



Pacific States Marine Fisheries Commission



2010 ANNUAL REPORT

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

BALD EAGLE IN FLIGHT, ALASKA



63RD 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—

2010

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

PACIFIC STATES MARINE FISHERIES COMMISSION MEMBERS 2010

State	Commissioners	Advisors	Coordinator
Alaska	Sue Aspelund Bryce Edgmon Eric Olson	Terry Johnson Don Lane Matthew Moir Gabe Sam Herman Savikko	Karla Bush (ADFG)
California	Donald K. Hansen Thomas Harman John McCamman	Jim Caito Robert Fletcher Mike McCorkle Aaron Newman 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 Jeff Feldner Betsy Johnson	Wayne Butler Steve Fick Liz Hamilton Paul Heikkila Rod Moore Brad Pettinger Frank Warrens	Caren Braby (ODFW)
Washington	Phil Anderson Brian Blake Harriet A. Spanel	Robert Alverson Mark Cedergreen Marion Larkin Irene Martin Bill Robinson Terry Wright	Michele Culver (WDFW)

MESSAGE FROM THE EXECUTIVE DIRECTOR

Randy Fisher, Executive Director

I am pleased to present the 2010 Annual Report of the Pacific States Marine Fisheries Commission. In this report, you will find detailed summaries of our activities and our progress in developing, managing and conserving the fishery resources of our member states.

In the past year, I represented the Commission at important meetings of the Marine Fisheries Advisory Committee which advises the Secretary of Commerce on all living marine resources. I also met with key members of Congress and the Administration on to discuss issues of importance to the states and the Commission as a whole.



Let's look at the important programs we pursued this year.

The *Recreational Fisheries Information Network (RecFIN)* transferred the employees' field sampling activities for the California Recreational Fisheries Survey (CRFS) to the California Department of Fish and Game on January 1, 2011, at their request. The Commission will continue to make CRFS catch and effort estimates in Portland and load them into the RecFIN database that houses the marine recreational catch of Washington, Oregon and California. Also, during the last quarter of the year, the new RecFIN database design was implemented and loaded onto the RecFIN website.

The *Northern Pikeminnow Management Program* which reduces predation by northern pikeminnow on juvenile salmonids had another successful season. Anglers hooked 173,112 of the voracious salmon eaters and took home over \$1.2 million. Research has shown that reducing the number of pikeminnow helps salmon and steelhead survival.

The *PIT Tag Information System (PTAGIS)* received the highest grade for meeting scientific review criteria on its proposal submitted to the 2010 Research, Monitoring and Evaluation Review" conducted by the Independent Scientific Review Panel and the Northwest Power and Conservation Council. PTAGIS staff continued with upgrading the database server platform while at the same time maintaining the existing system so as not to adversely affect researchers in any way. Along with a focus group, staff evaluated several leading web reporting vendors and decided on the best solution to be deployed next year. Staff have been planning an upcoming user conference to be held in January 2011 and have received an overwhelming response to it. This demonstrates the viability and importance of the PIT tag program.

The *Pacific Fisheries Information Network (PacFIN)* provided data on historical landings as well as providing support on data retrievals, analyses and review of NMFS' catch share calculations for the West Coast trawl rationalization/TIQ program. This data will be used to provide the fleet with Quota Shares and Quota Pounds information. In addition, PacFIN Seattle and Portland staff prepared for the expansion of the Catch Shares program and the increased duties to accommodate the requirements for the newly expanded Catch Share observer program. This will include increased training classes, gear and computer purchases, and deployment. To offset these costs, the various programs pooled resources to eliminate any gear duplication across the programs.

PacFIN staff provided historical landings data as well as support with data retrievals, analyses and review of the National Marine Fisheries Service's catch share calculations for the West Coast trawl rationalization/TIQ program. This information will be used to provide Quota Shares/Quota Pounds to the fleet. The PacFIN office also released a new web-based query tool that allows access by confidential users to PacFIN.

Portland and Seattle staff worked on the expansion of the Catch Shares program and the expansion of duties to accommodate the increased needs of the Catch Share Observer Program. This included additional training classes, gear and computer purchases, and deployment. To offset these costs, these programs pooled resources to eliminate any gear duplication across the programs.

PSMFC continued to develop and support the expansion software applications for the current *West Coast Electronic Fish Ticket Reporting and Compliance Monitoring Program*. E-ticket software is provided free to registered buyers in all three states and can capture data for any of the 27 West Coast tickets. A web portal was developed to simplify creation of reporting organiza-

tions and provide download access to software and updates. In addition, software was developed to simplify the installation process and automate the process for submitting the data. The submission updates shifted data access by email to a direct web-reporting process.

PSMFC continued supporting development and expansion of the compliance monitoring electronic reporting system to accommodate the increased number of monitoring reports. The older system was modeled to replicate the paper-based reporting structure. Significant improvements to the forms and reports were made to take advantage of the efficiencies offered by e-reporting. Staff worked with the Oregon Department of Fish and Wildlife (ODFW) to ensure tickets printed from this application were accepted in lieu of handwritten tickets. This provided further incentive for processors to adopt e-reporting, thereby eliminating the cost of printing and distributing fish ticket books to dealers involved in the program. Further, ODFW and PSMFC successfully tested the delivery of e-reported fish tickets to ODFW as a first step in moving processors in Oregon to paperless reporting of landings.

Staff also worked with the Washington Department of Fish and Wildlife (WDFW) to secure approval to print their Marine Fish Receiving ticket. This is the primary ticket used to capture IFQ landings in Washington. We are working with WDFW staff to provide access to deliveries of e-reported fish tickets to WDFW.

In addition to receiving catch monitoring and fish ticket data, PSMFC completed a data reporting system that compares and reconciles fish ticket and report discrepancies. These catch estimates are provided to the NMFS Vessel Account System which will give access to near real-time data to fishermen and co-op managers.

Staff from the *Alaska Fisheries Information Network (AKFIN)* and *Fisheries Economic Cooperative Data Program (EFIN)* developed reports that quantify annual catch landings and corresponding revenues for vessels that fish both in Alaska and on the West Coast. This required access to confidential landings data from AKFIN and PacFIN and programming expertise to combine various vessel identifiers – a problem that has stymied analysts for years. These reports are based on a new comprehensive vessel database that was created by AKFIN. In addition, EFIN staff provided access to PacFIN data using Oracle Discoverer, a web-based GUI tool.

PSMFC continued as the Independent Third Party Collection Agent for the *BSAI Crab Rationalization and Amendment 80 Economic Data Report (EDR) Collection Programs*. The 2009 EDRs were collected for both projects and the data were entered into the database. Data validation audits on the submissions are being finalized by contracted certified accounting companies. Both projects have undergone separate data validation and verification audits to ensure data integrity as reported by the fleet.

The *West Coast Groundfish Observer Program* provides accurate accounts of total catch, bycatch, and discard associated with different West Coast fisheries and fish stocks, which are important to stock assessments and the management of groundfish stocks. PSMFC assisted with training observer classes to ramp up the number of observers for the catch share program. In addition, we purchased gear and assisted NMFS personnel with planning and organizing the new catch share observer program. For this year's program, 62 catch share observers were ready for deployment in the catch share fishery.

The *Aquatic Nuisance Species Prevention Program* hosted its fourth "table-top" exercise to evaluate the *Columbia River Basin Interagency Invasive Species Response Plan: Zebra Mussels and Other Dreissenid Species*. It was held in collaboration with the U.S. Fish and Wildlife Service, the Washington Department of Fish and Wildlife, and 20 other state, federal and tribal participants. This mock eradication exercise responded to a hypothetical find of dreissenid adults at Two Rivers Marina in Lake Roosevelt. In addition, PSMFC also initiated hosting of a quagga/zebra mussel monitoring database and map for the Columbia River Basin states of Idaho, Washington, Oregon and Montana.

PSMFC's *Human Resources Department* moved to an online program for Benefits Open Enrollment, which saved employees valuable time and eliminated printing and mailing costs. A paperless personnel file process was instituted in which all personnel documents are kept in a secure virtual environment, freeing up office space and reducing the need for paper and file folders. We also changed the way work-related injuries are reported by moving to a triage reporting process. This process, which had zero cost to PSMFC, gives employees 24/7 access to qualified nurses who provide self-care options if necessary and eliminates the need for costly doctor's visits for minor injuries. We have also implemented a new recruiting system that feeds directly to the HR Information System. It allows for a fully integrated new hiring and I-9 reporting process.

NMFS contracted with PSMFC to carry out a two-phase *Yukon River Disaster Mitigation Program*. Phase One, which compensated commercial gillnet permit holders for losses in the 2007-2009 seasons, was completed this year by PSMFC staff with data analysis and support from AKFIN. AKFIN's analysis for Phase Two, which replaces gillnets used by commercial and subsistence users, has been completed and will be carried out in the first half of 2011.

During the year, the Commission staff was engaged in organizing and coordinating several meetings. The Commission staff has gained a reputation for putting on a first class meeting. Of the five meetings held this year, the largest one was the PICES International Conference with over 500 attendees, held in Portland, Oregon, on October 21-30. Other meetings include the Coastal Pelagic Workshop in February, the Pacific Coast Steelhead Management Meeting in March, FISH Con in July, and the Energy Use in Fisheries Symposium in November.

I know you will agree that this Commission had a very successful and productive year. Thank you to everyone who participated and supported our work. Thank you.



ANNUAL BUSINESS MEETING SUMMARY

August 25, 2010

Chair Eric Olson, State of Alaska, called the meeting to order at 7:00 a.m. Commission members in attendance were: Cal Groen, Director, Idaho Department of Fish and Game.

Joe Stegner, Idaho State Senator

Jeff Feldner, Public member from Oregon

Ed Bowles, Administrator, Fisheries Division, Oregon Department of Fish and Wildlife

Bryce Edgmon, Alaska House of Representatives

Eric Olson, Public member from Alaska

Sue Aspelund, Deputy Director of Commercial Fisheries, Alaska Department of Fish and Game

John McCamman, Director, California Department of Fish and Game

Tom Harman, California State Senator

Don Hanson, Public member from California

Michele Culver, Coastal Regional Director, Washington Department of Fish and Wildlife, representing Phil Anderson

Harriet Spanel, Public member from Washington

Brian Blake, Washington House of Representatives

The Commission unanimously approved the Financial Statement and the 2009 Annual Business Meeting Summary.

The Commission acted on and unanimously approved a block of previously adopted resolutions, with some changes, noted in bold, including:

AQUATIC INVASIVE SPECIES

Many Western states have moved beyond awareness to implementation of quagga and zebra mussel control measures. The most effective way to control the current spread requires coordinated state and federal efforts. PSMFC urges mandatory decontamination of watercraft and other equipment at known locations of quagga and zebra mussel infestations, as well as at other infested federal facilities. The PSMFC directs PSMFC staff to work with the Western Association of Fish and Wildlife Agencies (WAFWA) Invasive Species Subcommittee and other entities to coordinate interstate implementation of individual state plans and programs. PSMFC encourages the states to adopt a feedback program to determine the efficacy of decontamination efforts and monitoring programs, including PSMFC staff coordination of region-wide monitoring information. In addition, PSMFC **should** support federal funding for quagga and zebra mussel **and other species, inspection, detection and potential for eradication. States with existing inspection programs should receive funding based on demonstrated need. Support includes investigating the development of a regional vessel tracking program.**

OCEAN ACIDIFICATION

The member states of the PSMFC **should** support **new and continued** funding for research on ocean acidification and its potential impacts to the coastal and marine ecosystems and fisheries of the West Coast and the North Pacific **up to and including the Beaufort Sea**. We would also encourage the research be extended further north through the Gulf of Alaska and the Bering Sea. In addition, the member states encourage collaboration and utilization of West Coast and Alaska universities' expertise and research capabilities. **PSMFC encourages policy makers to encourage efforts to reduce CO2 emissions.**

OCEAN ENERGY PROJECTS

PSMFC actively supports the states' involvement in and representation of states, **tribal, and stakeholders'** interests in federal agency renewable energy project development processes.

PACIFIC COASTAL SALMON RECOVERY FUND

PSMFC recognizes the significant contributions of the Pacific Coastal Salmon Recovery Fund (PCSRF) in promoting salmon recovery and sustainability in Alaska, California, Oregon, Washington, and Idaho and in promoting the recovery and sustainability of salmon and steelhead stocks. PSMFC urges NMFS and Congress to provide enhanced PCSRF funding in future budgets using \$90 million as the minimum. In addition, PSMFC does not support diminishment of PCSRF funding in the NOAA budget to support either current or new legislative or Executive Policy initiatives. PSMFC supports continued state-managed competitive processes to allocate PCSRF funds.

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).

NATIONAL MARINE SANCTUARY ACT

PSMFC opposes the National Marine Sanctuary Program management of fisheries and fishing resources within any national marine sanctuary.

The Commission also acted on several new issues raised by the individual member states. These included:

VESSEL LIABILITY LEGISLATION

PSMFC recommends that recreational fishing vessels and commercial fishing vessels be exempted from the changes to the nation's vessel liability laws proposed by S. 3600. PSMFC also recommends that hearings on the impacts of S.3600 be held in the Senate Commerce Committee prior to any consideration of S. 3600 by the full Senate.

The resolution was adopted with a vote of 3-1 with Alaska abstaining and Idaho voting no.

NATIONAL OCEAN POLICY IMPLEMENTATION

It was noted that this issue was related to a new issue raised by Alaska, Updates on Implementation of Ocean Policy, which was incorporated into this resolution.

Effective implementation of the National Ocean Policy and Task Force recommendations requires a science-based, transparent public process that balances long-term conservation and sustainable use of our ocean resources. PSMFC directs staff to track this issue, provide updates, help ensure coordination among States, pursue funding for engagement and implementation, and help ensure Federal recognition of successful State efforts underway or planned. Further, PSMFC requests the National Ocean Council recognize the legal jurisdictions and capacities/capabilities of the coastal states, regional fishery management councils, and tribal governments, and appropriately consult and coordinate with these bodies in the implementation of the national policy. In addition, PSMFC asked staff to provide updates as necessary when key developments occur.

The resolution was adopted unanimously.

RESTORATION ACTS

Columbia River Basin Restoration Act of 2010 (S. 3550), San Francisco Bay Restoration Act (S. 3559), and Puget Sound Restoration Act of 2009 (S. 2739) authorize funds at a 50 percent match for developing comprehensive plans, programs and projects to implement the plans.

The Commission voted to take no position on this resolution because it did not have adequate information to make a decision. The Commission recommended that each state address these restoration acts within their state.

The vote was unanimous.

STOCK ASSESSMENT FUNDING REQUEST

PSMFC supports increased funding for the stock assessment line item in the NOAA budget with emphasis on those species which are critical to the West Coast, including Alaska, fisheries.

The resolution was adopted unanimously.

LOAD LINE REQUIREMENT UNDER COAST GUARD AUTHORIZATION BILL

PSMFC opposes load line requirements for commercial fishing vessels as currently required by the House Coast Guard Authorization Bill and should direct its lobbying efforts to convey this position to Congress.

The Commission voted to take no position on this resolution because it did not have adequate information to make a decision. The Oregon Commission members stated that they will work with PSMFC staff to distribute the information from the Coast Guard Authorization Bill to Commission members.

The vote was 4-1 on the motion to not adopt the resolution, with Oregon voting no on the motion.

GENETIC STOCK IDENTIFICATION (GSI) PROGRAM COORDINATION

The member states of the PSMFC recognize the utility of salmon and steelhead GSI working in conjunction with the existing coded wire tag stock identification system. The rapidly evolving set of GSI tools has resulted in methodological differences and various databases across current sampling programs in the region. PSMFC supports a coordinated and collaborative Alaska to California, including the Columbia River Basin, genetic sampling and stock identification and monitoring program.

The resolution was adopted unanimously.

FEDERAL FUNDING FOR NORTH PACIFIC FISHERY MANAGEMENT COUNCIL OBSERVER PROGRAM

Unlike other regions, the North Pacific has an observer program that has been historically funded almost entirely by industry. PSMFC is requesting new funding for FY 2012 that would help the North Pacific Fishery Management Council restructure and fund its observer program.

The resolution was adopted unanimously.

INCREASED FUNDING FOR ARCTIC RESEARCH AND MANAGEMENT

Given the national and international significance of the Arctic region, PSMFC encourages new funding for Arctic research and management.

The resolution was adopted unanimously.

MITCHELL ACT FUNDING

PSMFC supports continued and enhanced Mitchell Act funding and a continued commitment to this historic mitigation agreement.

The resolution was adopted with a 4-0 vote, with California abstaining.

ENFORCEMENT COORDINATION AND FUNDING

In recognition of the importance of a strong, collaborative and coordinated approach between state law enforcement and NOAA's Office of Law Enforcement, PSMFC will support increased funding for West Coast and Alaska joint enforcement agreements and continuation of current approaches for utilizing enforcement committees through the Regional Fishery Management Council process.

The resolution was adopted unanimously.

OTHER BUSINESS

The State of California brought up two issues. The first was a suggestion for a Commission subcommittee which would review the financial statements and budget in more detail prior to the business meeting. Sue Aspelund noted that the Executive Committee, in the past, has reviewed the budget in more detail and suggested formalizing the Executive Committee to do that rather than setting up a new committee. Randy Fisher responded that PSMFC staff would be happy to review the budget with the Executive Committee and mentioned that the new Commissioner Webpage will contain the budget and financial statements which will be fully accessible to Commission members.

The second issue was a suggestion to reduce the amount of paper produced for this meeting by establishing a goal to reduce the Commission's carbon footprint by 25 percent next year.

Commission members also thanked Randy and Commission staff for a successful meeting.

The Pacific States Marine Fisheries Commission's 2010 Annual Business Meeting was adjourned at 8:40 a.m. The 2011 Annual Meeting is scheduled for August 28-31, 2011 in Portland, Oregon.

ANNUAL AWARD RECIPIENT

The Pacific States Marine Fisheries Commission presents an annual award that honors an individual, agency, or organization from the host state for outstanding contributions in support of Pacific Coast marine fisheries resources.

The Pacific States Marine Fisheries Commission is pleased to present the 2010 Award to:

CLEM TILLION



Mr. Tillion has had a long history and career in Alaska's commercial fisheries. Beginning in the late 1940s, he fished and packed crab and shrimp, was a salmon seine and gillnet fisherman in Cook Inlet, and hunted seals near St. Augustine. He was also a licensed tug boat captain and owner and operator of the M/V Stormbird, which carried freight and operated charters and tours. His distinguished political career included serving in the Alaska House of Representatives from 1962 to 1974 and in the State Senate from 1975 to 1980.

As an advocate for Alaska's fisheries, Mr. Tillion served as a negotiator with Japan and the U.S. on the Bartlett Bill extending U.S. jurisdiction from three to twelve miles; as an advisor to the U.S. State Department on fisheries; and as an appointee to both the National Advisory Committee on Oceans and Atmosphere and the Marine Affairs and Fisheries Committee for NOAA. Mr. Tillion was also a charter member of the North Pacific Fishery Management Council beginning in 1976; served as its chair from 1979-1983; and was appointed again in 1994 for an additional two years. From 1982 to 1984, he was Alaska State Director of International Fisheries and External Affairs. He served as Special Assistant on Fisheries to Governor Hickel from 1990 to 1994. He is a worthy recipient of the PSMFC Annual Award for 2010.

IN MEMORIAM



SENATOR TED STEVENS, ALASKA
1923-2010



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 comprised of Alaska State and federal commercial fisheries data. 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.

More specifically, AKFIN-SC reports catch data, harvest and value from commercial fisheries in Alaska using the best available data from data source agencies. Once these data are incorporated into its system, AKFIN reports information from several critical perspectives, which are used to identify and quantify impacts related to changes in fisheries management. These include species, area, gear, vessel, processor, community, and fishery participants by season.

A summary of work completed by the AKFIN-SC in 2010 include:

NPFMC Data Requests: Below are highlights of work performed by AKFIN-SC for North Pacific Fishery Management Council (NPFMC) staff and agency analysts (organized by issue):

Bering Sea/Aleutian Island (BSAI) Crab Rationalization Program:

- Created brown king crab price query and dataset for *Western Aleutian Islands Golden King Crab Fishery Initial Review*.
- Created query and composed dataset for Crab Catcher Processor Revenues including Cooperative and Company information.
- Developed queries and composed datasets for *BSAI Crab Rationalization 5-year Review*.
- Update dataset and create new queries for *Leasing practices in North Pacific fisheries Bering Sea and Aleutian Island crab fisheries*.
- Created crab price query and dataset for *Exemption from Regional Landing Requirements*.

Gulf of Alaska Groundfish:

- Contributions to the compilation of the Gulf of Alaska (GOA) *Rockfish Pilot Program Initial Review* document:
 - Analysis and dataset for count of Kodiak processors from State of Alaska Commercial Operators Annual Report
 - Updated analysis and dataset by breaking out Head & Gut and Whole for table 2-28 and breaking out Rockfish from Other for table 2-40
 - Analysis and dataset for Amendment 80 LLP landings in Western Gulf and West Yakutat in the Month of July
 - Analysis and dataset for fixed gear weight posted of retained targeted rockfish in the central gulf
 - Analysis of license transfer dates
 - Analysis and dataset of rockfish processed by port
- Created queries, datasets and tables for Tables 4 to 7 on the *Apportionment of BSAI Pacific Cod Sector Allocations Between BS and AI areas* discussion paper.
- Created Fish Ticket and Blend queries and datasets with documentation regarding the trawl modification supplement for “Trawl Sweep Modification in the Bering Sea Flatfish Fishery.”
- Created queries and datasets to replicate five tables in “Establish Aleutian Islands Pacific Cod Processing Sideboards”.
- Created queries and datasets for tables 7, 8, 9, 11, and Pacific Ocean Perch (POP) Western Gulf Vessels in A80 Sideboard Discussion paper.
- Created query and composed dataset for 2008 Pacific Cod (PCOD) Initial Regulatory Flexibility Analysis (IRFA) analysis used in relation to the *ALLOCATION OF PACIFIC COD AMONG SECTORS IN THE WESTERN AND CENTRAL GULF OF ALASKA*.
- Created query and composed dataset of Limited Entry activity in all areas in association with *GOA Rockfish Pilot Program Final Review*.
- Convert SAS code to SQL and refresh and validate 15 output tables for *GOA PCOD Sector Split*.
- Created query and composed dataset for retained-discard and two, unallocated species and prohibited species catch (PSC) for *GOA Rockfish Pilot Program Final Review*.
- Submitted IRFA analysis for qualified rockfish vessel.

Bycatch Reduction – Improved Retention/Improved Utilization (IR/IU):

- Contributions to the compilation of the *Chinook Salmon and Chionoecetes Bairdi Crab Bycatch in Gulf of Alaska Groundfish Fisheries* document:
 - Dataset with Total days fished
 - Vessel dependency dataset for State statistical areas in area 630
 - Dataset with total GOA catch
 - Observer dataset with gravidity, length, and sex of samples with targets
 - Dataset with Fish Ticket days fished by State statistical area
 - Analysis of target species and observers
 - dataset with extrapolated weight in area 630
 - dataset of wholesale revenues for Kodiak processors
- Created queries and datasets for five data tables for GRS Implementation Review.
- Created queries and datasets for Chinook Discussion Paper.
- Created queries and datasets for “Preliminary Review Pribilof Islands blue king crab rebuilding”.

Protected Species:

- Created query and dataset for ex-vessel pricing in 541, 542, and 543 for Steller Sea Lion (SSL) Biological Opinion (Biop) review.
- Created query and dataset for wholesale pricing in 541, 542, and 543 for SSL Biop review.
- Created query and dataset for homeport of vessels landing PCOD and Atka Mackerel in Aleutian Island (AI).
- Created query and dataset for Permit owner addresses for PCOD landings in AI.
- Created query and dataset for catcher processor fixed gear PCOD landings in BSAI.
- Create queries and datasets for GOA Halibut PSC
- Created vessel diversification query for vessels targeting atka mackerel in 542 and 543 SSL Biop review.
- First Wholesale Price query for atka mackerel in BSAI for SSL Biop review.
- Created vessel diversification query for vessels targeting pacific cod in 542 and 543 SSL Biop review.
- Updated vessel diversification query to include state revenue for vessels targeting pacific cod in 542 and 543 SSL Biop review.

Other Requests:

- Contributions to the compilation of the *Regulatory Amendment to Revise Groundfish Maximum Retainable Amounts (MRA) in the Arrowtooth Flounder Fishery in Association with the BSAI FM* document:
 - Dataset of Greenland Turbot landings in the BSAI
 - Dataset to support IRFA analysis
 - Analysis to determine A80 vessels
 - Analysis and datasets to determine amounts of Kamchatka Flounder in Arrowtooth Flounder complex
 - Analysis and dataset showing Arrowtooth catch by target and processing sector
- Created query, composed dataset and created table for NOAA Proposed Rule 50 CFR Part 679 on Small Entity vessel counts based on Gear and Harvest Sector.
- Researched and created view to identify Coops.
- Update dataset and create new queries for *Leasing practices in North Pacific fisheries Bering Sea and Aleutian Island crab fisheries*.
- Submitted the 2009 Fisheries of the U.S. (FUS) dataset. The 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.
- Developed Gross Revenues by Vessel Application. The resulting datamart is a summary of total revenues, by vessel used by NMFS Alaska Region analysts in the Regulatory Flexibility Analyses to determine small and large entities.
- AKFIN-SC has provided support to the Yukon River Salmon Disaster Relief program. PSMFC was contracted to administer this program and AKFIN provided the data and analysis to complete phase one, which was to compensate commercial gillnet permit holders for losses in the 2007 - 2009 seasons.

Oracle Business Intelligence (BI) Reporting Tool: In 2009, AKFIN-SC implemented Oracle BI, a web-based ad-hoc reporting, query, and analysis tool. Oracle BI provides authorized users access to a secure, one-stop-shop solution, containing Alaska State and federal commercial fisheries data. Although a majority of staff time continues to be spent programming custom data requests, over the past year AKFIN-SC has directed more effort into enhancing departmental report pages within Oracle BI. This has required a collaborative effort between users and the development team. The results have been a more useful tool, with benefits to a broader audience, and the framework for future reporting needs.



AQUATIC NUISANCE SPECIES

Aquatic nuisance (or invasive) species (ANS) are non-indigenous species that threaten the diversity or abundance of native species or the ecological stability of infested waters, or commercial, agricultural, aquacultural or recreational activities dependent on such waters. ANS include non-indigenous species that may occur in inland, estuarine and marine waters and that presently or potentially threaten ecological processes and natural resources. In addition to adversely affecting activities dependant

on waters of the United States, ANS adversely affect individuals, including health effects. One important criterion that the Pacific States Marine Fisheries Commission (PSMFC) uses to judge a species as a “nuisance” is its ability to harm commercial and recreationally important fisheries.

Highlights in 2010, for the Pacific States Marine Fisheries Commission’s **Aquatic Nuisance Species (ANS) Program** include:

1. The PSMFC and USFWS continue to lead the effort for zebra and quagga mussel rapid response planning Columbia River Basin. In 2008, The “*Columbia River Basin Interagency Invasive Species Response Plan: Zebra Mussels and Other Dreissenid Species*” was completed with the goal of coordinating 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. In October 2009, the plan was signed by the Province of British Columbia (other signatories include and the States of Oregon, Washington, Idaho, Montana, the USFWS and Columbia River Inter-Tribal Fish Commission). The plan can be viewed at <http://100thmeridian.org/ColumbiaRT.asp>.
2. In September 2010, the Pacific States Marine Fisheries Commission and U.S. Fish and Wildlife Service, in collaboration with the Washington Department of Fish and Wildlife and 20 other state, federal and tribal participants held a fourth “table-top” an exercise in Spokane, Washington to evaluate the *Columbia River Basin Interagency Invasive Species Response Plan: Zebra Mussels and other Dreissenid Species* and the Incident Command System Planning Process. The mock eradication exercise responded to a hypothetical find of dreissenid adults (no veligers) at Two Rivers Marina in Lake Roosevelt. Participants then divided into two groups, the Incident Management Team (IMT), and the MAC (multi-agency coordination) group and Support Staff. The IMT’s objective was to develop the Incident Action Plan for the first Operational Period of response to the infestation, while the Coordination and Support Staff focused on the treatment options. The exercise concluded with the presentation to the MAC group, a hot-wash, and closeout. See the after- action report at [http://www.100thmeridian.org/Columbia_RBT.asp]
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 2010, PSMFC continued trainings that were conducted throughout the Western United States. To date, over 60 WIT Level One training courses have been delivered in 19 western states to a total of over 3,000 individuals representing over 80 different state, federal, local and tribal agencies and organizations. PSMFC also sponsors Level Two training delivered over two days at Lake Mead. This course focuses on actual field inspection and the decontamination of various types of quagga mussels infested watercraft leaving the lake. We have conducted 20 Level II trainings since 2007 and course graduates have trained thousands more of their own agency staff (including watercraft inspectors in Idaho, California, Washington and Oregon).
4. Uniform Watercraft Decontamination Protocols: The need for better coordination and consistency of protocols and standards related to preventing overland transport of zebra and quagga mussels on trailered watercraft is widely recognized and is one of the highest priority action items in the Western Region. To address this need, in 2009, the PSMFC completed the document, *Recommended Uniform Minimum Protocols (UMPs) and Standards for Watercraft Interception Programs for Dreissenid Mussels in the Western United States*. This document, adopted by the Western Regional Panel on Aquatic Nuisance Species,

now serves as a regionally accepted manual for watercraft decontamination. In 2010, we began a project to produce an updated version of this document. For further information, go to: <http://www.aquaticnuisance.org/wit>.

5. Providing administrative support and staffing for numerous ANS inter-jurisdictional efforts, including the Columbia and Missouri River Basin 100th Meridian Initiative Groups; the Pacific Ballast Water Group; and the Green Crab Technical Group.
6. Recreational watercraft are the most likely vector by which zebra/quagga mussels will be spread into other western watersheds. PSMFC's (and cooperating agencies) AIS information and education campaign targets recreational anglers, boaters, marinas, enforcement personnel and others on the zebra/quagga mussel threat. For the past 11 years, PSMFC has attended sport and commercial fishing shows throughout the region (e.g., Boise, Portland, Seattle, Sacramento) exhibiting its ANS booth (See figure 4), distributing information to those most likely to come into contact with ANS. A highly popular zebra mussel education and watercraft inspection and decontamination training video "Don't Move a Mussel" was produced in 2008, with 5,000 copies distributed to date. In 2011, we will be remaking this video. In 2010, we also released an educational video targeting seaplane pilots, including methods on how they can decontaminate their planes to reduce the spread of invasive species. Also, in 2010, PSMFC, with funding from the USFWS, began a project to work with boat hauler companies, as they have come in contact with contaminated watercraft on a regular basis.
7. For the past eight years, PSMFC has partnered with Portland State University in a zebra mussel monitoring program. The program includes a volunteer monitoring project in 12 western states, and 16 agencies collecting plankton samples (in search of larval mussels) at 210 locations in 10 western states. PSU performs laboratory analysis on water samples. Beginning in 2010, PSMFC and PSU began partnering with the US Army Corps of Engineers to expand monitoring at Corps projects in the Columbia River Basin. In 2010, PSMFC also began to host a dreissenid monitoring database and map for the Columbia River Basin states of Idaho, Washington, Oregon and Montana. For more information, to: <http://crbans.psmfc.org/monitoring-data/monitoringforaquaticanimals/zebraquaggamussel2010.html>
8. The PSMFC ANS website continued to add new features, including a new section on economic impacts of ANS that can be found at <http://www.aquaticnuisance.org/resources/ais-economic-impacts>



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 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 harvesting and processing components of West Coast and Alaska fisheries.

In 2010, EFIN worked on:

- **2009 Fuel Report:** Continued collection and maintenance of the West Coast and Alaska monthly fuel price survey. An annual summary was sent out to survey participants and other interested parties.
- **Web page maintenance:** Continued to collect data and update the EFIN web page. Updates include 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 2009-2010 season that was updated with reports from California, Washington and Oregon.
- **Fish Ticket (FT)-Fish Ticket Line (FTL) monthly Statistical Package for Social Sciences (SPSS) table updates:** Continued download and creation of "user friendly" West Coast fish ticket tables for local PSMFC use.
- **Web page maintenance for:** "Bycatch characterization in the Pacific halibut fishery: A field test of electronic monitoring technology" Project.
- Several PacFIN reports have been recreated and tested using Oracle Discoverer to provide dynamic user friendly reports. The Discoverer Project was presented at the annual PACFIN meeting in Portland, OR.

Streamer Line project: As of December 31, 2010, 169 pairs of lines were shipped in 2010.

Alaska Crab Rationalization Program

Pacific States Marine Fisheries Commission (PSMFC) functions as the Independent Third Party Data Collection Agent (ITP-DCA) 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 provide data to aid in 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.

At the beginning of this program in 2005, historic Economic Data Reports (EDRs) EDRs were collected for the years 1998, 2001 and 2004. In each subsequent year, we have collected data using an annual EDR. Historical EDRs captured 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. The 2009 EDR was collected in June and July 2010. 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 2009 were required to submit an annual report.

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 AKT, LLC to conduct random and outlier audits on the 2009 annual EDRs. These audits are being 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.

Amendment 80 Economic Data Reports

In June 2006, Amendment 80 was adopted by the North Pacific Fishery Management Council (Council). The final rule implementing Amendment 80 was published in the Federal Register on September 14, 2007. This action allocates several Bering Sea and Aleutian Islands (BSAI) non-pollock trawl groundfish species among the trawl fishery sectors and facilitates the formation of harvesting cooperatives in the non-American Fisheries Act (non-AFA) trawl catcher/processor sector.

The Council adopted Amendment 80 to meet the broad goals of: (1) improving retention and utilization of fishery resources by the non-AFA trawl catcher/processor fleet by extending the groundfish retention standard (GRS) to non-AFA trawl catcher/processor vessels of all lengths; (2) allocating fishery resources among BSAI trawl harvesters in consideration of historic and present harvest patterns and future harvest needs; (3) authorizing the allocation of groundfish species to harvesting cooperatives and establishing a limited access privilege program (LAPP) for the non-AFA trawl catcher/processers to reduce potential GRS compliance costs, encourage fishing practices with lower discard rates, and improve the opportunity for increasing the value of harvested species; and (4) limiting the ability of non-AFA trawl catcher/processers to expand their harvesting capacity into other fisheries not managed under a LAPP.

The groundfish species in the BSAI directly affected by Amendment 80 include:

- Atka mackerel
- Aleutian Islands Pacific ocean perch
- Flathead sole
- Pacific cod
- Rock sole
- Yellowfin sole

In addition, Amendment 80 modifies the management of halibut and crab prohibited species catch (PSC) limits.

Pacific States Marine Fisheries Commission (PSMFC) has been designated by NMFS to be the Data Collection Agent (DCA) for the Amendment 80 EDR program. The first annual Amendment 80 EDRs were collected in June 2010 for the 2009 calendar year.

EDRs were mailed to catcher processors; 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 RSM McGladrey, Inc. to conduct audits on the 2009 annual EDRs. These audits are being 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 the data, standardized variables and conducted metric analysis to help describe the 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 2009 the PacFIN Office processed 556 datafeeds from eight data sources and responded to at least 126 requests-for-information. 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 activities in 2009:

LE Trawl Permit Data Requests

In support of the approaching Transferable Individual Quota (TIQ) program PacFIN staff developed retrieval programs for use by WDFW, ODFW and CDFG to allow them to respond to requests from individual Limited Entry Trawl permit holders for historical catch by permit.

Quota Species Monitoring (QSM) Subsystem

A change to the Quota Species Monitoring (QSM) program adding arid "UI" (unknown area) to the QSM area group (VNCLEK-MT) was implemented to accommodate lags in logbook area reporting. This enhancement assures inclusion of all landings where reporting is exclusive to this area group and individual area detail is not required. The QSM sub-system was also updated with Harvest Guidelines data for 2009 during this period.

Fisherman License data addition

Development work to obtain fisherman license data from Washington and California and include it in the PacFIN database was completed during this period. A new fisherman_license field was added to the Fish Ticket (FT) table. This task required modifications to various production programs and database tables and the source data specification. The FT table has been populated with historical data from WDFW and CDFG and both agencies are now providing this data item in their monthly datafeeds. The state of Oregon does not collect this data type and will therefore not participate.

At-Sea Whiting

An additional field to match USCG vessel codes to ADFG vessel codes was added to a materialized view from the source NMFS/AFSC NORPAC database. Modifications to accommodate this change were made to PacFIN export/import data acquisition software as well as the PacFIN NPAC4900 destination table on the prowfish server. This data system allows PacFIN to report on the Pacific Coast At-Sea Pacific Whiting fishery.

Federal Buy Back Program data

Work continued on longstanding price reconciliation issues between PacFIN dollar value estimates and buyer reports from the Federal Buy Back program. At issue is the difference in methodologies between price estimates to best value fisheries and price estimates to best estimate the actual cost to buyers involved in the Buy Back program. Work is continuing with PacFIN data providers to improve catch disposition coding in order to produce the best estimate possible of actual buyer costs in the targeted fisheries.

A secondary goal of this project is to identify discrepancies between PacFIN calculated revenues and Buyer calculated revenues that occurred which were not due to pricing. Other data issues, specific to state agency reporting protocols have also been addressed in an effort to provide the best available data in support of the Buy Back program.

Also, new software was developed during this period to include Pacific Coast At-Sea Whiting fishery landings data in the OMI Buy-Back Fee table in support of the Federal Buy Back program. Software development to estimate the value of the landings delivered to mother ships was initiated.

PacFIN Web Updates

A project to re-develop the PacFIN website was completed during this period. The programming language was utilized in conjunction with XHTML to increase efficiency and decrease the number of web pages that need to be maintained. Security has been increased and individual, password protected accounts have been created to allow for more directed access. The website has been launched for public use with good reviews. A website procedures document has been written to assist with its upkeep. Additional features are under development.

The Web Access system that allows approved users to extract data from the database using a web application was re-developed using SQL*Net. This task was driven by changes to the host web server and included the conversion of all extract html query forms and modifications to web access code lists and stored procedures. Development and testing of web-based retrievals using the Oracle Discoverer tool continued during this period.

NPAFC annual reporting modifications

The program used to produce annual catch summaries for North Pacific Anadromous Fish Commission (NPAFC) reporting was enhanced to include a new reporting category for Sharks, Skates and Dogfish.

Internal procedures documentation

The PacFIN production "Data Procedures" document was re-written to update procedural changes and additions.

A project to catalog and describe over 4000 Oracle SQL and PL/SQL scripts was initiated during this period. This effort was undertaken at the request of the Pacific Coast Fisheries Data Committee (PCFDC) from the November 2008 PCDFC meeting.

Training

PacFIN staff continues to pursue training opportunities to better serve the PacFIN user base including HTML courses, independent study of the PHP programming language and learning and working with the Oracle Discoverer tool.

Meetings and Seminars

The Annual Pacific Coast Fisheries Data Committee (PCFDC) meeting was held November 9th and 10th in Portland, OR. PacFIN staff attended and made presentations.

Internal System Upgrades

A number of internal system upgrades related to maintaining the success of current production applications were performed including code list change monitoring, database performance improvements, new production automation and retrieval scripts, new documentation and metadata. Jointly contracted services were established during this period to provide database administration (DBA) support for the AKFIN/PacFIN projects, including: disaster recovery; Oracle software maintenance services to apply critical patches and database upgrades when necessary; database monitoring to include regularly scheduled checks of logs; backup procedures; and statistics and consultation regarding performance, upgrades and database tools and functionality.



PIT Tag Information System
Columbia Basin | ptagis.org

The **Columbia River PIT Tag Information System (PTAGIS)** is a data collection, distribution and coordination project. Over 2.8 million juvenile salmonids were marked with passive integrated transponder (PIT) tags for the 2010 out-migration through the Columbia and Snake rivers (Table 1). The proportions of salmon and steelhead tagged in 2010 were similar to

those species tagged for the 2009 migration year (Table 2). In 2010, more than one million unique tagged fish were detected at one or more locations, generating 1.5 million detection events (Table 3). One fish can generate many interrogation records as it passes through multiple PIT tag antennas at one or more detection sites. Over 10.6 million interrogation records were reported to PTAGIS in 2010 (Table 4).

TABLE 1

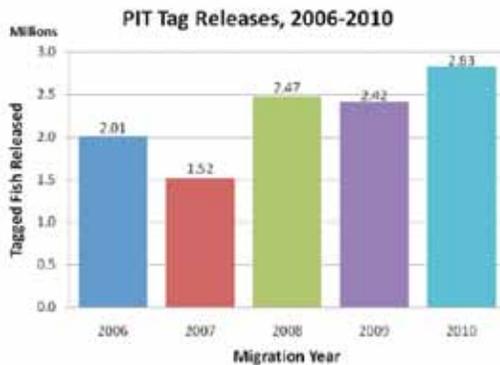


TABLE 2

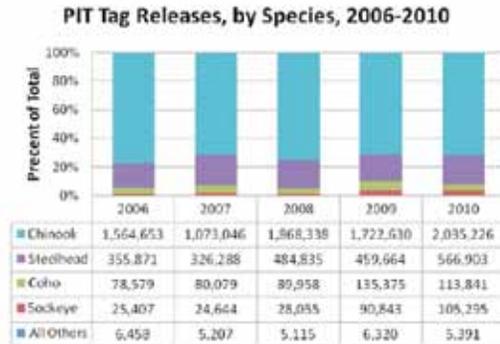


TABLE 3

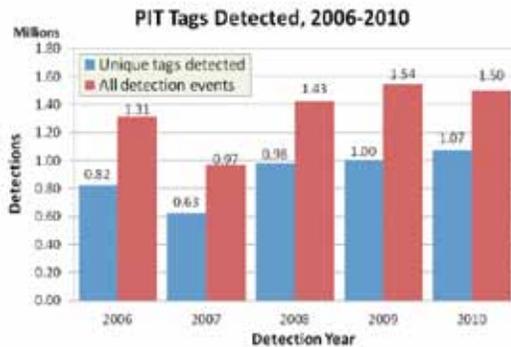
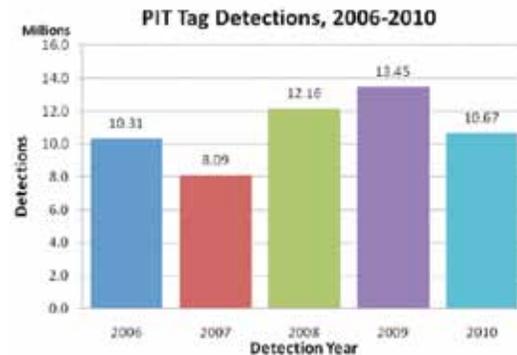


TABLE 4



PTAGIS continued to develop and maintain the software and systems use to collect and distribute PIT tag data. PTAGIS operated and maintained 20 interrogation sites with more than 380 PIT tag detectors. In 2010, the PTAGIS project implemented 15 Separation-by-Code projects for 8 agencies. PTAGIS distributed 1.3 million tags to 65 BPA Fish and Wildlife Projects. Also in 2010, 342 registered account holders accessed the PTAGIS database. These users completed almost 15.7 thousand queries, retrieving nearly 1.6 billion data records.



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

In 2010:

The state of California and PSMFC conducted the CRFS in California in 2010. 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 2010, where sampling occurred from March through October in 2010. The Oregon Shore and Estuary Boat Survey (SEB) was not conducted in 2010 because of insufficient funding.

The state of Washington conducted their Ocean Boat Survey and the Puget Sound Boat Survey in 2010. 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 utilized 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. In Washington state, a pilot survey was conducted in 2010 to look at dual frame methodology for estimating effort. This survey was funded by the NMFS Marine Recreational Information Program (MRIP).

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]. Beginning in late 2010, the RecFIN website completed a revision with a new look 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. Catch and effort estimates for all three states of CA, OR & WA can be accessed on the RecFIN website at: www.RecFIN.org.

In 2010, two other Marine Recreational Information Program (MRIP) pilot surveys were funded by NMFS on the Pacific coast and the funds were passed through the RecFIN grant. In California funding was provided for a Shark Survey design in Southern California and Albacore sampling design for an upgraded CPUE survey to assist with stock assessment for California, Oregon and Washington. The design of these two surveys was completed at the end of 2010. Proposals for testing of the designs have been submitted to the MRIP Operations Team for funding in 2011.



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 (PSC) 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 PSC format on a regular basis. The RMPC maintains the Regional Mark Information System (RMIS) database and coordinates the acquisition and validation of these data from the various agencies. Funding is provided by the U.S. Fish and Wildlife Service, PSC, NOAA Fisheries and Bonneville Power Administration (BPA). Over 50 million coded wire tagged fish are released Pacific Coast-wide every year, with approximately 1,200 different coded wire tag codes.

Categorical Review

RMPC staff participated in the Independent Scientific Review Panel (ISRP) Research, Monitoring, and Evaluation and Artificial Production Category Review of BPA funded programs, submitted data and information through BPA's online Taurus system, and gave a presentation of the CWT recovery program to the review panel. The ISRP reported that this project meets all their scientific review criteria. This is an important process by the Northwest Power and Conservation Council to secure future BPA funding for this program.

Coded Wire Tag Overview Paper

The *Overview of the Coded Wire Tag Program in the Greater Pacific Region of North America* manuscript authored by George Nandor, Jim Longwill and Dan Webb was published by the Pacific Northwest Aquatic Monitoring Partnership (PNAMP) as part of the *PNAMP Special Publication: Tagging, Telemetry and Marking Measures for Monitoring Fish Populations, a compendium of new and recent science for use in informing technique and decision modalities*. The paper provides a brief history and explains how the CWT program is implemented and used to conduct salmon research and manage salmon fisheries off the West Coast. Copies of the paper are available from the RMPC web site at: <http://www.rmpc.org/publications.html>

Data Validation

The CWT data load programs were upgraded to perform more rigorous cross-table checks of tag releases in format version 4.1 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

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. Also significant effort was put into adding GPS coordinates (latitudes and longitudes) for land based release and recovery locations. This provides for more accurate mapping of the data.

RMPC Web Site

New updated information has been added to the RMPC website. Fifty-six years of the proceedings of the Northwest Fish Culture Conference are now available, scientific papers related to the use of coded wire tags have been added and other relevant material is added as requested or the need arises. See: <http://www.rmpc.org>

Missing Recovery Data

Missing freshwater CWT recovery data for certain areas have been identified. The RMPC continues to work closely with the responsible agencies to coordinate the filling of those data gaps.

Annual Mark Meeting

The 2010 Mark Meeting was hosted by the Idaho Department of Fish and Game in Boise, Idaho. Twenty-six people from around the region attended the meeting. Key issues included discussions and updates on coast-wide mass marking, coded wire tagging and selective fisheries activities. Other issues discussed: implementation of the new version 4.1 format of the database; guidelines for submitting data description files; information on RMIS usage by agencies; PSC Data Sharing Committee activities; PSC Selective Fisheries Evaluation Committee findings; new Pacific Salmon Treaty funding to Canada and the States for

CWT program improvements; results of CWT detection wand studies on Chinook done by Canada and by the NW Indian Fisheries Commission. Also, each participating agency gave an update on their marking and tagging activities in the region. NOAA Fisheries-Alaska staff gave an update on high seas CWT sampling and recoveries in the by-catch of Alaskan Pollock fisheries. Northwest Marine Technology staff gave a presentation on product updates and some staff changes.

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 CWTs 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 fish management agencies to make science based decisions regarding populations of salmon and steelhead in the region. Staff also assisted research biologists in the region to acquire the CWT data they need for their projects.





The **StreamNet Project** continued to provide fish related data from the region's fish and wildlife agencies in a standardized and georeferenced format to data users in the Pacific Northwest. The project is funded by Bonneville Power Administration through the Northwest Power and Conservation Council's (NPCC) Fish and Wildlife Program. Separate portions of the project are now administered by PSMFC and the Columbia River Inter-Tribal Fish Commission, but the project continued to function as a single project.

Routine activities in 2010 included acquisition, standardization, georeferencing and dissemination of updated fish data for data sets that fit our defined data exchange formats; upload and dissemination of non-standardized data sets through the Data Store portion of the StreamNet website; ongoing maintenance of static regional scale data sets like the Protected Areas data set for the NPCC; coordination with and data service provision for various regional scale entities; and project administration. Declining project capabilities due to long term level funding continued to plague two project partners, requiring greater prioritization of data acquisition efforts and decreased data acquisition. Some specific data sets may have to be updated biennially rather than annually in the future.

System development and maintenance continued during the year, including system software upgrades as needed, increased use of the virtual server environment, and ongoing work toward developing a new data query system. A key development was deployment of an online submission tool for people to upload data sets to the Data Store. The application meets FGDC metadata standards and also pre-loads project information from the Taurus database system for data originating from BPA funded projects.

Coordination and cooperation with regional entities increased this year. StreamNet took on a significant role in the Coordinated Assessments project being conducted by the Columbia Basin Fish and Wildlife Authority (CBFWA) and the Pacific Northwest Aquatic Monitoring Partnership (PNAMP). StreamNet's role included participation in the planning and oversight group, leading creation of a Data Exchange Template and Data Analysis Flow Diagram template for use in sharing three specific indicators and supporting metrics, and in hiring and managing temporary staff to locate and obtain the requisite data within the state and tribal fisheries programs in the Columbia Basin.

StreamNet-supported staff in several partner agencies continued assisting development of internal database systems. These systems are increasing data management efficiency to support agency programs and also allow increased use of technology to automate conversion of agency data into the data exchange format and speed up the data upload process to StreamNet. This represents ongoing progress toward assisting our partner agencies in building data management capacity as outlined in our strategic plan, with the goal of increasing the efficiency of data transfer to StreamNet, thus allowing our efforts to expand to additional types of data, including derived indicators of interest to the Coordinated Assessments project of CBFWA and PNAMP. We have also instituted direct data feeds through XML-based web services, and we will attempt to assist agencies to take advantage of this more automated means of acquiring data.

Project staff also cooperated with several external projects that may ultimately provide data or data management capability to StreamNet, including a rotary screw trap database development project in the Central Valley of California and a project to document occurrence and status of coastal cutthroat trout.

StreamNet remains committed to working with fisheries agencies to improve data sharing on a wide scale in response to regional issues like reporting progress under the FCRPS Biological Opinion, reporting of high level indicators, and coordinated monitoring and evaluation of fisheries resources.



CALIFORNIA DATA AND TECHNICAL ASSISTANCE PROJECTS

The California Cooperative Fish and Aquatic Habitat Data Program (**CalFish**) website (www.calfish.org), a multi-agency cooperative fisheries information site, 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. 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. Due to salmon fishery closures in 2008, an abbreviated sampling program was conducted.

The **California Passage Assessment Database** (PAD) locates and documents anadromous fish passage “sites” in all California coastal watersheds. 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.

PSMFC continued 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 meet the goal of producing self-sustaining Coho populations in the future.

PSMFC’s GIS and Data Specialists assisted the CDFG Marine Region and the Resource Legacy Fund Foundation 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 assisted 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) continued to assist CDFG with running video monitoring stations, fish traps, conducting salmon carcass surveys, and collecting biological data.

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**, by providing field technicians and research assistants to collect, compile, and analyze data and research on aquatic species, habitats, and natural communities.

PSMFC provided technical assistance and field staff for the **Coastal Restoration Monitoring and Evaluation** project. Staff monitored pending and completed coastal watershed restoration projects in California, collected habitat information, and compiled data. This information is used by managers to assess the success of restoration activities.

PSMFC's **Southern California Habitat Assistant** identified 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 continued to provide fisheries technicians in Mendocino County to assist in conducting a 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 assisted 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 worked with CDFG and the CDWR Head Lab to determine the **Age Structure of Central Valley Chinook Salmon Populations** by conducting scale analysis, assisted 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 assisted in successful completion of the third year of the **Central Valley Constant Fractional Marking Program**. The program is responsible for annually coded-wire tagging/adipose fin clipping 25 percent of the Fall Chinook salmon production in the Central Valley hatcheries.

At the **Coleman National Fish Hatchery**, PSMFC again 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 provided technical assistance to the **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 nearshore marine species.

PSMFC assisted 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 assisted the **Americorps Watershed Stewards Project** accomplish habitat restoration projects.

PSMFC worked 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. These plans are scheduled for completion in 2011.

PSMFC worked with the **Yuba County Water Agency, CDFG**, and other partners 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 assisted with **Constant Fractional Marking (CFM) at Iron Gate Hatchery** and provides staff and equipment to clip and tag 25% of all Chinook salmon released from the facility, which will provide critical harvest information to coastal Chinook life cycle monitoring programs.

PSMFC staff assisted the **USFWS Comprehensive Assessment and Monitoring Program** by providing statistical analysis and database development

PSMFC provided assistance to the **USFWS National Fish Passage Program** to inventory and prioritize barriers to anadromous fish migration on the state highway system in Shasta and Tehama counties.

PSMFC provided staff assistance to maintain the **Van Arsdale Fisheries Station** on the Eel River in Mendocino County.

PSMFC personnel assisted CDFG with the **migration of their web mapping technologies** from ArcIMS to an ArcGIS environment.

PSMFC assisted the CA State Coastal Conservancy in conducting an in-stream flow study in the **Big Sur River and estuary**.

PSMFC provided support to the Heritage and Wild Trout Program's **Acoustic surveys on the Yuba River**.

PSMFC assisted with the **Santa Ynez Watershed Assessment** as it documents the presence/ absence of steelhead, the habitat suitability, and restoration activities needed to facilitate the recovery of southern steelhead.

PSMFC provided assistance to complete the **Big Basin/ San Mateo Regional Area Spawning Ground Surveys** in order to estimate salmonid escapement in coastal streams.

Non-California projects (2010):

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

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

PSMFC provided personnel to assist the **IDFG Nampa Research Lab** with their fisheries research, field activities, and data management needs.

PSMFC provided technical and administrative support to implement the **IDFG Marking Program**.

PSMFC provided personnel and technical support to assist the **Lower Snake River Fish and Wildlife Compensation Plan** in managing hatchery data, and monitoring and evaluating hatchery efforts.

PSMFC provided personnel to assist with the implementation of fisheries management and research activities in the **IDFG Natural Production Section, Fisheries Management Section, and Eagle Fish Genetics Lab**.

COOPERATIVE AGEING PROJECT

The **Newport Ageing 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 the Northwest Fisheries Science Center (NWFSC) facilities. Age structures, collected from federal surveys and commercial catch, are the primary structures aged by this lab and are used to directly support U.S West Coast stock assessments. Age specific estimates of biomass, mortality and population trends are required to rigorously estimate the health of a fish stock. 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 2010, Newport Ageing Lab personnel:

- Supported 7 groundfish stock assessments.
- Aged 23,251 otoliths from 9 species of U.S. West Coast groundfish, including the rockfish - canary, darkblotched, Pacific Ocean perch and vermillion; the flatfish (sole)- Dover, English and petrale; and the roundfish - Pacific hake and sablefish. This includes the following types of ageing; production, double reads and training.
- Archived age structures collected from NWFSC programs, such as the At-Sea Hake Observer Program (ASHOP) and the groundfish trawl survey. This archive now encompasses 79 species and over 190,000 structures from 2003 to 2010. The lab also has a substantial collection of age structures from 1983 to 2002 from Alaskan Fisheries Science Center directed surveys (AFSC). This portion of our archive encompasses 13 species and over 52,000 structures.
- From the states, the lab processed 930 otoliths from California, 13,344 otoliths from Oregon and 1,835 otoliths from Washington.
- The lab began populating a database that tracks all data associated with a single specimen. The lab did not have a database or this means of tracking until 2010.
- The lab was involved in a collaborative project to determine the life history of vermillion and sunset rockfish. We finished ageing the vermillion and plan to begin ageing the sunset in early 2011. The age and growth data will be included in a larger research project that will ultimately end up in a paper that will be submitted for publication in a peer reviewed journal.
- Lab personnel coordinated and participated in otolith exchanges with Alaska Department of Fish and Game, Department of Fisheries and Oceans Canada, and Alaska Fisheries Science Center, NOAA Fisheries. Sablefish and Pacific hake were the two species exchanged. These exchanges help ensure that each lab is utilizing the same ageing criteria. This becomes even more critical when two or more labs contribute age data to a single stock assessment.



FISH HABITAT EDUCATION PROGRAM

The PSMFC Fish Habitat Program's goal is to protect habitat for salmon and other marine fish species. It works to support conservation and restoration activities by watershed councils, promotes essential fish habitat and ecosystem based management policies, and conducts watershed tours for decision makers. These programs are funded primarily by the Wallop-Breaux Sport Fish Restoration program managed by USFWS. Additional support for habitat conservation work comes from NOAA's National Marine Fisheries Service which supported interstate work on marine debris and participation on Pacific Fishery Management Council's habitat committee, and work with Pacific Marine Estuarine Fish Habitat Partnership, and other regional forums. The National Fish and Wildlife Foundation through NOAA's Marine Debris Program provides grant funding to support gillnet recycling work.

Watershed Restoration Support

PSMFC coordinated, on behalf of a multi-entity steering committee, the first meeting of the Pacific Marine Estuarine Fish Habitat Partnership (FHP). A FHP is a national program (see www.fishhabitat.org) with federal, state, and non-governmental support, which provides funding and support to focus attention on habitat restoration efforts for key species or areas and accelerate and assist project to restore and conserve habitat. The meeting held in Portland, Oregon in May 2010 was designed to further develop and focus this candidate partnership, developing mission and goals that would help aid and add value to existing partnerships through a regional focus. It also sought to identify priority needs and determine the geographic scope for the group. Notes from that first meeting are posted on the website: <http://www.psmfc.org/habitat/pmefhp.html>. Through this first meeting, participants agreed that such a partnership would be valuable, agreed the work should be concentrated on fish habitat, not just salmon habitat, and agreed to continue efforts, expand the steering group, and seek funding for further work. and stream channel enhancement effort were featured for local government representatives, the media, and landowners.



Habitat assessments, such as presented by Dr. K. Koski, will help inform the priorities for the Pacific Marine Estuarine Fish Habitat Partnership. (Photo by Fran Recht, PSMFC)

PSMFC also provides administrative and technical assistance and support to the Mid-Coast Watersheds Council and its partners to help further priority conservation and restoration efforts on Oregon's central coast, helping the group accomplish about a million dollars of work a year on priority conservation efforts (marsh habitat protection) and whole basin restoration work, informed by limiting factor assessments. Focus of the work is on conserving and improving habitat for coho, steelhead and other salmonids as well as restoring watershed function.

PSMFC administers a small grant program (from funds allocated by Oregon's Watershed Enhancement Board) that assists the Siuslaw and Mid-Coast areas of the central/south central coastal region with on-the ground project funding. This work allows \$100,000 of state funds to be used over a two year period for small restoration projects (\$10,000 and under) that meet priority basin needs.

PSMFC serves on the Alsea Stewardship Group, a multi-party group that works cooperatively with the U.S. Forest Service under federal 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 doing priority restoration projects as well as allows a portion of the funds to be used on restoration efforts on surrounding private lands (Wyden Authority) if there is a direct benefit to the forest watershed, fish and other species.



PSMFC arranged for the Mid-Coast Watersheds Council's natural resource crews to survey abandoned creosoted pilings in Yaquina Bay as a first step in prioritization for removal. (Photo by Parker Ogburn, OSU Extension Service)

Marine Debris Work

In the second year of a renewed effort to promote gillnet recycling in Alaska communities, Cordova, Dillingham, and Naknek, Alaska collected and shipped out about 60,000 lbs of webbing for recycling. Kenai was not able to revive its efforts. Petersburg is working to integrate net recycling into its general recycling program and has collected about 5000 lbs of unwanted netting. Juneau and Ketchikan Alaska initiated collection programs this year. For over 15 years, Seattle's Fishermen's Terminal and Bellingham's Squalicum Harbor have provided gillnet recycling opportunities for their fishermen. Additionally the Port of Seattle, with support from NOAA and the NFWF and Skagit River Steel and Recycling accept trawl nets from Alaska for recycling. PSMFC helps to promote awareness of this service. Funding from grant sources goes through PSMFC to local groups, including Indian Associations, a recycling group and a watershed council which hire their own local coordinator or use in-house staff to organize the net collection effort.

PSMFC has also been working to assure the recycling of gillnets from the Yukon that will no longer be allowed to be used, once gear regulation changes go into effect. The gear changes are a part of the Yukon River disaster relief program. NOAA funding has been sought to assure that distribution of new nets to fishermen will depend on exchange for an old net that will then be sent in for recycling. Only the webbing will be exchanged; the lead and cork lines from the old nets can be kept and re-used.

The nylon gillnet webbing from all these communities goes to a recycler in Burlington, WA. The webbing is stockpiled until there is enough to bale for a container load (40,000 lbs). The materials are then marketed and shipped to the processor (generally overseas, although U.S. markets are developing for carpeting). There the web is chopped or ground up and then cleaned. This scrap is then melted and formed into small pellets. The pellets are sold into the secondary nylon market for manufacturers involved in the following industrial categories: auto parts, electronic parts, appliance parts, and utensils. The nylon pellets from the nets may be mixed with other nylon compounds or other compounds to make various parts. Some of the hundreds of molded items that can be made are: castors for chairs (wheels). chair bases after it is mixed with fiberglass, tool handles, autoparts. The technology has changed recently, so now recycled nylon is also able to be used in such things as plastic film (with a nylon filament) that lumber is wrapped up in, for example, upholstery and carpets.

PSMFC participates in the West Coast Governors Agreement on Ocean Health's Marine Debris action strategy team. A workshop was held in Seattle in early 2010 to concentrate on prevention and reduction of derelict fishing gear and planning was conducted for a workshop concentrating on land-based sources of marine debris to be held in early 2011 in San Francisco. Other actions involve promoting a derelict gear database for the west coast and setting up a multi-state coordinating body for marine debris focus.

Watershed Tours

PSMFC's watershed tour program is aimed at getting state, county, and city decision makers, the media, 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.

PSMFC helped sponsor watershed tours in March for restoration practitioners at the Salmonid Restoration Conference in Santa Cruz, California. Tour participants visited various types of stream restoration projects in Clear Creek, Battle Creek, the Upper Trinity River, the Shasta River, the Upper Sacramento River. A gravel augmentation project was also a focus of one of the tours.

Washington tours called 'Flying for Fish Habitat' are aerial tours conducted with the collaboration and assistance of Light-hawk, a non-profit group, which helps schedule volunteer projects and their planes. In 2010, the Flying for Fish Habitat Program coordinated flights with county commissioners and state senators to help assure continued funding for the high priority habitat work by the Nisqually Tribe on Ohop Creek removing dikes and re-establishing meanders on the mainstem. It also conducted flights in the Samish Watershed that highlighted priority water quality issues.



NORTHERN PIKEMINNOW PREDATOR CONTROL 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 2010 season marked the 19th consecutive year of the Sport Reward Fishery component 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 2010 season:

- A program total of 173,981 fish were harvested in the sport-reward fishery.
- Vouchers for 173,113 fish of the 173,981 total catch were submitted for payment with rewards totaling \$1,224,494.
- 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 1,075 anglers who registered were successful in catching one or more fish in 2010. The 2010 season ran from May 1, 2010 through October 10, 2010.
- A total of 213 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 \$106,500.
- Systemwide exploitation in 2010 of northern pikeminnow 200 mm or greater in fork length was 18.8% which incorporated a tag loss of 5.1%. The 2010 estimated reduction in potential predation was 35% lower than pre-program levels based on the 2010 exploitation rate.



WEST COAST GROUND FISH OBSERVER PROGRAM

The **West Coast Groundfish Observer Program (WCGOP)** provides coast wide 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.

During 2010, the WCGOP continued its efforts to collect discard data in the West Coast groundfish fisheries while preparing for a dramatic change to the largest fishery monitored by the program. NOAA is planning to transition the limited entry trawl fishery to an individual quota fishery, referred to as the catch share fishery, in January 2011. One of the requirements for the catch share fishery is that vessels in this fishery must have 100% observer coverage. During the past nine years, the WCGOP has observed about 25% of the effort in this fishery. In preparation for the new fishery, the WCGOP began creating a system to manage the catch share fishery observers and the data they will collect. This will require the WCGOP to quickly accommodate the much higher number of observers needed for this fishery while at the same time maintaining observer coverage in all the other groundfish fisheries on the West Coast. The staff has worked hard to develop a means to collect data on the catch share vessels that provides reliable estimates of discards and of retained overfished species. While preparing for the change, the program also developed a training curriculum for the observers who will be deployed in this fishery. The staff has successfully trained 35 observers in December 2010. Additional catch share observer training sessions are scheduled each month from January through May. In the past, the WCGOP typically administered one training session per year. It is likely the WCGOP will conduct eight or more observer trainings in 2011 and train as many as 200 observers. Observer trainings are conducted collaboratively with NOAA. PSMFC and NOAA staffs work as a team to develop and present training curricula focused on preparing trainees to become WCGOP Catch Share Observers. Trainings are 13 days in length. Trainings provide the skills necessary to be successful observers such as: Species Identification; Sampling Methodologies; Sampling Forms; Random Sampling; Sea Safety; Conflict Resolution; and Observer Database Use.

In addition, PSMFC staff procured observer safety and sampling gear to supply to the observers. Observers will be provided a net book with a broadband card to allow them to access the NOAA observer database and enter their data directly into the system. 125 sets of gear will be available for deployment during 2011.

During 2010, the program maintained an observer core in the non-catch share fisheries of between 13-43 observers seasonally matched to the fishing efforts of the groundfish fleets. These observers have continued to observe the non-catch share groundfish fisheries to collect discard data. 2010 was the ninth year the WCGOP actively deployed observers in a variety West Coast groundfish fisheries. The program has standardized its sampling and vessel coverage plans and has adjusted to the evolving sampling plan created by the WCGOP with help from stock assessment authors and the Pacific Fisheries Management Council. 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.

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, 2010 and 2009 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, 2010 and 2009 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 29, 2011 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 29, 2011

2010 HEADQUARTERS STAFF

Randy Fisher, *Executive Director*
Pam Kahut, *Fiscal Manager*
Shannon Quinn, *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)

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

John Tenney and **Don Warf**
PIT Tag Information System (PTAGIS)

Todd Kaehler and **Chris Matthews**
IT Systems

Richard Masters, *Manager*
Accounting Program

Matthew Robertson, *Administrator*
Software Systems

