



Pacific States Marine Fisheries Commission

59th Annual Report 2006

DESCHUTES RIVER, OREGON

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

59TH 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
2006

PACIFIC STATES MARINE FISHERIES COMMISSION MEMBERS 2006

State	Commissioners	Advisors	Coordinator
Alaska	Sue Aspelund Stephanie Madsen Ben Stevens	Terry Johnson Don Lane Matthew Moir Gabe Sam	Herman Savikko (ADFG)
California	LB Boydston Loris Ryan Brodderick Thomas Harman	Jim Caito Robert Fletcher Donald K. Hansen Mike McCorkle Roger Thomas Kate Wing	Marija Vojkovich (CDFG)
Idaho	Steve Huffaker Joe Stegner Cameron Wheeler	Alex Irby Marcus Gibbs	Sharon Kiefer (IDFG)
Oregon	Paul Heikkila Wayne Krieger Virgil Moore	Jeff Feldner Steve Fick Liz Hamilton Bob Jacobson Rod Moore Brad Pettinger Frank Warrens	Maggie Sommer (ODFW)
Washington	Jim Buck Jeff Koenings Harriet A. Spanel	Mark Cedergreen Marion Larkin Irene Martin Lisa Pelly Bill Robinson Terry Wright	Phil Anderson (WDFG)

SUMMARY OF PSMFC ANNUAL BUSINESS MEETING

August 23, 2006

The 59th Annual Meeting of the Pacific States Marine Fisheries Commission was held on August 21-23, 2006, in Portland, Oregon. Paul Heikkila, Oregon Commissioner, served as Chairperson of the business meeting.

During the August 23rd business meeting, the Commission made decisions on the following issues:

Issue No. 1.—Does the Commission support SSCs/ABCs/TACs?—The Commission favored this section of HR 5018, which states that:

- the SSC sets the ABC where possible
- the Council sets harvest at/below the SSC level
- if a stock of fish is down, the subsequent harvest is lower
- there will be no hard TACs.

The Commission supported the staff draft's requirement to establish a training program for Council Members; that it be mandatory; but that a member is not precluded from voting if that training is not immediately available. **The vote was 5-0.**

Issue No. 2.—Does the Commission support ending overfishing?—The Commission favored this section of HR 5018, which:

- specifies a time period not to exceed two years
- exempts "annual" species and requires that there be a NAS annual species study
- acknowledges there is a significant national debate ongoing on this issue

The Commission voted to support the House version of this issue, but preferred that there be a one-year time limit that is consistent with the Commission's position last year. **The vote was 4-1, with California voting no.**

Issue No. 3.—Does the Commission support the 10-year rebuilding period?—The Commission voted to support this section of HR 5018, which:

- preserves the 10-year standard and provides added flexibility if initial rebuilding targets are substantially changed
- applies a biologically-determined time limit to any extensions
- acknowledges there is a significant national debate ongoing on this issue.

The vote was 4-1, with California voting no.

Issue No. 4.—Does the Commission support the Dungeness crab 10-year extension?—The Commission voted in favor of this section of S 2012 which supports the 10-year extension for Dungeness crab, but expressed concerns about new language that addressed possible changes to management criteria of this fishery. The Senate language implies the use of stock status data in management while size, sex and season are the primary management tools currently in use. **The vote was 5-0.**

Issue No. 5.—Does the Commission support data confidentiality/access?—The Commission voted to separate this into two issues—data confidentiality and access and new language that would allow criminal and civil prosecutions with that data information.

First, the Commission supported this section of HR 5018, which:

- defines “observer information” and protects it
- does not authorize proprietary data
- expands the collection of socioeconomic data
- maintains the confidentiality of all information
- requires state-federal confidentiality agreements.

The vote was 5-0.

The second issue was to amend the existing statute, 16 U.S.C. 1881a (b)(1)(D) to read “when such information is used to verify catch under a limited access privilege program” and deleting an individual fishing quota program, and adding a new section (G) to read “when such information is used in the course of a civil or criminal enforcement proceeding in a state court”. **The vote was 4-1, with California voting no.**

Issue No. 6.—Does the Commission support the Observer Program?—he Commission voted in favor of this section of HR 5018, which:

- specifies a fishery observer fund
- provides broad discretion to set fees to cover costs
- provides that dollars collected will stay in the same fishery
- states that vessels are not liable for observer sanctions

The vote was 4-1, with California voting no.

Issue No. 7.—Does the Commission support ecosystem management plans (EMPs)?—The Commission voted in favor of this section of S 2012, which:

- does not authorize EMPs
- regulations/guidelines are not authorized
- requires study on the state of EMP science
- similar provision for assistance
- requires no new regulations/definitions
- does not include similar provision on species and environment

The Commission supported the concept of ecosystem-based fishery management plans, however, it felt the Councils were already doing ecosystem management. The Commission favored the provisions in S 2012 that does not authorize EMPs and does not require any new regulations/sanctions. **The vote was 5-0.**

New Issues

Alaska Issue 1—PSMFC should include in the tasks assigned to its Washington, D.C. representative, Brad Gilman, monitoring appropriations that are necessary to implement the Pacific Salmon Treaty between the U.S. and Canada (treaty). Also, that PSMFC should monitor the status of these appropriations and report periodically to the PSMFC and the affected states. **The Commission unanimously supported this issue. The vote was 5-0.**

Oregon Issue 1—Funding for Tri-State coordination of salmon genetics projects. There is a need to fund and establish a tri-state coordination process through PSMFC that will enable all three states to conduct consistent, coastwide scientifically valid salmon genetics projects. A minimum of three years of funding, beginning in 2007, is needed. Consistent project methodologies are needed to ensure a valid, useable management product. This issue is following up on this year's successful data collection program using the salmon troll fleet and coordinating with OHSU/HMFSC researchers.

The Commission unanimously supported this issue with the following language: There is a need to find and establish a federal/state coordination process through PSMFC that will enable all west coast states to conduct consistent, coastwide scientifically valid salmon genetics projects. Consistent project methodologies are needed to ensure a valid, useable management product. PSMFC is requested to convene appropriate state, federal, tribal and academic representatives to develop a framework plan and funding needs for assessing and developing a coastwide GSI sampling, processing and data recording program. **The vote was 5-0.**

Oregon Issue 2—Funding for West coast investigation of low oxygen/hypoxia events and toxic alga. There is a need for a federal effort investigating possible factors contributing to and impacts to fishery resources resulting from low oxygen or hypoxia events and toxic algal blooms, as well as documenting historic occurrences and trends of such events.

The Commission unanimously supported a federal effort to investigate possible factors contributing to and impacts to fishery resources resulting from low oxygen or hypoxia events and toxic algal blooms, as well as documenting historic occurrences and trends of such events, however, it should not be a priority for new funding. **The vote was 5-0.**

Washington Issue 1—Oppose the section in the house bill that creates a pilot Limited Access Privilege Program for the Pacific whiting fishery, thereby leaving the development of the details of such program to the regional fishery management council. **The final vote was 4 in favor of this issue, with Alaska abstaining.**

Mitchell Act Hatcheries Issue—The Commission requested that the motions that were adopted in 2004 and 2005 on Mitchell Act funding be reiterated this year. **The vote was 5-0.**

Aquaculture Bill—The Commission moved to not support the bill, leaving it up to the individual states to address their specific concerns and added an amendment to reflect the current legislative number. **The vote was 5-0.**

ANNUAL AWARD RECIPIENT

2006 PACIFIC STATES MARINE FISHERIES COMMISSION AWARD FOR CONTRIBUTIONS TO PACIFIC COAST FISHERIES

The Commission's 2006 Award for outstanding contributions in support of Pacific coastal marine fisheries resources was presented to:



Ralph H. Brown

Commercial Fisherman
Brookings, Oregon

It gives the Pacific States Marine Fisheries Commission great pleasure to recognize the contributions of **Mr. Ralph H. Brown** with this award for 2006.

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 the National Marine Fisheries Service (NMFS) to the Pacific States Marine Fisheries Commission. These funds support the 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 in 2006 by the AKFIN-SC include:

- **Fisheries of the U.S.** - The 2005 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: Alaska Landings by Distance from Shore, Alaska Landings by Disposition, Alaska Landings by Port, Vessel Licensing Data, Halibut by State, and Kodiak Fishmeal Data. This data product is provided on a yearly basis.
- **DOL Report** - AKFIN produces three data sets for use by the Department of Labor (DOL) for performing its crew estimates. The complete data set includes three views: the first reporting harvest by catcher/vessel delivering to shoreside plants, catcher/sellers, and catcher/exporters; the second reporting harvest by catcher/vessel delivering to motherships; and the third reporting harvest by catcher/processors. AKFIN provided a refreshed 2005 data set in December, after most of the Commercial Fisheries Entry Commission (CFEC) pricing was complete.
- **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 shore-based plants based on Alaska Department of Fish and Game (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>.
- **Various Value-added North Pacific Fishery Management Council (NPFMC) Data Submissions** - Pacific Salmon Commission (PSC) Halibut 1999-2004, Amendment 85 Detail Data, ADFG Vessel Number Diagnostics, CFEC Catcher/Processor Exclusion Data, Observer Data 1990-2005, Catch Accounting Data for 2003-2005, PSC Crab Table Conversions from Access to SAS, ADFG Shellfish Data for YTD 2006, Gross Earnings Data for 2005, ADFG YTD Shellfish Data, ADFG Commercial Operators Annual Report (COAR) Data for 2003-2005.
- **Various Value-added NMFS Alaska Region Data Submissions** - 2003-2005 Rockfish Data, 2001-2005 fish ticket for the Restricted Access Management Program (RAM), 2005 Alaska Landings Data, 2004 Vessel Diversification Data, 2005 CFEC Licensing Information, Gross Revenue Data for Non-American Fisheries Act Catcher/Processors 2005.
- **Economic Data Report (EDR) Certificate Validation** - Several data sets prepared for PSMFC to report catch statistics for particular EDR entities, used to validate the incoming EDR reports at PSMFC.

- **EDR Entity Cross Reference and Fish Ticket Views** - Algorithm developed to encrypt the state processor Intent to Operate (ITO) codes and ADFG vessel numbers. This algorithm was used to build a translation table for adding these encrypted identifiers, which replace the original entity identifiers, to the Fish Tickets and EDR report data. This facilitates cross-analysis of the fish ticket and EDR data.
- **Fish Ticket Targeting** - The targeting algorithm identifies a predominant species associated with each fish ticket and statistical area. This could be used in parallel with the targeting found in the NMFS Blend and Catch Accounting to see what species a vessel might have been fishing for. This was completed and run for 2003 – 2005.
- **Vessel Management System (VMS) Request** - The VMS Vessel Summaries represent the catch diversification of all vessels potentially subject to VMS requirements. The data is used to analyze the impact of changes in VMS regulation to certain sectors of the Alaska fisheries. Two data products were developed, the Fishing and Transit datasets, to consolidate NMFS and Commercial Fisheries Entry Commission (CFEC) sources to report a vessel's catch activity and estimated revenue from both groundfish and non-groundfish fisheries for 2004.
- **Seabird/VMS Request** - The Seabird/VMS data product was developed to allow GIS (Geographic Information System) and revenue analysis on the effects of changes in VMS and Seabird restrictions on certain harvesting sectors of the Alaska Fisheries. This catch summary includes 2003 and 2004 data compiled from both NMFS and CFEC sources to report all harvest data by vessel, date, species, gear, area, etc. for all vessels participating in the groundfish, shellfish, and halibut fisheries.

AQUATIC NUISANCE SPECIES



The **Aquatic Nuisance Species (ANS)** project works to prevent the spread of nuisance species through education, monitoring and research related to targeted nuisance species. Through a wide range of projects conducted during 2006, ANS targeted several nuisance species including zebra mussels, mitten crab, green crab and Atlantic salmon.

ANS sponsored a workshop in June entitled “Alternative Ballast Water Exchange Areas: Physical and Biological Oceanographic Considerations.” The workshop’s goal was to gain a greater understanding of biological and physical oceanographic processes that control cross-shelf and along-shelf

plankton transport in U.S. waters. Information developed at the workshop will assist in management and regulatory decision-making for coastal and estuarine ecosystems.

ANS provided administrative support and staffing for several ANS interjurisdictional efforts, including the Columbia and Missouri River Basin 100th Meridian Initiative Groups; the Pacific Ballast Water Group; Green Crab Technical Group; and continued to provide ANS program support for the states of Idaho, Washington, Oregon and Montana.

ANS conducted education and outreach work focusing on zebra mussels and mitten crab in the Missouri and Columbia River basins and California. Activities included distribution of educational materials at sportsmen’s shows (WA, OR, MT, CO, and UT), boat ramps, marinas, schools, etc., as well as with print and electronic media.

ANS continued to provide support for monitoring veliger and adult zebra mussels (Portland State University), Chinese mitten crab (Portland State University), green crab (Oregon State University, University of California, Davis) and Atlantic salmon (Washington Department of Fish and Wildlife). A zebra mussel veliger identification lab will also be set up at Portland State University in late Summer 2006.

ANS provided funding, along with NOAA and the Alaska Department of Fish and Game, for a demonstration project investigating the potential for the eradication and/or substantial population decrease of the European green crab. Portland State University, University of California, Davis and the Smithsonian Environmental Research Center are conducting the work in Bodega Bay Harbor, California. The study could be expanded to other estuaries if it can be shown that significant numbers of green crab can be removed.

In addition to the above activities, PSMFC, along with the USFWS, the Bonneville Power Administration, US Army Corps of Engineers, and other Columbia River state and federal agencies, continued working on the “Rapid Response Plan for Zebra Mussels in the Columbia River Basin.” The plan provides information specific to the Bonneville Hydroelectric Project to enable them to rapidly respond to any reported introduction of zebra mussels to help protect the infrastructure of the dams. Implementation of the plan is ongoing and will continue into 2007.

FISHERIES ECONOMICS DATA PROGRAM (EFIN)



The **Fisheries Economics Data Program (EFIN)** is a cooperative data collection effort that addresses the needs of fisheries managers and industry for economic data and information for the West Coast and Alaska. This project is 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 harvest and processing components of West Coast and Alaska fisheries.

On the West Coast, in 2006, EFIN staff performed the following:

- **Continued to conduct the monthly spot fuel price collection.** EFIN collects fuel prices from approximately 50 ports from Alaska to California. Once each year, the previous three years of fuel data are used to create a report that is sent to fuel suppliers and known economists that analyze cost/earnings. This report is available on the EFIN web page www.psmfc.org/efin/data/fuel.html
- **Collected data from and tracked several indexes (Producer Price Index (PPI), Employment Cost Index (ECI), Consumer Price Index (CPI), Gross Domestic Product (GDP)) that aid in the analysis of fisheries economics.** The data collected from these various sources on either a monthly or quarterly basis are posted on the EFIN web page.
- **Tri-State Commercial Dungeness Crab Website in-season updates.** Staff updated the website with the addition of letters about damoic test results, notices to commercial crab fleets and season opening/closing information provided by California, Oregon and Washington.
- **Assisted with building, shipping and tracking of Streamer Lines.** In 2000, the U.S. Fish and Wildlife Service, Pacific States Marine Fisheries Commission (PSMFC), and NOAA Fisheries Service, in conjunction with Washington Sea Grant, developed and distributed free streamer lines made of 3/8" blue steel poly to Alaska longliners. Over 4,000 have been distributed.
- **Nearshore fisheries logbook database design and data entry for Cindy Thomson.** Harvest of nearshore groundfish is subject to restrictive, statewide quotas that constrain the ability of fishermen to harvest healthy stocks that may be caught in conjunction with depressed stocks. Data are needed to identify actual at-sea locations where fishing occurs, show how the species composition of catch varies among locations, and determine whether different gear configurations are selective for different species. Access to such data, in conjunction with trip-specific economic data will allow the economic effects of alternative gear restrictions and spatial closures to be evaluated.
- **Successfully and accurately completed the Bering Sea and Aleutian Islands (BSAI) Crab Economic Data Report collection for the year 2005, including distribution, support, collection, data entry, reporting, auditing and archiving.** An Economic Data Report (EDR) is required from any owner or leaseholder of a vessel or processing plant that harvested or processed crab in specified BSAI crab fisheries during the prior calendar year.

In Alaska, EFIN staff conducted the following tasks:

Alaska Crab Rationalization

Pacific States Marine Fisheries Commission (PSMFC) functions as the Independent Third Party Data Collection Agent (IT-PDCA) 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 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 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) – a 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. 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 year 2005 were required to submit an annual report for all three years.

EDRs were mailed to crab processing plants and vessels, collected, tracked, reported to Restricted Access Management (RAM) for permit and quota issuance, and reviewed for completeness. The EDR data was entered, archived and submitted to NMFS for analysis. This process is repeated every year for the previous year's fishery.

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 2006, the PacFIN Office processed 262 data feeds from eight data sources and responded to 143 requests-for-information. There were 612,414 visits to the PacFIN website for an average of 51,035 visits per month. This is an increase in visits compared to 41,828 visits per month in 2005 and 17,021 per month in 2004. Various selections of standard PacFIN reports were generated weekly or monthly and uploaded to the PSMFC and PacFIN web pages.
- The Quota Species Monitoring (QSM) subsystem was expanded by incorporating catch estimates for the area "Oregon Coast (OC)" for all species reported by Washington Department of Fish and Wildlife (WDFW). Catch estimates for species LSPN (Longspine thornyhead) and SSPN (Shortspine thornyhead) were broken into separate line items for areas VN (Vancouver-US), CL (Columbia), EK (Eureka), MT (Monterey) and CP (Conception).
- The At-Sea data included within the Quota Species Monitoring (QSM) subsystem uses summarized and speciated data developed by the refresh_npac4900 program. This program was modified to use the newly established npac_current_haul and npac_current_spcomp Oracle views, which are part of the NORPAC database/ information system.
- The redevelopment of the QSM subsystem within the Oracle software environment, rewriting the application code in PL/SQL (Procedural Language/Structured Query) and redesigning and adding some QSM-internal data structures was completed.
- A program was developed to produce datafeeds for the Washington, Oregon and California (WOC) At-sea fishery, using direct retrievals from the North Pacific Database Program (NORPAC) database. This Alaska Fisheries Science Center (AFSC) data feed, containing monthly aggregates, had been produced for many years by the Northwest Region (NWR) and then submitted to the PacFIN system during the At-sea fishing season. The new program produces the standard PacFIN aggregated-catch (AGC) transactions, allowing the PacFIN office to upload the data on a more frequent basis, while eliminating this as a NWR task.
- A program was developed to identify both Limited Entry (LE) and Open Access (OA) vessels that participate in the Daily Trip Limit (DTL) fishery.
- A "city_cnty" table was added to central database to enable retrievals of WOC permit counts by city and county.
- An extensive re-working of the high level report for the annual North Pacific Anadromous Fish Commission Meeting was completed.
- A program was developed for the PFMC's Salmon Technical Team to produce daily salmon catch and effort by vessel (using fictitious vessel-id's) and port group which was used during the analysis leading up to the Oregon/California salmon closure.
- The project to convert remaining 'C' programs to Oracle continued, with the completion of software for the QSM subsystem, extract_sc retrieval program, bld_actual_prices program and the vessel summary (bld_vsums) program. Performance of the extract_sc program was improved as part of this conversion effort. The last remaining 'C' programs are the suite of report generation programs: rpt_source, rpt_area, rpt_port, rpt_gear, rpt_period, and rpt_species. An analysis and design for accomplishing the conversion of this subsystem was completed. The report definition data model and an operational prototype for the area and gear report functions were completed.
- The search method within program, ftl_estimate_prices, was modified to alternate the search month forward and backward for a total of 24 months.

- An analysis to determine how to identify California Department of Fish and Game (CDFG) category 211 (pure dover sole) for years 1981 – 2002 versus the same 211 (nominal dover sole) category for 2003 – present was conducted, resulting in a proposal to CDFG.
- The subsystem for adding and modifying entries for species codes in the SP (species) table was enhanced, including the addition of automatic validations via Oracle trigger functions to ensure that associated tables have been updated appropriately.
- Southwest Fisheries Science Center (SWFSC) staff requested that a primary key be implemented for the SV (State Vessel) table. This request was researched along with a review of the Oracle Snapshot feature. The primary key for the SV table was implemented and the SWFSC has commenced with weekly downloads of the fish-ticket data to the SWFSC's Unix/Oracle system using Snapshot.
- Data elements disp (disposition) and removal_type were added to table VDRFD (Vessel Daily Rockfish Distributed) at the request of Northwest Fisheries Science Center (NWFSC) staff.
- At the request of the NMFS/ST1 group, the PacFIN office researched why summations of kelp seaweed catch data for WA-OR-CA available from NMFS's website are consistently greater than comparable statistics displayed on the PacFIN website. It was determined that landings of kelp seaweed are not part of the fish-ticket data provided by CDFG to PacFIN, but landings (pounds and revenue) for kelp seaweed are included in the NMFS/ST1 data base. At the November Pacific Coast Fisheries Data Committee (PCFDC) meeting, it was agreed that a description of this phenomenon be posted on the PacFIN website.
- Software and database structures were developed that allows loading of all historical CDFG Species Composition (SCM) data to an Oracle table. This project is in a prototype status pending further direction/requests from the Groundfish Management Team (GMT).
- Web access retrieval functions available on a protected site were expanded to include four fish-ticket and one Biological Data System (BDS) retrieval programs.
- Software to produce code lists for Fish Ticket Line (FTL) data elements: assignment, product_use, product_form, and removal_type were developed and these code lists were added to the public access portion of the PacFIN website.
- Oregon Department of Fish and Wildlife (ODFW) requested an addition of "vertebral centra" to the list of ageing structure types in the PacFIN database. The project included establishing a new code list table for age structure types and updating database column bds.age_struct.
- A special fictitious vessel-ID process was developed in order to allow NWFSC staff to share certain data with an NMFS consultant. This included software and data table development.
- During this period, collaboration with the NMFS/AFSC/OFIS (Office of Fisheries Information Systems) group produced new types of access methods for PacFIN data providers that resolved long standing issues that have in the past prevented access to AFSC host servers intermittently. A similar effort is currently underway to improve connectivity for all PacFIN users that connect to OFIS servers.
- The de-facto Pacific Coast Fisheries Data Committee (PCFDC) Access to Confidential Data policy was agreed to by all parties in January 2006.
- The program manager met with other PSMFC staff to discuss the potential for moving the PacFIN system to a PSMFC server.
- Other operational changes included the migration of staff email accounts to the PSMFC HQ Exchange server and a move to the Microsoft Outlook mail client. FTP (File Transfer Protocol) software was purchased and installed on the PacFIN computers to aid in data transfers. NOAA/AFSC mandated desktop security requirements were implemented in order to remain in compliance with their federal rules and standards.

California Port Sampling (PacFIN)

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 2005 data quality landing reports; created final GIS maps and coordinates of 175 fathom cowcod rockfish fishing zones for the Pacific Council; created extracts and reviewed darkblotched rockfish trawl reports and GIS maps; processed and matched 2005 and 2006 trawl logs; submitted semi-monthly landings updates and monthly updates of vessel, fish dealer and species comp data to PacFIN; created landings summaries of 2006 California salmon to support a request for federal disaster relief for salmon fishermen; and participated in the development of a coastwide electronic ticket pilot project.

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 2006 and 2007 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 and roundfish 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.

COLUMBIA RIVER PIT TAG INFORMATION SYSTEM (PTAGIS)



The **Columbia River PIT Tag Information System (PTAGIS)** is a data collection, distribution and coordination project. The project saw over 1,580,000 juvenile salmonids marked with passive integrated transponder (PIT) tags, for the 2006 out-migration through the Columbia and Snake River systems, compared to over 1,889,000 in 2005 (Table 1). In 2006, over 795,000 tagged fish were detected (Table 3). These fish generated over 9,615,000 interrogation records (Table 4). One fish can generate many interrogation records, depending upon how many interrogation sites or monitors 'saw' the fish.

In 2006, the PTAGIS project, in cooperation with NOAA Fisheries and the US Army Corps of Engineers, completed work on the installation of the Bonneville Corner Collector PIT-tag detection system. The Bonneville Corner Collector is the largest PIT-tag antenna in the world and was completed in May 2006. In addition, installation of Adult PIT-Tag detection systems at Bonneville Dam, Bradford Island Fish Ladder and Washington Shore Counting Window were completed. All three of these systems are currently online for the 2006 fish migration season.

PTAGIS continues to support a number of agencies utilizing the "Separation by Code" (SbyC) system capability. This system has the capability to divert PIT-tagged fish in various directions based upon distinct tag code. The PTAGIS project implemented support for 13 separate Separation by Code projects for various agencies in 2006.

The PTAGIS project continued development of the M4 application, which will replace current interrogation and SbyC applications by Summer 2007.

TABLE 1

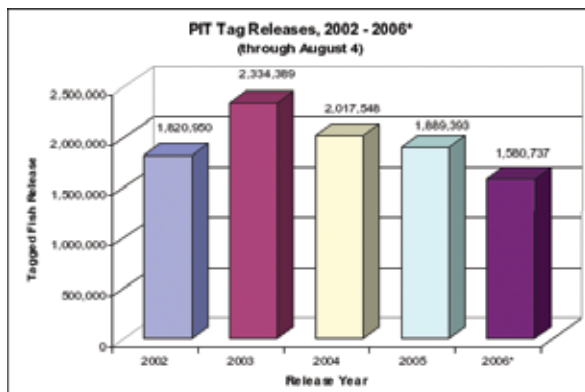


TABLE 2

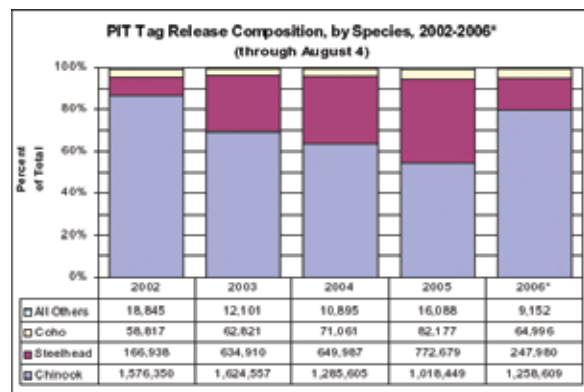


TABLE 3

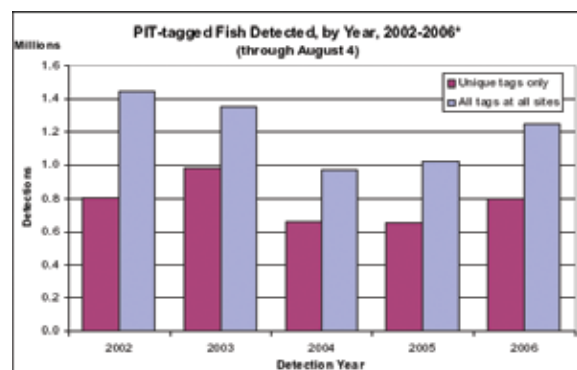
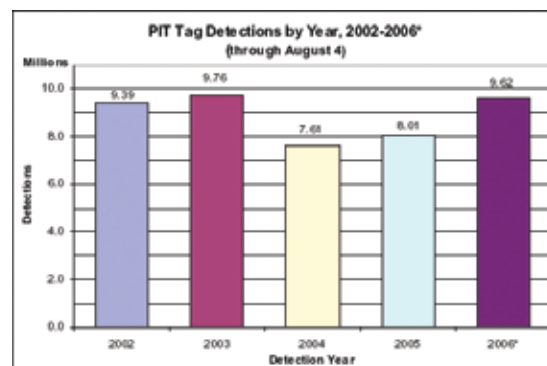


TABLE 4



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 coastwide 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; and 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 coastwide in the three states. Of these sites, about 57% are in California, 10% in Oregon and 33% in Washington.

In 2006:

- The state of California and PSMFC conducted the CRFS in California. Over 100,000 angler trips were sampled during the 12-month sampling program.
- A total of about 40% of all ocean boat angler trips were sampled in Oregon where sampling occurred from March through October.
- The state of Washington conducted their Ocean Boat Survey and the Puget Sound Boat Survey. Sampling occurred throughout the year in Puget Sound and from April to 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 is 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].

REGIONAL MARK PROCESSING CENTER (RMPC)



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, re-

covery and associated catch sample information. The RMPC adopts new data formats and implements software, hardware and personnel enhancements to meet evolving CWT informational needs of 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 over 1,200 different coded wire tag codes.

- **New Web Based RMIS Data Retrieval Application**

Work in 2006 completed the new RMIS “Analysis Reporting System”. The new RMIS “Analysis Reporting System” has some very powerful capabilities and new features which have the ability to map individual tag recovery locations to actual management fisheries based on area and gear. It also allows people to aggregate data in multiple ways in a single report by using grouped criteria defined by the user (i.e., sets of tag codes or sets of management area fisheries).

- **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.

- **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 very small (less than 1,000 out of 6+ million records), 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 was identified. The RMPC is working closely with the responsible agencies to coordinate the filling of those data gaps.

- **Annual Mark Meeting**

The 2006 Mark Meeting was hosted by the Washington Department of Fish and Wildlife (WDFW) and held in Port Angeles, Washington. Key issues included discussions and updates on coastwide mass marking and selective fisheries activities. Issues involving blank CWT wire, which is identified as “agency only wire”, as a mark were also discussed. The need to update the “Regional Coordination and Agreements on Marking and Tagging Pacific Coast Salmonids” document was identified, particularly the issue of mass marking with adipose fin removal and revising certain outdated sections of the document.

- **Personnel**

Ken Johnson retired as the Program Manager of the Regional Mark Processing Center after a successful career of starting up the Regional Mark Center and bringing it to the point of being the premier database of coded wire tags for the Pacific Coast region.

George Nandor was chosen to replace Ken, effective September 1, 2006. George recently retired from the Oregon Department of Fish and Wildlife after 31 years of service. His primary responsibilities with ODFW were in the area of fish hatchery management and data collection, operational policies and procedures, and project and personnel management.

STREAMNET



The **StreamNet Project** is a cooperative venture among the Northwest Power and Conservation Council's Fish and Wildlife Program and the region's state, tribal and federal fisheries management agencies. The project is funded by the Bonneville Power Administration and is administered by the Pacific States Marine Fisheries Commission. The project supports staff within the management agencies to obtain, geo-reference and standardize primary data used in fisheries management. The standardized data are then submitted to PSMFC for inclusion in the StreamNet database and made publicly available at www.streamnet.org through an on-line data query system and interactive map applica-

tions. The project also provides various data-related services, including custom data development, data tool development, and assistance with data management.

Fiscal Year 2006 was successful for the StreamNet Project. Besides routine data updates and system management, significant emphasis this year was placed on strategic direction for the project. A Vision and Strategic Plan document was written (available at http://www.streamnet.org/about-sn/project_management.html) with expanded emphasis on tool and data system development for the data source agencies. StreamNet staff also took a broader approach to developing its proposal for the next funding cycle under BPA's Fish and Wildlife Program. The result of that approach is that StreamNet staff will participate in one or more regional scale workshops in September to determine the data types and data services that are seen as highest priority, and will develop its FY-2007 Statement of Work around those priorities.

Routine tasks continued during the year, including update of data sets, management of the StreamNet database system, management of the StreamNet website and data query system, and ongoing operation of the StreamNet Library. Some notable accomplishments include the following:

- Use of the StreamNet website, the data query system and the interactive map interfaces continued to be high. Details of site use will be computed at the end of the 2006 fiscal year, which ends September 30.
- Developing a new pilot project (partially on other funding) to conduct an inventory of monitoring activities in the region. A proposal was developed for a three-month pilot effort and the pilot was conducted in July, 2006. An online interface captured information about who does what monitoring where in the region, and an interactive map application will be developed to display the results.
- Continuing active involvement in a number of regional collaborative efforts., including:
 - Serving on the steering committee for the Northwest Environmental Data-network (NED), a regional scale project to develop standards and protocols for sharing data.
 - Serving on the steering committee for the Pacific Northwest Aquatic Monitoring Partnership (PNAMP) which is working to develop coordinated approaches to field monitoring.
 - Working closely with the Collaborative Systemwide Monitoring and Evaluation Project (CSMEP) that is focused on developing a regionally consistent approach to monitoring fish populations in the Columbia Basin.
 - Having developed an online interface to collect source information on regional salmon sampling data, continuing working on inventories of those data by subbasin for CSMEP.
 - The StreamNet Library provided storage and retrieval services for data source documentation for all data in the StreamNet database, plus full library services with an emphasis on fish and wildlife literature.

More details of work done in FY-2006 is available through the BPA Pisces project tracking system and also available on the StreamNet website at http://www.streamnet.org/about-sn/project_management.html.

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. Just this past year, a multi-agency Memorandum of Understanding was signed, formalizing the CalFish Program. 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 website.

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.

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 the 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 setting of seasons for salmon fisheries coastwide.

The **California Passage Assessment Database (PAD)** was further developed (over 14,000 sites have been identified) to locate and document 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 website.

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 (RRCSCBP)**. The RRCSCBP 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 **Lower Central Valley Data and Technical Assistance** 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 expanded work with the California Department of Fish and Game to assist them with the administrative aspects of conducting the **Resource Assessment Program**. PSMFC administered contracts for 13 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 projects such as erosion control, removal of fish barriers, and removal of non-native vegetation, in order to improve fish habitat.

PSMFC seasonal fisheries technicians completed field work which will be used to assess the accuracy and precision of aquatic habitat monitoring protocols, by testing **CDFG protocols in the John Day Watershed** and follow-up work in California.

PSMFC provided 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 **California Coastal Salmonid Monitoring Plan**.

PSMFC assisted in tracking and managing data quality and database accuracy for the **California Bay-Delta Authority**.

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 coded-wire tagged (CWT) fish in the river and obtain detailed information on sex and spawning status.

In the **San Joaquin River Basin**, PSMFC assisted in water temperature data collection, conducted the Stanislaus River Chinook salmon carcass survey, spawned Merced River Hatchery fall-run Chinook salmon, read coded-wire tags, data entry, fish screening, and monitored entrainment of salmon into water diversions.

COOPERATIVE AGEING PROJECT

The **Newport Ageing Lab** was established to age marine groundfish structures and is a collaboration between the NOAA Fisheries and PSMFC. The lab is located in Newport, Oregon, at the Northwest Fisheries Science Center's (NWFSC) facilities. Otoliths, the earbones of fish collected from federal surveys and commercial catch, are the primary structures aged by this lab and are used to provide the basis for U.S. West Coast stock assessments. Age data help 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 2006, CAP personnel performed the following tasks:

- Aged 33,987 otoliths and 1,089 interopercles (bones that form the gill cover) from eight species of U.S. West Coast groundfish, including arrowtooth flounder, canary rockfish, Dover sole, darkblotched rockfish, English sole, Pacific hake, Pacific Ocean perch and sablefish. This includes all types of ageing, such as production, double reads for quality control, recalibration, training and research reads.
- Inventoried and tracked structures from 57 species of U.S. West Coast groundfish.
- Participated in the Committee of Age Reading Experts (C.A.R.E.) conference at the Alaskan Fisheries Science Center (AFSC), in Seattle, Washington. CAP personnel chaired the CARE conference, and volunteered to coordinate aspects of the 2008 C.A.R.E. meeting.
- Developed an otolith image database that standardized image type, name and other searchable features.
- Developed the skills to age arrowtooth flounder in support of the 2007 Northwest Fisheries Science Center stock assessments. This was a new species for the Ageing Lab.

FISH HABITAT EDUCATION PROGRAM



The **PSMFC Fish Habitat Education 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 are funded primarily by the Wallop-Breaux Sport Fish Restoration program and the National Marine Fisheries Service.

Estuarine Restoration and Protection:

The habitat program helped support efforts undertaken by the state and federal governments and non-profit groups, including The Wetlands Conservancy, the Mid-Coast Watersheds Council, and The Central Coast Land Conservancy which conserve salt marsh and wetlands in two important salmon producing areas on the Oregon Coast Yaquina Bay and Beaver Creek. Work included gathering technical information, conducting site visits and field tours, and arranging

for outreach to local landowners and for participation by local government.

Watershed Council support:

The habitat program provides administrative and technical assistance to the Mid-Coast Watersheds Council in Oregon to assist and further its work to assess and prioritize needs, implement restoration projects and monitor results. The program's efforts helped this collaborative group to effectively utilize about \$600,000 for work in fiscal year 2005-2006 that addressed factors most limiting to salmon survival in a million acre region. The program also helped start the Alsea Stewardship Group, a collaborative effort with the U.S. Forest Service and multiple partners to accelerate dedicated restoration work within the Siuslaw National Forest and on nearby private lands to benefit salmon and watershed health.



The program works to conserve salt marshes, key nursery habitat for salmon and other marine fish and invertebrates.



Poole Slough tidal marsh, Yaquina Estuary



The program works with the watershed council to assure highest priority projects are accomplished

Habitat Tours

Watershed tours were conducted in California and Washington in 2006 to allow state and local government officials, agency personnel, other decision makers, and the media to learn directly about salmon habitat issues and the work being done to address these problems. The tours also emphasize the collaborative efforts and partnerships involved in the work and the need for continued support and funding. Eleven aerial watershed tours (involving 25 participants) were conducted in the Nisqually and Nooksack basins with the assistance of the non-profit group, Lighthawk, which provided small planes and pilots to fly over areas of interest. The flight paths were chosen to highlight key restoration and conservation topics in coordination with the Nisqually River Council, Nisqually Tribe, Nisqually Land Trust and the Nooksack Salmon Enhancement Association (NSEA) and Whatcom County Marine Resources Committee (WCMRC), respectively.

In California, ground tours were used to orient decision-makers to the work being done in Sonoma County (Russian River Valley) and in the Mattole River Watershed. The Institute for Fisheries Resources coordinated the tours for the habitat program and involved multiple partners in the planning, conducting, and providing interpretation. The Russian River Tour allowed participants to learn about the Coho captive broodstock program, see a juvenile Coho monitoring and trapping site where the numbers of fish are counted to help gauge the success of the captive broodstock program, see a culvert replacement project that opened up more than a mile of spawning habitat, and a creek restoration project which involved instream structure placement to create pools and trap gravel as well as riparian planting. The Mattole River Watershed Tour was conducted with the assistance of two groups actively involved in restoration in the basin—the Mattole Restoration Council and the Mattole Salmon Group. After a historical overview of the Mattole and restoration efforts, participants observed a downstream migrant trap, a salmon-rearing facility, a wing-dam bank stabilization project, a culvert project, and estuary habitat improvement and channel re-contouring structures. The tour ended with a presentation from a fisherwoman on the significance of restoration to the fishing industry. The habitat program also helped to sponsor a tour organized by the Salmonid Restoration Federation during their annual conference in the Dutch Bill Watershed, a tributary to the lower Russian River, one of the most critical watersheds for the recovery of endangered coho salmon and steelhead in the Russian River. Forty persons attended the tour.



Marine Habitat Website/Education

This program provided information to sport fishermen at three sport shows (in Oregon, Washington, and California) and to industry groups (through contacts at these sport shows and through mailings) about new groundfish habitat information, including maps and an interactive website (operated by PSMFC) that fishermen can access. It also provided information on the recently enacted groundfish habitat protection measures. The information and habitat protection measures resulted from work undertaken by the Pacific Fishery Management Council to protect Essential Fish Habitat for Pacific Coast Groundfish and prepare an Environmental Impact Statement.



Marine Debris/Net Recycling Alaska

With support from the Marine Conservation Alliance Foundation (MCAF), the habitat program conducted a study of options for handling the 100 tons of derelict fishing nets and lines that result from its beach clean-up efforts and for handling the tons of materials that end up in fishing communities landfills each year. Unalaska receives about 1,000 tons of nets each year; Kodiak receives approximately 400 tons of nets per year. With landfill space at a premium in rural Alaska and the cost to ship accumulated debris outside prohibitively expensive, options and markets for recycling of nets and gear and alternative disposal strategies such as use in co-generation power facilities were explored, and a pilot net recycling program to be based in Unalaska was proposed.

Essential Fish Habitat and Ecosystem Based Fishery Management

The habitat program participates on the Pacific Fishery Management Council's Habitat Committee. This group advises the Council on issues affecting the habitat needs of managed fish species. In 2006, it provided input on Klamath and Columbia River water and dam issues, marine sanctuary protections, krill protection and helped promote work by the Council on Ecosystem-Based Fishery Management. In addition, this program worked with a group of scientists who have worked with the North Pacific and Pacific Fishery Management Councils to adapt the EBFM paper first produced in 2005 for publication as a perspectives article in the Canadian Journal of Fisheries and Aquatic Science. This paper by Marasco, et. Al, will be published in 2007 in volume 64.

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, 2006, marked the 16th consecutive year of the program. 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 2006 season:

- A program record total of 232,883 fish was harvested in the sport-reward fishery.
- Vouchers for 231,842 fish out of the 232,883 total catch were submitted for payment with rewards totaling \$1,568,722.
- 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 1,469 anglers who registered were successful in catching one or more fish in 2006. The 2006 season ran from May 15, 2006 through October 1, 2006.
- A total of 216 tagged fish were caught. Anglers were issued a special tagged fish voucher for all tagged fish brought to the registration station. This tag voucher was then sent in with the tag for verification, and a payment of \$500 was made for each tagged fish. This resulted in tag reward payments of \$108,000.

In 2006, system-wide exploitation of Northern pikeminnow that were 200 mm or greater in fork length was 14.6% (incorporating a tag loss of 9.9%). Additional tag recaptures from the dam angling fishery increased total system-wide exploitation to 14.8%. Sport-reward exploitation of fish > 250 mm fork length was 17.1%, the third highest exploitation rate since program inception.

Biological indexing in the lower Columbia River continued as part of the predator community evaluation. In 2006, Northern pikeminnow abundance indices in The Dalles and John Day reservoirs were among the lowest observed to date. The consumption index value for the John Day Dam tailrace was the highest to date, while consumption indices in other areas were generally low. Predation indices were similar to or lower than previous years. Although 66% of Northern pikeminnow stomachs were empty, all identifiable fish remains were determined to be juvenile salmonids.

WEST COAST GROUND FISH OBSERVER PROGRAM



The **West Coast Groundfish Observer Program** provides coastwide estimates of commercial groundfishing discards for a number of gear types throughout the year. The data used for these estimates are derived from data collected by observers at sea. Discard 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.

During 2006, the **West Coast Groundfish Observer Program** (WCGOP) operated with 23 year-round observers. In February 2006, 20 seasonal (8-month) observers were trained and ready for deployment in March. From March-October, the program operated with up to 43 active observers in the field collecting data. This year was the fifth year the WCGOP actively deployed observers in a variety of 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 Fishery Management Council.

In addition to the yearly training classes, the program holds an annual meeting in January and safety briefing in September. The annual meeting allows an open exchange between staff and observers in the pursuit of collecting effective data and remaining safe at sea. The two-day meeting is unique among observer programs and has helped the WCGOP work through many issues related to sending a biologist alone to sea to collect information.

In September 2006, an annual safety briefing was held for year-round observers. The safety briefing included: man overboard, immersion suit donning, fighting fire, in-water safety exercises, fire drills aboard a commercial fishing vessel, and a variety of discussions raising safety awareness and survival skills.

In 2006, the program had a total of 2,591 days at-sea aboard commercial fishing vessels. The table below shows the sea time observers were onboard and each type of gear by state from January 2006-December 2006.

State	Trawl	Longline	Pot	Shrimp	Open Access
California	497	170	48	0	163
Oregon	914	61	45	3	271
Washington	224	195	0	0	0
Total	1635	426	93	3	434

All the data collected by observers is entered into a database and run through a QA/QC process that includes bimonthly debriefing interviews, data error checking, and evaluation of sampling methodology. The debriefing interviews allow the program to provide feedback to observers on the quality of the data they collected and how to improve data collection efficiency and overall data quality.

The West Coast Groundfish Observer Program Data Reports for 2006 are available at:
<http://www.nwfsc.noaa.gov/research/divisions/fram/observer/datareport/index.cfm>



**ALDRICH
KILBRIDE &
TATONE LLC**
CPAs & Business Consultants

*Helping our clients
achieve their goals*

PORTLAND

560 COMMERCIAL ST. NE
SUITE 200 PORTLAND OREGON
OREGON 97208-4451
PHONE: 503.525.4499
FAX: 503.525.2497

SALEM

1011 COMMERCIAL ST. NE
SUITE 120 SALEM
OREGON 97301-1185
PHONE: 503.535.7774
FAX: 503.534.4495

**SAN DIEGO
CALIFORNIA**

TARRIS RD
MISSION VIEJO

WWW.AKTCPA.COM

MEMBER OF
CPA AMERICA
INTERNATIONAL BOARD
Member-Fellow of Association
of Certified Chartered Accountants

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, 2006 and 2005 as listed in the table of contents. These financial statements are the responsibility of the Commission's management. Our responsibility is to express an opinion on these 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 of America. 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 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, 2006 and 2005 and the results of its operations 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 31, 2007 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 audit.

Management's Discussion and Analysis are not a required part of the basic financial statements, but are supplementary 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 supplementary information. However, we did not audit the information and express no opinion on it.

2006 HEADQUARTERS AND 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

