PSMFC is working with CDFG to determine the **Age Structure of Central Valley Chinook Salmon Populations** by conducting scale analysis, assisting in the field collection of scales in Chinook escapement surveys, using the aging data in combination with coded-wire tag (CWT) recovery data to reconstruct the size of each returning brood year.

PSMFC Fishery Technicians are working in cooperation with CDFG to remove non-native trout from selected **Mountain Yellow-legged Frog Habitat Restoration** sites in the Sierra Nevada's.

PSMFC assisted in the purchase four Autofish Marking Trailers and provided on-going technical assistance to implement the first phase of the **Central Valley Constant Fractional Marking Program**. The program is responsible for annually coded-wire tagging/adipose fin clipping 25% of the Fall Chinook salmon production in the Central Valley hatcheries.

At the **Coleman National Fish Hatchery**, PSMFC provided seasonal personnel and services to assist the U.S. Fish and Wildlife Service mark and coded-wire tag approximately 1,100,000 juvenile Late-Fall Chinook salmon.

PSMFC provides technical assistance to ongoing **ROV Programs** of the Department of Fish and Game (CDFG) and Marine Applied Research and Exploration (MARE) by collecting and analyzing data on fish abundances and habitat, maintaining and operating equipment, and producing reports which will enable the continued gathering of information to aid fisheries management and monitoring of several nearshore fishes.

PSMFC provided assistance to the **California Steelhead Distribution Review** project to ensure that the statewide steelhead distribution dataset is accurate and complete.

CDFG's **Watershed Restoration Program** uses Fisheries Technicians provided by PSMFC to conduct salmonid surveys, biological sampling, and produce stream reports to determine habitat restoration and enhancement priorities.

PSMFC provides administrative support to facilitate the completion of **Klamath River Adaptive Watershed Improvement Projects**, which includes projects that have an immediate benefit to salmonids in the Klamath River Basin below Iron Gate Dam to the Pacific Ocean.

PSMFC assists in the implementation of the **Heritage and Wild Trout Program** by providing technical staff, expertise, supplies, and support services to assist with conducting high priority native trout resource assessment projects.

PSMFC administrative support assists the **Americorps Watershed Stewards Project** accomplish habitat restoration projects.

Fisheries Technicians from PSMFC are working to eradicate non-native predators and conduct **Habitat Restoration of Mountain Yellow-legged Frogs** and **Lahontan Cutthroat Trout** in lakes and streams in the Sierra Nevada's.

PSMFC is working with CDFG and the Ecosystem Restoration Program to develop a long-term **Comprehensive Central Valley Adult Chinook Salmon Escapement Monitoring Plan** and **Central Valley Steelhead Comprehensive Monitoring Plan** to estimate population status and trends in abundance in a statistically valid manner.

PSMFC is assisting CDFG with the development of a **Marine Research Implementation Plan** with both short-term and long-term perspective that focuses on key research priorities identified by the Department and the Marine Region.

PSMFC is working with the **Yuba County Water Agency** to implement field studies, monitoring, and other projects on the Lower Yuba River, including Rotary Screw Traps, Escapement Surveys, and the operation of the VAKI Riverwatcher Installation.

PSMFC provides personnel, materials, equipment, and services to the **NMFS Klamath Coho Salmon Monitoring** program as they coordinate with other research groups, conduct surveys, and report on data.

Non-California projects (7/1/07-6/30/08):

PSMFC provides technical expert assistance for the development of monitoring and evaluation strategies to support the **NMFS Salmon Recovery Plan** implementation.

PSMFC provides data stewardship services for the **NMFS Habitat Restoration Project Tracking Database**.

In cooperation with the HRPD Program, PSMFC is providing **NMFS Economic Data Assistance** for use in salmon recovery plan development.

PSMFC provides support for an **Idaho Department of Fish and Game (IDFG) Administrative Assistant**.

COOPERATIVE AGEING PROJECT

The **Cooperative Ageing Project Lab** was established to production-age marine groundfish structures and is a collaboration between the NOAA Fisheries and PSMFC. The lab is located in Newport, Oregon, at Northwest Fisheries Science Center (NWFSC) facilities. Otoliths, collected from federal surveys and commercial catch, are the primary structures aged by this lab and are used in direct support to U.S West Coast stock assessments. Age data helps determine the biological attributes of a population such as mortality rate, growth rate, age at maturity, etc. While this lab is primarily a production age-reading lab, there are opportunities on an annual basis to conduct age-related research and assist in NMFS-directed at-sea surveys.

In 2008, Cooperative Ageing Project (CAP) personnel:

- Aged 27,888 otoliths from nine species of U.S. West Coast groundfish, including the rockfish - greenstriped, splitnose, canary, Pacific Ocean perch and darkblotched; the flatfish - Dover sole and petrale sole; the roundfish - Pacific hake and sablefish. This includes all types of ageing; production, double reads for quality control, recalibration, training and research reads.
- Since neither greenstriped rockfish nor splitnose rockfish had been aged by this lab, lab personnel developed an ageing methodology for both.
- Lab personnel completed assigned objectives in a NOAA-led research project that aimed to validate ageing methodology for petrale sole. Lab personnel independently aged otoliths through surface and break and burn techniques. Images were captured and annotated with notes to document current ageing methodology.
- The project now inventories and tracks structures from 69 species of U.S. West Coast groundfish – a 16 percent increase from last year alone.
- Five lab personnel attended the 2008 Western Groundfish Conference in Santa Cruz, California.
- Four lab personnel attended the 2008 Committee of Age Reading Experts meeting held in Nanaimo, BC.
- Lab personnel coordinated and participated in otolith exchanges with the Alaska Department of Fish and Game, Department of Fisheries and Oceans Canada and the Alaska Fisheries Science Center, NOAA Fisheries. The species exchanged were the roundfish Pacific hake and sablefish.
- Continued to add to the otolith image database, which now has over 1,678 images from fish structures (spines, interopercles and otoliths). This is a year-over-year increase of 19 percent.

FISH HABITAT EDUCATION PROGRAM



The PSMFC **Fish Habitat Program** works to protect habitat for salmon and other marine fish species by supporting conservation and restoration activities, promoting essential fish habitat and ecosystem based management policies, and conducting watershed tours. The Commission's habitat efforts in 2008 were funded primarily by the Wallop-Breaux Sport Fish Restoration program managed by USFWS, National Marine Fisheries Service for support of interstate work on marine debris and habitat conservation, and the National Fish and Wildlife Federation for support of gillnet recycling work. This program also coordinates with the Pacific Fishery Management Council's habitat committee, helping to provide the Council with information on habitat concerns affecting managed species and further ecosystem based management considerations.

Highlights of work during 2008 include:

Estuary protection

Two additional salt marshes properties were acquired for conservation on the Yaquina estuary. These 40 acres extend and further buffer the 420 acres of marsh and forest lands acquired last year in McCaffery/Poole Sough area.

Marine Debris Work

Work has begun to re-establish the gillnet recycling program in Alaska, though the wide swings in transportation costs and the recycling market this year has resulted in a decision to delay most work until next year. Efforts will concentrate on Cordova, Dillingham, Kenai, Petersburg, and Naknek. In the meantime, gillnet recycling is continuing in Astoria, Oregon and Seattle and Bellingham, Washington. Webbing as well as lead line can be recycled. Trawl net recycling is underway at the Port of Seattle's Fishermen Terminal with webbing being accepted for free and nets with gear being accepted at a few pennies a pound. Trawl nets brought down from Alaska to Seattle are eligible for the program.

With the assistance of this program, thousands of derelict oyster floats and racks were reused or recycled in 2008 after their removal following a long legal and logistical effort coordinated by Oregon State Police. This derelict gear was scouring the tidal channels at low tide and creating convenient perches for birds and other predators.

This project began working with the West Coast Governor's Agreement on Ocean Health to establish a work plan that will assure removing derelict fishing gear and ocean and land based debris. The plan will help assure effective coordination and communication across Washington, Oregon, and California to support and further effective projects and assure their funding.

Watershed Restoration Support

This project provides administrative and technical assistance and support to help further restoration efforts on Oregon's central coast. It provides support to help the MidCoast Watersheds Council achieve priority work for salmon and watershed health on Oregon's central coast, a key area for the listed coho salmon. The group does about a million dollars of work a year on priority restoration work on a whole basin basis, where possible, informed by limiting factor assessments.

The project also administers a small grant program for the Siuslaw and MidCoast areas to assure that about \$100,000 of state funds can be distributed per biennium to important small projects (under \$10,000) that meet priority basin needs.

PSMFC also continues to support and further the work of the Alsea Stewardship Group, a group that works cooperatively with the U.S. Forest Service and U.S. Bureau of Land Management under stewardship contracting authority. This allows a portion of timber sale receipts (e.g. from thinning and commercial sales) to be retained in the Siuslaw National Forest for priority restoration projects (rather than going into the U.S. general fund). It also allows funds to be used on restoration efforts on surrounding private lands if there is a direct benefit to the forest watershed, fish and other species.

Watershed Tours

PSMFC's watershed tour program is aimed at getting state, county, and city decision makers, funding entities, and restoration project planners together with agency officials and local restoration practitioners to view habitat protection and restoration efforts and highlight needs for continued support for priority projects.

Washington tours, called 'Flying for Fish Habitat', are aerial tours conducted with the assistance of small planes provided by the non-profit group, LightHawk. This year, two watershed flights were conducted in the Nooksak watershed in collaboration with the Whatcom Land Trust and four in the Hood Canal area in collaboration with the Hood Canal Coordinating Council. Flight planning was initiated in cooperation with the San Juan Initiative in preparation of work in 2009 to highlight areas of initiative focus.

Two California ground tours were conducted in conjunction with the Institute for Fisheries Resources and the Pacific Coast Federation of Fishermen's Associations. One tour highlighted water diversion issues and solutions in the Eel River watershed (related to the Potter Valley project and habitat and flow restoration and screening projects being conducted by the Round Valley Indian Tribe in Mill Creek, an important tributary). The other tour focused on the screening and restoration opportunities coordinated with agricultural uses in the Cow Creek watershed, a main tributary of the Sacramento. Additionally, PSMFC helped to support a tour organized by the Salmonid Restoration Federation during their annual conference for scientists and habitat restoration specialists. The tour highlighted water management and habitat restoration efforts in Dutch Bill creek, a tributary of the lower Russian River Basin and considered to be one of the most critical watersheds for the recovery of endangered coho salmon and steelhead.

In Oregon, a watershed tour was conducted by bus and boat in conjunction with the Governor's natural resource office and involved 40 state and federal agency partners, the public utility district and non-governmental partners (McKenzie River Trust, McKenzie Watershed Council, Meyer Memorial Foundation). It emphasized the funding needs and high priority projects called out in the Willamette Biological Opinion and how these needs overlap with recovery plan actions for other species. Fish screens at irrigation dams, the water temperature control structure at Cougar Dam, and a habitat restoration project at Green Island were tour stops.



Visiting a fish screen on a water diversion canal, McKenzie River, Oregon

NORTHERN PIKEMINNOW MANAGEMENT PROGRAM



The **Northern Pike minnow Predator Control Program** is a joint effort between the fishery agencies of the states of Washington and Oregon, and the Pacific States Marine Fisheries Commission (PSMFC). This year, 2008, marked the 17th consecutive year of the program. The Washington Department of Fish and Wildlife operated the sport-reward registration/creel check stations throughout the river and handled all fish

checked into the program. Oregon Department of Fish and Wildlife provided fish tagging services, population studies, food habit and reproductive studies, as well as exploitation rate estimates. The Pacific States Marine Fisheries Commission provided fiscal and contractual oversight for all segments of the Program and processed all reward vouchers for sport-reward anglers.

During the 2008 season:

- A program total of 158,191 fish were harvested in the sport-reward fishery.
- Vouchers for 158,507 fish of the 159,806 total catch were submitted for payment with rewards totaling \$1,001,693.
- Rewards were paid at \$4 for the first 100 fish caught during the season, \$5 for fish caught in the 101-400 range, and \$8 for all fish caught by an angler above 400 fish during the month of May. Tagged fish rewards were \$500.
- A total of 994 anglers who registered were successful in catching one or more fish in 2008. The 2008 season ran from May 5, 2008 through October 12, 2008.
- A total of 167 tagged fish were caught. Anglers were issued a special tagged fish voucher for all tagged fish brought to the registration station. The tag voucher was then sent in with the tag for verification and payment of \$500 was made for each tagged fish. This resulted in tag reward payments of \$83,500.
- System-wide exploitation in 2008 of northern pikeminnow 200 mm or greater in fork length was 14.8% which incorporated a tag loss of 5.0%. Sport-reward exploitation of fish > 250 mm FL was 19.5%, the highest exploitation rate since program inception.
- The 2008 estimated reduction in potential predation was 38% lower than pre-program levels based on the 2008 exploitation rate.

WEST COAST GROUND FISH OBSERVER PROGRAM



The **West Coast Groundfish Observer Program (WCGOP)** provides coastwide estimates of discards across groundfish fisheries throughout the year. The data used for these estimates are derived from data collected by observers at sea. These estimates are an important component to stock assessments and the management of groundfish stocks on the West Coast. Observers collect scientific, management, and other data through on-board interviews with vessel captains and crew, observations of fishing operations, measurements of selected portions of the catch and fishing gear and collection of biological samples.

2008 was the seventh year the West Coast Groundfish Observer Program (WCGOP) actively deployed observers in a variety West Coast groundfish fisheries. The program has standardized its sampling and vessel coverage plans while remaining flexible to the needs of an evolving sampling plan created by the WCGOP with help from stock assessment authors and the Pacific Fisheries

Management Council (PFMC).

In January 2008, the program held its 7th Annual Observer Meeting in Portland. The two-day meeting is unique among observer programs and has helped the WCGOP work through some of the many issues related to sending biologists to sea alone to collect information. Observer feedback and input allow program staff to stay current with the issues that observers face day-to-day in performing their jobs.

In March 2008, the program completed training of 23 seasonal observers who were deployed throughout the coast to assist the 24 year round observers. Employing seasonal observers allows the program to efficiently match observer resources to meet the demands of the groundfish fisheries off the West Coast. From late March thorough October, the program operated with up to 47 active observers in the field collecting data.

Safety at sea is a high priority for the WCGOP. Every observer in the program is required to have completed safety training and/or a safety briefing within the past year. In September 2008 the program gathered the year-round observers in Newport, Oregon, for an annual safety briefing. Safety refresher training included: donning immersion suits, fire fighting, in-water safety exercises while wearing an immersion suit, fire drills aboard a commercial fishing vessel, and a variety of discussions to raise safety awareness. The program utilized a commercial vessel from the Newport groundfish fleet to conduct drills. US Coast Guard representatives answered a variety of questions about vessel safety and ran the observers through a simulated vessel sinking exercise.

While there is no way to ensure safety aboard a commercial fishing vessel at sea, the program aims to promote awareness to avoid accidents and improve safety and survival skills in the case that an emergency occurs.

The table below shows the sea time observers were onboard each type of gear by state from January 2008-December 2008. A total of 2939 days at-sea were completed in 2008.

State	Trawl	Longline	Pot	Shrimp	Open Access
California	622	213	37	18	124
Oregon	1042	102	84	216	194
Washington	103	162	6	8	8
Total	1767	477	127	242	326

The WCGOP Data Reports can be found at:

<http://www.nwfsc.noaa.gov/research/divisions/fram/observer/datareport/index.cfm>.



ALASKA | CALIFORNIA | OREGON | INDIA

PORTLAND 5665 SW Meadows Rd., Ste. 200, Lake Oswego, OR 97035-3131
phone 503.620.4489 fax 503.624.0817

INDEPENDENT AUDITORS' REPORT

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

We have audited the accompanying basic financial statements of the Pacific States Marine Fisheries Commission (the Commission) as of and for the years ended June 30, 2008 and 2007 as listed in the table of contents. These basic financial statements are the responsibility of the Commission's management. Our responsibility is to express an opinion on these basic financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards issued by the Comptroller General of the United States. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the basic financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the basic 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 audits provide a reasonable basis for our opinion.

In our opinion, the basic financial statements referred to above present fairly, in all material respects, the financial position of the Pacific States Marine Fisheries Commission as of June 30, 2008 and 2007 and the changes in its net assets for the years then ended in conformity with accounting principles generally accepted in the United States of America.

In accordance with Government Auditing Standards, we have also issued a report dated March 9, 2009 on our consideration of the Commission's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, grant agreements, and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with Government Auditing Standards and should be considered in conjunction with this report in considering the results of our audits.

The Management's Discussion and Analysis on pages 3 - 6 is not a required part of the basic financial statements, but is supplemental information required by accounting principles generally accepted in the United States of America. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the required supplemental information. However, we did not audit the information and express no opinion on it.

Our audits were conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The accompanying schedule of expenditures of Federal awards is presented for purposes of additional analysis as required by U.S. Office of Management and Budget Circular A-133, Audit of States, Local Governments, and Non-Profit Organizations, and is not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

AKT LLP

Lake Oswego, Oregon
March 9, 2009

2008 HEADQUARTERS STAFF

Randy Fisher, *Executive Director*
Pam Kahut, *Fiscal Manager*
Elizabeth Graves, *Human Resources Manager*
Sharon Perkins, *Executive Assistant*

Program Managers

Stan Allen, *Senior Program Manager*
California Fisheries Database Projects

Russell Porter, *Senior Program Manager*
Recreational Fisheries Information Network
Northern Pikeminnow Management Program

Dave Colpo, *Senior Program Manager*
Economic Fisheries Information Network (EFIN)

Carter Stein, *Senior Program Manager*
PIT Tag Information System (PTAGIS)

Stephen Phillips, *Program Manager*
Aquatic Nuisance Species Program

Jim Benante, *Program Manager*
West Coast Groundfish Observer Program

George Nandor, *Program Manager*
Regional Mark Information System

Robert Ryznar, *Program Manager*
Alaska Fisheries Information Network (AKFIN)

Bruce Schmidt, *Program Manager*
StreamNet

Brad Stenberg, *Program Manager*
Pacific Coast Fisheries Information Network (PacFIN)

Fran Recht, *Program Manager*
Habitat Program

Todd Kaehler
IT Systems Manager

Richard Masters
Accounting Program Manager

Matthew Robertson
Software Systems Administrator

