



Pacific Council News

A publication of the Pacific Fishery Management Council
 Fall 2009 • Volume 33, No. 3 • www.pcouncil.org

Contents

Groundfish

New stock assessments adopted	1
Council to consider two-year allotment of canary pounds for some	2
Inseason adjustments	2
Science workshops recommended	3
Annual catch limits	3
Catch of unidentified rockfish studied	3

Ecosystem & Habitat

Council begins ecosystem plan process	1
Habitat Report	6
Aquaculture project proposed	6
Ocean acidification and sea level rise pose risks	7
National MPA registry	8
Update on Monterey Bay MPAs	8

Salmon

Central Valley Biological Opinion	4
Annual catch limits	4
Salmon methodology review	5

Halibut

2010 annual regulations limits changed	5
Halibut bycatch in the groundfish fishery	5

Other Features

Public opinion polls on marine resource management	3
Acronyms	6
Useful websites	9
Community-supported fisheries grow	10
Appointments	10
Enforcement Corner	11
November Council agenda	12
Recipe: Tuscan Tuna	12
Briefing book deadlines	12
Dr. Varanasi appointed interim director of SWFSC	15
Events	Back cover

New Groundfish Stock Assessments Adopted

In September, the Council adopted new stock assessments for petrale sole, bocaccio, widow rockfish, cabezon, lingcod, greenstriped rockfish, and yelloweye rockfish. All of these assessments, as well as those adopted this past June, will be used to develop a range of annual catch limits and other harvest specifications for the 2011-2012 management period. The assessments for the overfished species will be used in draft rebuilding analyses, which in turn will be used for making potential revisions to rebuilding plans and 2011-2012 harvest specifications for the overfished stocks. The process for developing 2011-2012 groundfish harvest specifications and management measures will begin at the Council's November meeting in

Costa Mesa, California.

Petrale Sole

The new petrale sole assessment was first provided to the Scientific and Statistical Committee (SSC) and the Council for review and possible adoption in June. However,

stocks having higher steepness). After further review, the SSC recommended the assessment in September with no changes from the June version. The assessment indicated the stock was at 12% of its virgin biomass, or $B_{12\%}$.



A new assessment shows lingcod populations are healthy coastwide. Photo: Steve Lonhart / Monterey Bay National Marine Sanctuary

All groundfish stocks are now managed for a target biomass of 40% of virgin biomass (i.e. $B_{40\%}$), and are considered overfished when the biomass drops below 25% of virgin biomass, or $B_{25\%}$. Using these reference points, petrale would be considered overfished. However, because petrale sole and other

the SSC did not recommend the assessment for adoption in June pending further evaluation of assessment results, including estimated steepness (a measure of the inherent productivity of a stock, with more productive

flatfish are more productive than most other groundfish, the Council is considering whether the reference points for petrale should be changed.

In June, the Council asked

Continued on page 13

Council Begins Ecosystem Management Plan Process

The Council is beginning the process of developing a new ecosystem-based fishery management plan, or EBFMP. At its September meeting the Council established an Ecosystem Plan Development Team (EPDT) and Ecosystem Advisory Subpanel (EAS) and asked Council staff to solicit nomina-

tions to fill the membership of each (see details, page 10). The plan development team will provide technical advice to the Council in developing the FMP, while the advisory subpanel, like other Council advisory subpanels, will provide input from a stakeholder perspective. The EBFMP is

expected to serve as an "umbrella" plan that integrates ecosystem considerations across existing FMPs, but does not replace them.

The Council will begin initial scoping for the EBFMP at the November Council meeting, when the EPDT and EAS members will be selected.

**Pacific Fishery
Management Council**

Toll-free (866) 806-7204
www.pcouncil.org

Chair

Mr. David Ortmann

Vice Chairs

Mr. Daniel Wolford
Mr. Mark Cedergreen

COUNCIL STAFF

Executive Director

Dr. Donald McIsaac

Deputy Director

Dr. John Coon

Special Assistant to the E.D.

Mr. Don Hansen

Executive Specialist

Ms. Carolyn Porter

Administrative Staff

Ms. Renee Dorval
Ms. Kim Merydith
Ms. Carrie Montgomery
Ms. Mary Wilson

**Coastal Pelagic Species &
Legislation**

Mr. Mike Burner

**Communications, Habitat, and
Social Science**

Ms. Jennifer Gilden

Fishery Economics

Mr. Jim Seger
Mr. Merrick Burden

Groundfish

Mr. John DeVore
Ms. Kelly Ames

Information Technology

Ms. Sandra Krause

**Marine Protected Areas &
Essential Fish Habitat**

Mr. Kerry Griffin

**NEPA Compliance and Highly
Migratory Species**

Dr. Kit Dahl

Salmon & Halibut

Mr. Chuck Tracy



The Pacific Council News is
published by the Pacific
Fishery Management Council pursuant
to National Oceanic and Atmospheric
Administration Award Number
NA05NMF4410008.

Groundfish News


Additional Allotment of Canary Quota Pounds to Trawlers Considered

At the Council's September meeting, National Marine Fisheries Service (NMFS) provided a report on its progress in preparing to implement the trawl rationalization program by January 1, 2011, and the Council heard extensive testimony regarding concerns about the initial allocation of overfished species.

There was extensive public comment on the small amounts of overfished species quota share that some permits would

receive, including some active permits that would receive virtually no quota share for canary rockfish. The Council voted to consider in November whether or not to allocate to some permit holders a portion of the trawl canary quota pounds that were designated for use in adaptive management. Under this approach, canary quota pounds from the adaptive management program would be used to bring each permit up to a minimum of

50 pounds for the first two years of the program.

On September 16, NMFS published its first proposed rule regarding the program in the *Federal Register* (pages 47545-47549). This rule pertains to the collection of ownership information in advance of the initial allocation. The public comment period on this rule will be open until October 16, 2009. All public comments should be addressed to NMFS. 

Council Makes Inseason Adjustments to Groundfish Fisheries

In September, the Council considered the status of ongoing commercial and recreational groundfish fisheries. Data on the status of 2009 commercial fisheries indicated that the catch of sablefish was expected to come in below allowable catch levels for the limited entry trawl fishery, the limited entry fixed gear daily trip limit fishery (DTL) north of 36 degrees, and the limited entry and open access DTL fishery south of 36 degrees. In addition, the commercial catch of nearshore rockfish was estimated to be below expectations. Based on this information, the Council adopted the following changes to trip limits in the limited entry and open access fixed gear fisheries, which should be effective mid-October, 2009.

- Increase the limited entry fixed gear sablefish DTL limits north of 36° N. latitude to 2,000 lbs per week, up to 7,000 lbs per two months, and eliminate the daily limit through the end of the year.
- Increase the limited

entry fixed gear sablefish DTL limits south of 36° N. latitude to 3,000 lbs per week, and eliminate the daily limit through the end of the year.

- Increase the open access fixed gear sablefish DTL limit south of 36° N. latitude




Sablefish. Photo: Wade Smith, OSU

to 400 lbs per day, one landing per week of up to 2,500 lbs, and eliminate the bimonthly limit through the end of the year.

- Increase the limited entry and open access deeper nearshore rockfish trip limits south of 40° 10' N. latitude to 800 lbs per two months for the remainder of the year.

Opportunities in the limited entry trawl fishery were considered alongside results from the most recent stock assessment for petrale sole.


The Council confirmed the preliminary decision made in June 2009 to reduce the catch of petrale sole beginning this year. In addition, the Council voted to provide notice that it "intends to review our 2010 management measures and/or optimum yields (OYs) for petrale sole and canary rockfish in response to the recent stock assessment results for those two species. The Council may elect to adjust management measures for 2010 at the November 2009 Council meeting."

In order to mitigate against the effect of lower petrale sole catches this year, the Council voted to provide opportunities for trawlers on other species, namely arrowtooth flounder, slope rockfish, and sablefish, where additional harvest amounts can be accommodated without exceeding an OY. The tables on page 15 outline the trip limits and Rockfish Conservation Area boundaries for the 2009 limited entry trawl fishery that were adopted at the September meeting. 

Groundfish News


Workshops on Groundfish Policy Evaluation, Yelloweye Survey, Data Modeling Recommended

In September, the Council provided guidance on priority groundfish science activities to be conducted next year. The Council recommended the following activities: a harvest policy evaluation workshop to consider new harvest control rules and reference points for groundfish stocks; a workshop designed to improve the extended International Pacific Halibut Commission survey in Washington and Oregon waters for tracking the relative abundance of yelloweye

rockfish; and a data modeling workshop to solicit and evaluate data and modeling approaches to be used in the next round of stock assessments in 2011. Further, the Council supported ongoing and contemplated activities by the National Marine Fisheries Service science centers designed to improve data and modeling for stock assessments, including historical catch reconstructions and investigations of the best approaches for modeling trawl survey indices. 

Amendment 23 to Address New Annual Catch Limit Requirements for Groundfish

The Council is considering making an amendment (Amendment 23) to the groundfish fishery management plan in order to comply with new Magnuson Act National Standard 1 guidelines for setting and managing harvest specifications. The Council received a report from the Scientific and Statistical Committee (SSC) on the conceptual approach for setting scientific uncertainty buffers for acceptable biological catches (ABCs). The SSC plans to provide a full analysis of this approach, and other considerations for setting

ABCs, to the Council in November. Likewise, the Groundfish Management Team outlined the analyses, data, and considerations they intend to provide to help the Council develop Amendment 23 provisions for setting annual catch limits (ACLs) and accountability measures designed to stay within ACLs. These analyses and considerations will be presented to the Council in November, when the Council is scheduled to consider preliminary amendment language for public review. 


Reports Find that Catch of Unidentified Rockfish in the Recreational Fishery Does Not Pose Risk

In October of 2008, the Council discussed reported occurrences of unidentified rockfish in the recreational fishery that had not been accounted for in historical estimates of recreational impacts. This catch, reported by the Recreational Fishery Information Network (RecFIN), appears to be com-

prised of recreational discards or retained catch that cannot be identified by a sampler. The Council considered this matter in March 2009 and directed RecFIN committees, appropriate state staff, and National Marine Fisheries Service (NMFS) and Council staff to meet and discuss the risks associated with

the unidentified rockfish issue. The Council requested that a report be made in September, when the Council would provide further guidance on the issue.

In September, the Council considered the resulting reports, which indicated that the unidentified rockfish issue did

not pose a conservation concern in 2008, and that resolving the issue would require substantial resources. Due to competing priorities, the Council voted to table further work on this issue unless funding is made available from another source, such as the Marine Recreational Information Program. 

In Surveys, Public Voices Strong Support for Marine Resource Protection, Balance

In September, the Council heard a report on public opinion surveys on marine resource management and the value of recreational and commercial fishing to coastal communities and their heritage.

The surveys were conducted by Responsive Management, a public opinion and attitude survey research firm specializing in natural resource and outdoor recreation issues.

The Alliance of Communities for Sustainable Fisheries, a nonprofit fishery advocacy

organization, contracted with Responsive Management to conduct the surveys.

Ms. Kathy Fosmark, Alliance Co-Chair and former Council member, and Mr. Martin Jones, Senior Research Associate with Responsive Management, presented the Council with an overview of the surveys. In general terms, the surveys indicate a strong public preference for marine resource protection, but results also indicated a desire to balance such protections with the needs of sustainable fisheries

and the coastal communities that rely on them.

According to the surveys, 95 percent of participating U.S. residents support protecting U.S. ocean waters and ocean life, but they differ in what protection means. Twenty-nine percent of respondents said protection means "managing for sustainable use," 21 percent said it means "protecting rare and unique habitats and sea life," 20 percent said it means protection from pollution, while only eight percent said it means full protection

from all human use.

Survey respondents also supported legal commercial and recreational fishing and felt these activities were an important part of coastal communities. Additionally, 89 percent said that maintaining a domestic supply of seafood was important and 96 percent said it was important that domestic seafood be harvested in a sustainable manner.

Complete reports on the surveys are available at <http://www.alliancefisheries.com>. 

Salmon News

Habitat Committee to Develop Letter on Central Valley Endangered Species Act Biological Opinion


The National Marine Fisheries Service (NMFS) issued a biological opinion and conference opinion (BiOp) on June 4, 2009 to determine whether the operations plan for water projects in California's Central Valley, as proposed by the Bureau of Reclamation, are likely to jeopardize the continued existence of salmon, steelhead, green sturgeon, and killer whale populations listed under the Endangered Species Act (ESA). The BiOp also determines if the actions proposed under the operations plan will destroy or adversely modify the designated critical habitat of the listed populations.

The BiOp concluded that the operations plan is likely to jeopardize the continued existence of, and destroy or adversely modify critical habitat for, Sacramento River winter Chinook, Central Valley spring Chinook, Central Valley steelhead, Southern green sturgeon, and Southern Resident killer whales; however, it is not likely to adversely affect Central California Coast steelhead or their habitat.

The BiOp included sections on reasonable and prudent alternatives (RPA) to the operations plan, the amount of incidental take expected, and conservation recommendations. It also

included an EFH consultation section that addressed the effects of the Central Valley water plan and the RPAs on Pacific salmon; and included a suite of EFH Conservation Recommendations. The RPAs included, among other things, improving temperature and flow regimes in the upper Sacramento River, Clear Creek, and the American River; establishing fish passage around Shasta and Nimbus/Folsom dams; permanently lifting all gates in the Red Bluff Diversion Dam; and measures to improve habitat and flow regimes in the lower Sacramento River and Delta. The complete BiOp is available at [http://swr.](http://swr.nmfs.noaa.gov/ocap.htm)

[nmfs.noaa.gov/ocap.htm](http://swr.nmfs.noaa.gov/ocap.htm).

The Council received a briefing on the BiOp and EFH consultation from Ms. Maria Rea of the NMFS Protected Resource Division. Based on the briefing and additional materials presented by her staff to the Council's Habitat Committee, the Council recommended the Habitat Committee draft a letter to the Bureau of Reclamation requesting a response to conservation recommendations included in the EFH consultation. The EFH consultation was completed on June 4, 2009. The Bureau of Reclamation is required to respond to EFH recommendations within 30 days. 

Issues Related to Annual Catch Limits and Accountability Measures for Salmon Discussed

In 2007, the reauthorization of the Magnuson-Stevens Act (MSA) established new requirements to end and prevent overfishing through the use of annual catch limits (ACLs) and accountability measures (AMs). The Council conducted a formal scoping session at its September meeting to identify issues and consider preliminary alternatives for a fishery management plan amendment to address these requirements and the National Standard One Guidelines regarding ACLs and AMs.

The Council recommended the following topics be included in Amendment 16 to the salmon fishery management plan:

- Determine which stocks or stock complexes would be subject to ACLs and AMs;
- Establish ACLs and AMs for appropriate stocks or

stock complexes;

- Characterize stock conservation objectives relative to specified reference points such as maximum sustainable yield (MSY), acceptable biological catch, ACL, and annual catch targets;

• Revise status determination criteria for when stocks are overfished and when they are experiencing overfishing;

- Address *de minimis* fishery provisions for salmon stocks through the revised status determination criteria.

The Council directed that Amendment 16 not include updated conservation objectives unless they were necessary to address the ACL/AM provisions, and that *de minimis* fishery provi-

sions not be addressed through individual stock conservation objectives.

The Council directed the Salmon Amendment Committee to develop suites of alternatives that will encompass the range of options for these measures.


Alternatives will include stock classification (including international management exceptions to ACL/AM requirements), formation of stock complexes with indicator stocks to facilitate setting ACL/AMs, options for quota management in salmon fisheries south of Cape Falcon, and options for using buffers to facilitate traditional time/area salmon fisheries south of Cape Falcon.



Chinook salmon.

The Council directed that alternatives for status determination criteria should include clear and objective criteria to streamline the annual report to Congress and to facilitate the rebuilding process.

Alternatives for characterizing conservation objectives should include options for relating various conservation objectives to specified reference points depending on the basis for the conservation objective, e.g., MSY, maximum sustainable production, and buffered escapement objectives, exploitation rate based objectives, and objectives combining escapement and exploitation rate(s).

The Salmon Amendment Committee met October 7, 2009 in Portland, OR to begin implementing the Council's direction. 

Salmon and Halibut News

Council Proposes Changes to 2010 Annual Regulations for Halibut

In September, the Council adopted several proposed changes to the Area 2A Pacific halibut catch sharing plan for public review. The proposals affect Washington and Oregon sport fisheries. Final adoption of the proposed changes will take place at the Council's November 2009 meeting in Costa Mesa, California. Comments on the proposals should be received by October 14, 2009, and can be emailed to pfmc.comments@noaa.gov, faxed (503-820-2299), or mailed to the Council office (address on cover). Comments will also be taken at the Council meeting in Costa Mesa. Additional detail on the substance and rationale for the following proposals are available on the following web sites:

Washington Department of Fish and Wildlife (WDFW):

www.wdfw.wa.gov/fish/creel/halibut/

Oregon Department of Fish and Wildlife: www.dfw.state.or.us/MRP/finfish/halibut/management/index.asp

Proposals include:

Washington South Coast Sub-area:

- Continue the Sunday, Tuesday primary season structure through the third week in May. For the fourth week in May, the primary fishery will be open on Sunday only. Beginning the following week, the fishery would resume the Sunday, Tuesday structure until the primary season quota is attained. This would balance the harvest opportunity between those who like to fish on weekends and those who like to fish weekdays. Having the fourth week open only on Sunday would allow WDFW

to tally the catch and provide sufficient notice of a reopen the following week, if quota is available.

- Specify that the season will be open in the nearshore area seven days per week.

Increasing the number of days that the nearshore fishery is open during the primary season and after the offshore quota is reached would allow better access to the set-aside quota and reduce the amount of incidentally caught halibut that would otherwise be discarded.

- Revise the nearshore area to align the northern and western boundaries with the line approximating the 30 fathom (fm) depth restriction. Currently, the nearshore boundary and the 30 fm line overlap. Aligning the nearshore boundary with the 30 fm line would promote ease of compli-

ance and enforcement. There don't appear to be target areas for halibut within the revised boundaries, so this area would remain an incidental retention opportunity for halibut.

- On days that the primary halibut season is open, allow the retention of lingcod seaward of the 30-fm line.

The 30-fm restriction is in place primarily for the protection of yelloweye rockfish; however, during days that the primary halibut season is open, anglers are required to discard lingcod caught while targeting halibut offshore without encountering yelloweye rockfish. Those same anglers then moved shoreward of 30 fms only to catch smaller lingcod or no lingcod at all. WDFW accounts for incidental yelloweye catches

Continued on page 15

Estimates of Pacific Halibut Bycatch in the Groundfish Fishery to be Forwarded to IPHC

A report on Pacific halibut bycatch estimates in 2008 Area 2A groundfish trawl fisheries, developed by National Marine Fisheries Service's (NMFS) Northwest Fisheries Science Center and using the observed halibut viability methodology, shows a nine percent increase in total bycatch mortality and a 43 percent increase in legal size halibut bycatch mortality compared to 2007. In Septem-

ber, the Council recommended NMFS forward the report to the International Pacific Halibut Commission (IPHC). The Council also recommended fixed gear halibut bycatch mortality estimate of 46.4 metric tons (mt) be forwarded to the IPHC. The IPHC will use these estimates to complete their annual stock assessment and to recommend total allowable catch for Area 2A fisheries in 2010.

Changes to Salmon Management Process Recommended as Part of Methodology Review

The Council directed the Scientific and Statistical Committee (SSC) Salmon Subcommittee and the Salmon Technical Team to review the following proposed methodological changes to the Council's salmon management process:

- Characterization of bias in Chinook and Coho Fishery

Regulation Assessment Models associated with multiple encounters in mark selective fisheries.

- Assessment of the September 1 maturity boundary assumption for Klamath River fall Chinook.
- Forecasting impact rates in fall fisheries for Klamath

River fall Chinook and Sacramento River fall Chinook.

- Conservation objective updates for Puget Sound coho. The initial review took place October 5-6, 2009 in Portland, Oregon. The Model Evaluation Workgroup also provided a progress report at the meeting

on development of ocean abundance forecasts for Columbia River fall Chinook stocks. The SSC Salmon Subcommittee will present the results of the review to the full SSC at the November Council meeting in Costa Mesa, California, where the Council will consider approval of the proposed methodologies.

Habitat and Ecosystem News

HC Discusses Coho Overfishing, Salmon Habitat, California Central Valley Habitat Issues

At its September meeting, the Habitat Committee (HC) discussed several salmon-related issues as well as the National Marine Fisheries Service's Habitat Assessment Improvement Plan.

Queets and Western Strait of Juan de Fuca Coho Overfishing Report

Queets and Western Strait of Juan de Fuca coho have failed to meet their conservation objective for three years in a row, triggering an overfishing concern and a workgroup review of the causes of the problem. The Salmon Technical Team (STT) met in September

to discuss whether the overfishing concern is related to fisheries, management data, or productivity. Based on their discussions, it appears that overharvest and/or pre-season forecast error may be the root of the problem for Queets coho, while the Western Strait of Juan de Fuca coho are experiencing productivity problems. Further analysis will be conducted to determine if these problems are based in marine or freshwater habitat. If the STT determines that freshwater production is indeed an issue, the HC, working with the relevant state and tribal entities, will develop a review

of freshwater habitat issues that may be contributing to reduced productivity and will make recommendations to address those habitat issues.

Salmon Essential Fish Habitat (EFH) Five-Year Review

The HC received a briefing from Bryant Chesney, National Marine Fisheries Service (NMFS) Southwest Region, on the work plan for the salmon EFH five-year review. The current designations of EFH for Pacific Coast salmon were approved by NMFS in September 2000 and are in need of review.

In collaboration with the

Northwest Region, Southwest Region, Northwest Fisheries Science Center and Southwest Fisheries Science Center, the Pacific Council received a \$100,000 grant for a joint proposal to support the five-year review of Pacific salmon EFH. The funds will be used to conduct a comprehensive assessment of Pacific Coast salmon EFH, focusing on information that has become available since the initial designation in 2000. Project funding will be administered by the Pacific Council. Funding will be used to support special scientific, stakeholder,

Continued on page 14

Hubbs-Sea World Proposes Aquaculture Project Off Coast of San Diego; Presents to Council

In September, Mr. Don Kent of Hubbs-Sea World gave a presentation to the Council and Habitat Committee on a proposed offshore aquaculture demonstration project that would eventually become a commercial-scale fish farm for striped bass five miles off the coast of San Diego. The Council and HC also heard from Mr. James Ferro of the Ocean Conservancy on the cumulative impacts

of aquaculture and impacts from inadequately regulated aquaculture projects. NOAA is considering developing standards for aquaculture projects. The Council will likely comment further on the Hubbs-Sea World project when it conducts an assessment under the National Environmental Protection Act. Powerpoint presentations from both presenters are available at <http://tinyurl.com/yel9dac>.

Acronyms and Definitions

ABC	acceptable biological catch
ACL	annual catch limit
AM	accountability measure
B _{MSY}	target biomass
B _{19%}	19% of target biomass (for example)
BiOp	Biological Opinion
BOF	Board of Forestry (California)
CSF	community-supported fisheries
DTL	Daily trip limit fishery
EAS	Ecosystem Advisory Subpanel
EFH	Essential fish habitat
EBFMP	Ecosystem-Based Fishery Management Plan
EPDT	Ecosystem Plan Development Team
ESA	Endangered Species Act
FMP	fishery management plan
HAIP	Habitat Assessment Improvement Plan (NMFS)
HC	Habitat Committee

IEA	integrated ecosystem assessment
IPHC	International Pacific Halibut Commission
MBNMS	Monterey Bay National Marine Sanctuary
MPA	marine protected area
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MSY	maximum sustained yield
NMFS	National Marine Fisheries Service
NOAA	National Oceanic & Atmospheric Administration
NWR	Northwest Region (of NMFS)
ODFW	Oregon Department of Fish and Wildlife
OY	optimum yield
RecFIN	Recreational Fisheries Information Network
RPA	reasonable and prudent alternative
SSC	Scientific and Statistical Committee
STT	Salmon Technical Team
VMS	vessel monitoring system(s)
WDFW	Washington Department of Fish and Wildlife

Habitat and Ecosystem News

Sea Level Rise, Ocean Acidification Pose a Major Risk to West Coast Ecosystems

At the September Council meeting, Dr. John Stein, the Deputy Director of the NMFS Northwest Science Center, gave a presentation on sea level rise and ocean acidification.

Sea level rise

Global sea level rise is already occurring, Dr. Stein said. Sea level rise is driven by the thermal expansion of water (water volume expands as it heats); the melting of land-based ice; atmospheric dynamics such as “pile-up” of waves along the coast; and local geological processes, such as the lifting and sinking of land due to the movement of tectonic plates.

Since 1870, global sea level has risen about 8 inches. Under a “medium carbon emissions” scenario, sea level is projected to rise between 8.3 and 18.9 inches (relative to 1980-1999) globally by 2100. However, sea levels are not expected to rise evenly around the world, due in part to tectonic processes. In the U.S., sea levels are expected to rise more on the East Coast and the Gulf of Mexico. The West Coast is expected to experience less sea level rise, and even a decline in sea levels in some areas, due to uplift. By 2100, sea level is expected to rise by 2” along Washington’s Olympic Peninsula, and 13” for Washington’s Puget Sound. Higher estimates (such as 4’ in Puget Sound) cannot be ruled out. Due to subsidence (the sinking of land), South Puget Sound (Olympia and Tacoma) are among the most vulnerable spots on the west coast for sea level rise. In San Francisco Bay, sea levels

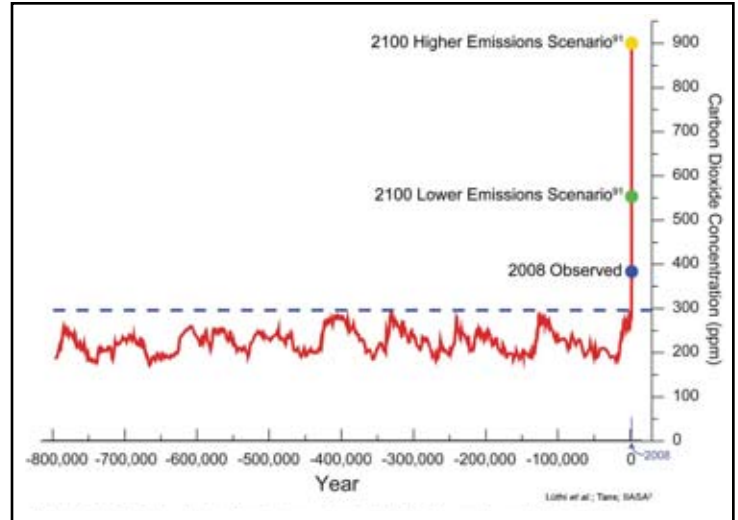
could rise an additional 55” by 2100 over the 8 inches they have already risen, putting an estimated \$100 billion in public and private development at risk.

The impacts of sea level rise depend on location, on daily and seasonal sea level fluctuations, and on interactions between these events and other factors, not just changes in mean sea level. In general, however, sea level rise will increase the risk of coastal flooding, erosion, saltwater intrusion into aquifers, contamination from coastal landfills and toxic sites, landslides along bluffs, and habitat loss along the west coast.

Many states and municipalities are already beginning to address sea level rise. For example, the San Francisco Bay Conservation and Development Commission has worked with Dutch experts to better understand strategies the Netherlands are using to deal with sea level rise. The shores of the Netherlands are armored with floodgates and other equipment strong enough to withstand once-in-10,000-year flooding. Other ways to respond to sea level rise include protecting the shoreline through levees and sea walls, redesigning structures, enhancing wetlands and beaches, and retreating from the coastline in a planned way. States and municipalities are already taking sea level rise into account by planning levees and siting bridges and sewage treatment plants in appropriate areas.

Ocean Acidification

Ocean acidification, Dr. Stein noted, is often called



Changes in atmospheric carbon dioxide concentration over the last 800,000 years (from presentation by Dr. John Stein, NWFSC)

global warming’s “evil twin.” The ocean has absorbed about half the carbon emissions created by modern society, and because the ocean mixes slowly, most of these emissions are stored in the upper 10% of the world’s oceans.

During the last 800,000 years or more, carbon dioxide concentrations in the atmosphere have not surpassed 300 parts per million (ppm). In 2008 they were measured at almost 400 ppm. Under a “lower emissions scenario” they are projected at about 555 ppm by 2100, and under a higher emissions scenario they are projected at 900 ppm. These numbers are important because increases in atmospheric CO₂ are highly correlated with declining pH (and increased acidity) of the ocean’s surface waters. Average pH of the ocean is about 8.2, which is moderately alkaline.

Over the last two centuries there has been a 30% increase in ocean acidity, and a corre-

sponding decrease in carbonate ion (a buffering chemical) of about 16%. By the end of this century, pH could further decrease by as much as 0.3 - 0.4 pH units on a logarithmic scale, which could have serious impacts on both open ocean and nearshore ocean ecosystems. Due to ocean processes, the north Pacific is more prone to ocean acidification than the north Atlantic.

Ocean acidification can result in reduced calcification rates for marine organisms; a shift in key nutrient and trace element types; a shift in phytoplankton diversity; reduced growth, production, and life span of adults, juveniles and larvae (of fish); reduced tolerance to other environmental fluctuations; changes to fitness and survival; changes in species location; changes to biogeochemical cycles; changes to food webs; and changes to ecosystems and their services.

Continued on page 13

Marine Protected Area News

Council Considers Inclusion of Sites Under National System of Marine Protected Areas

Dr. Charlie Wahle, Senior Scientist of the National Marine Protected Areas (MPA) Center, gave a presentation to the Council in September about a list of MPA sites to be considered for nomination to a National System of MPAs.

The list presented to the Council at the September meeting was submitted to the MPA Center by National Marine Fisheries Service (NMFS), and included only 52 sites that have been designated essential fish habitat (EFH) for groundfish.

The National System of MPAs is the result of a Presidential Executive Order signed in 2000. The system is designed to facilitate the development of overarching goals and conser-


vation objectives, to improve regional and ecosystem-based coordination between existing MPAs, and to establish a science-based process for identifying gaps in the national system.

The National System is being developed through an ongoing public nomination process. The first nomination period was focused on state MPAs and Federal MPAs within the programs of the National Marine Sanctuaries, the National Parks, and the National Wildlife Refuges. The first nomination period occurred in early 2009 and resulted in the adoption of 225 charter sites, including 63 state MPAs in California and 19 in Washington. The current second round of nominations

is focused on input from other national, state, and local entities that manage MPA sites, including specifically sites protected under fishery management plans developed by the eight Regional Fishery Management Councils.

The Council discussed a variety of unresolved process and jurisdictional issues and directed Council staff to develop a white paper that evaluates whether the list of groundfish EFH sites submitted by NMFS meet the Federal criteria for MPAs; identifies the pros and cons of including those sites in the National System; addresses questions raised by the Scientific and Statistical Committee; describes the MPA Center's

methodology for identifying gaps in the National system; describes a potential Council procedure for adding, removing, or modifying a site in the National System; and provides a legal review of the terms "harm" or "avoiding harm" as described in Executive Order 13158.

The current nomination period is scheduled to end in November 2009, but will not be the last opportunity for the Council to nominate sites or request revision, or even removal, of sites included in the National System. To allow time for the development of the Council staff white paper, the Council will not likely take up this matter again until the spring of 2010. 

Monterey Bay Superintendent Provides Update on Marine Protected Area Process

At the September Council meeting, Monterey Bay National Marine Sanctuary (MBNMS) Sanctuary Superintendent Mr. Paul Michel provided an update on the Sanctuary's process for MPA consideration.

The Sanctuary is considering the criteria, rationale, and scientific justification for additional resource protection in marine protected areas (MPAs) in Federal waters of the Sanctuary. As part of this process, the Sanctuary has developed three principal management objectives: 1) Preservation of unique and rare areas in their natural state for the benefit of future generations; 2) Preservation of areas where natural ecosystem components are maintained


and/or restored; and 3) Designation of research areas to differentiate between natural variation versus human impacts to ecological processes and components."

Based on the ecosystem-based aspects of these management objectives, as well as input from stakeholders and partner agencies over the past year, the Sanctuary is proposing a more comprehensive ecosystem-based management approach to its MPA process. Key Sanctuary strategies are to develop inter-agency partnerships to identify common goals, coordinate MPAs with other management actions, and consider a variety of extractive and non-extractive uses within MPAs.

To evaluate a variety of management actions potentially complimentary to MPAs and their ability to achieve ecosystem goals, the Sanctuary is planning to participate in an upcoming NOAA initiative to conduct an Integrated Ecosystem Assessment (IEA) of the West Coast. An IEA is a comprehensive assessment of ecosystem status that reports trends in physical, biological, and human uses, evaluates key indicators of the state of an ecosystem, and evaluates multiple management objectives and measures.

NOAA is planning to conduct an IEA on the West Coast in 2010, but at the time of the September Council meeting, the funding and schedule of this

initiative was uncertain.

Superintendent Michel also described ongoing, complimentary management programs, such as California's MPA process, the National System of MPAs (see above), essential fish habitat review, the Council's development of an ecosystem fishery management plan, community fishing alliances, and sustainable fishery certifications. The Council voiced its appreciation for the potential collaboration these programs afford, but noted that many are already the purview of the Council and NMFS. The Council reiterated its position that federal fishery management remain under the jurisdiction of the Magnuson-Stevens Act. 

Caught in the 'Net: Useful Websites and Social Networking Tools

Council news on Twitter

The Council is now using the popular social networking tool Twitter to keep the public informed about West Coast fisheries happenings. To subscribe, go to Twitter.com/Pacific-Council (all one word), and either read the latest off the website or become a member and subscribe to the Council's "tweets." The Council's updates include information about upcoming meetings and events, and general news related to West Coast fisheries and habitat. During Council meetings, Council staff will provide updates on which agenda item the Council is addressing.

Twitter is a useful tool for following specific news developments, agency actions, and trends. Twitter updates are limited to 140 characters, often with a link to more information. Several Federal agencies, including the National Ocean Service, the Coast Guard, and U.S. Fish and Wildlife Service, are using Twitter as a way to keep in touch with their constituents.

Dedicated Twitter followers can have the Council feed sent directly to their cell phone or computer using a variety of free applications, such as TweetDeck. Council followers may be interested in following other fisheries-related Twitter feeds, such as the American Fisheries Society ([amfisheriessoc](http://amfisheriessoc.org)), US Fish and Wildlife Service ([USFWSFisheries](http://USFWSFisheries.org)), the Coast Guard ([uscoastguard](http://uscoastguard.org)) and various nongovernmental organizations.

Several staff members will update the feed. Currently, administrative staff member Kim Merydith is posting about Council meeting agenda items; Sandra Krause posts about Council meetings and events; and outreach, education, and habitat staffer Jennifer Gilden is updating the Twitter feed with fisheries and habitat-related news from NOAA and the media. Eventually, the Twitter feed will be incorporated into a new version of the Council website. For more information about Twitter, go to Twitter.com. For questions about how to use Twitter to access the Council's news feed, contact Jennifer Gilden or Sandra Krause at 503-820-2280.

Groundfish closures on Google Earth

This Pacific Council web page allows visitors to see groundfish closures in two different ways—in a Google map on the webpage itself, or through a link to Google Earth—a “virtual

globe” program that maps the earth using satellite imagery and aerial photographs. The page explains how to download Google Earth and view the closed area maps. See Rockfish Conservation Areas, the Cowcod Conservation Area, Essential Fish Habitat Conservation Areas, and more. By clicking on each area in Google Earth you can see its type, size, and shape. The map is maintained by Kit Dahl of the Council staff. http://www.pccouncil.org/groundfish/gfcurmgmt/gf_clsd_maps.html, or <http://bit.ly/oHEKp>.

Track your fish from harvester to dinner plate

Pacific Fish Trax (<http://www.pacificfishtrax.org>) allows consumers to track the fish they buy from the harvester to their table. By scanning a barcode at their grocery store, consumers can learn the history of their fish filet, including the fisherman who caught it, the vessel used, and the processor. Fish Trax is a pilot project jointly created by Oregon State University, the Community Seafood Initiative, and Oregon commercial fishermen. Currently, FishTrax is allowing consumers at two New Seasons outlets in the Portland area (North Interstate and Cedar Hills Blvd.) to track albacore and salmon.

Regional Fishery Management Councils

The eight regional fishery management councils have come together for the first time to create a joint website. The site, <http://www.fisherycouncils.org/>, provides links to the councils and news about recent and upcoming events.

NOAA FishWatch

NOAA's FishWatch (<http://www.nmfs.noaa.gov/fish-watch/>) provides a wealth of information on fish purchased by consumers. For each species, FishWatch provides nutrition facts, information about human health impacts, gear used to target the species, amount of fish harvested in recent years, biomass, overfishing status, bycatch, habitat, aquaculture, management, life history, geographic range, ecosystem role, management timeline, photographs, and sources for more information. The FishWatch site also provides up-to-date seafood news, interviews with chefs, and tips for buying and preparing seafood.

Selection of Nominees for the 2010-2012 Advisory Panel Term

The current three-year advisory body term ends December 31, 2009 and all nonmanagement entity seats on advisory bodies will expire. The Council directed staff to solicit nominations to fill the advisory positions for the new 2010-2012 term for Council consideration in November.

A New Kind of Catch Share: Community-Supported Fisheries Grow in Popularity


As the public becomes more interested in the sources of its food, and as fishermen seek new ways to market their catch, fishermen are experimenting with a new model called community-supported fisheries, or CSFs. CSFs are based on community-supported agriculture, where purchasers buy shares in a farm's harvest. Like the agricul-

tural model, CSFs are seen as a way to educate consumers, to build bonds between harvesters and diners, and to provide a more sustainable livelihood for harvesters.

A CSF involves pre-payment by consumers for a share of fresh, locally harvested seafood—a set amount of seafood that is delivered or picked

up on a weekly or bi-weekly basis. CSFs have sprouted up in North Carolina, with Walking Fish (<http://www.walking-fish.org/>); and in Maine, with Port Clyde Fresh Catch (<http://www.portclydefreshcatch.com/>) and Catch a Piece of Maine, which offers shares of a lobster catch (<http://www.catchapieceof-maine.com/>).

In a related action, though without selling catch shares, the Oregon town of Port Orford has created a signature line—"Port Orford Sustainable Seafood"—that it sells directly to markets in Ashland and Medford, Oregon.

A *Christian Science Monitor* article on community supported fisheries is available at <http://tinyurl.com/yaw92wq>. 

Committee Member Appointments and Committee Vacancies

In September, the Council Chair announced appointments to Council member committees that were made at this meeting or just prior to the meeting.

Mr. Rod Moore, Mr. Dave Ortmann, and Mr. Dan Wolford were appointed to the Council's Budget Committee; Mr. Dan Wolford and Ms. Dorothy Lowman were appointed to the Legislative Committee; and Mr. Dave Ortmann was appointed to the Groundfish Allocation Committee.

In addition, the Council made membership changes to the following committees:

Scientific and Statistical Committee (SSC): Mr. Tom Jagielo was appointed to the Oregon Department of Fish and Wildlife (ODFW) position. The at-large position left vacant by the resignation of Dr. Shizhen Wang will not be filled at this time, but will be included in the solicitation of new members for the 2010-2012 term.

Coastal Pelagic Species: Ms. Lorna Wargo was appointed to the Washington Department of Fish and Wildlife (WDFW) position.

Model Evaluation Workgroup: Mr. Larrie LaVoy was appointed to the National Marine

Fisheries Service (NMFS) Northwest Region (NWR) position.

Salmon Technical Team: Mr. Larrie LaVoy was appointed to the NMFS NWR position.

Highly Migratory Species Advisory Subpanel: The Council Chair announced interim appointments of Mr. Mike Thompson to the vacant southern charter boat position and Dr. William Fox to the vacant conservation position.

Enforcement Consultants: Lieutenant Jeff Samuels was confirmed to the Oregon Enforcement position.

Habitat Committee: Mr. Eric Leitzinger was confirmed to the Idaho Department of Fish and Game position.

Ad hoc Highly Migratory Species Management Committee: The Council Chair appointed Mr. Buzz Brizendine to fill the position left vacant by Mr. Don Hansen.

Ad hoc Vessel Monitoring System (VMS) Committee: Based on input from Council members, the Council Chair confirmed or made new appointments to the VMS Committee, which will be meeting on October 6, 2009 in Portland. The VMS Committee now has the following members:

Mr. Mark Cedergreen, Council member; Mr. Albert Joseph and Mr. Dayna Matthews, NMFS, Office of Law Enforcement; District Chief Mike Cenci, WDFW; Lieutenant Jeff Samuels, ODFW; and District Chief Tony Warrington, CDFG; Mr. Brian Corrigan and Lieutenant (Junior Grade) Brittany Steward, U.S. Coast Guard; Ms. Becky Renko, NMFS NWR; Mr. Gary Wintersteen, Washington trawler; Mr. Robert Alverson, Washington, fixed gear; Ms. Kathy Fosmark, California open access fishery; Mr. Mike Banks, Oregon open access fishery; and Mr. Tom Ghio, California open access fishery.

Ecosystem Plan Development Team and Panel

To help initiate the development of an ecosystem-based fishery management plan (EB-FMP), the Council established an Ecosystem Plan Development Team (EPDT) and Ecosystem Advisory Subpanel (EAS) and asked Council staff to solicit nominations to fill the membership of each. The Council will review the nominations and select members at the November Council meeting.

The initial EPDT will consist of 12 members with a mix of

science and policy expertise with the following composition:

- Four members drawn from the Northwest and Southwest Fishery Science Centers, at least one of whom has socioeconomic expertise
- One NWR member
- One SWR member
- Four state fish and wildlife agency members, one to represent each state on the Council
- One tribal government member
- One National Ocean Service member

The initial EAS will consist of 11 members representing industry, conservation, and public concerns with the following composition:

- One tribal fishery member
- Ten members composed of three at-large members from each coastal state and one at-large member from Idaho. These members should be selected to the extent practicable to represent a broad spectrum of the views of the commercial and recreational fishing industry, conservation organizations, and coastal community needs. 

Enforcement Corner

Three Southwest Washington Men Sentenced for Fishing Violations

Three men involved in illegally harvesting sablefish in 2005 were sentenced on September 15 in U.S. District Court in Tacoma. Jon Schultz, 46, Robert Greenfield, 40, and Kenneth Greenfield, 51, all of Chinook, Washington, were sentenced on the misdemeanor charge of failing to exercise due care while trafficking in illegally obtained fish. Fisherman Kenneth Greenfield was fined \$16,479 and ordered to pay restitution to the State of Washington of \$16,479. His brother, fisherman Robert Greenfield, was fined \$11,604 and ordered to pay restitution to Washington State of \$11,604. Jon Schultz, an employee of Bell Buoy Crab Company, was fined \$10,000.

All three men paid their fines and restitution in court.

According to the plea agreements filed in the case, in the summer and fall of 2005, Schultz was the Production Manager for Bell Buoy Crab Company of Chinook, Washington. He was responsible for purchasing sablefish, also known as black cod, from area fishermen including the Greenfields.

Federal groundfish regulations establish harvest levels and seasons for the fish. In order to determine how much fish is being taken, fish processing facilities such as Bell Buoy are required to fill out a "fish receiving ticket" and provide a copy to the fishermen with the accurate date and weight of the catch. In 2005, there were lim-

its on the weekly and monthly catch of groundfish per boat.

Mr. Schultz admitted in his plea agreement that he failed to accurately record more than 13,500 pounds of sablefish that his company had purchased. The company, Bell Buoy, reached a civil settlement of the case in March 2009, paying state and federal agencies more than \$60,000 for its failure to accurately report the loads. The settlement amount was split between the National Oceanic and Atmospheric Administration (NOAA) and the Washington Department of Fish and Wildlife (WDFW), with each entity receiving \$31,576.

Robert Greenfield admitted in his plea agreement that between May and August 2005, he exceeded the amount of sablefish he was allowed to take by more than 5,100 pounds. Mr. Greenfield operates the F/V *Remembrance*, and failed to pay attention to the fish tickets from Bell Buoy that indicated he was exceeding his limit. Kenneth Greenfield operates the F/V *Garda Marie* and the F/V *Renee Maria*. He admitted in his plea agreement that between May and August 2005, he exceeded his catch limit for sablefish by more than 8,200 pounds, and that he failed to take reasonable care to monitor his catch and limits.

In sentencing the men, Magistrate Judge Karen Strombom noted that "These regulations are intended to protect our fisheries. Those who circumvent these regulations and are caught will end up in federal court."

The case was a long-term,

joint investigation by NOAA and WDFW.

The agencies often partner to aggressively pursue violations of laws meant to protect the Nation's marine resources. Coastal economies and local commercial fishermen rely on the sustainability of these important fisheries resources. According to Mike Cenci, WDFW Deputy Chief, "illegal activities such as these disadvantage both."

The case was prosecuted by Assistant United States Attorney Carl Blackstone.

Three Cited for Illegal Hatchery Fishing

On Saturday, October 3, WDFW officers Brian Fulton and Rob McQuary caught three individuals using a boat to enter the fish trap at the Lyon's Ferry Hatchery on the Snake River and fish for steelhead.

They were contacted at about 2:30 in the morning, after being observed for four hours, and were found in possession of 21 fish. Two were wild steelhead listed under the Endangered Species Act (ESA), and three were wild ESA-listed Chinook salmon.


Their vessel and fishing gear has been seized for forfeiture proceedings. WDFW has been in contact with Special Agent Eric Morgan about how to handle the numerous state charges without jeopardizing the potential federal charges.

Border Patrol Effort Finds Fishery Violations

On October 1-3, Officer JoLynn Beauchene of WDFW Enforcement organized a three-

day border patrol operation at the U.S./Canada border. Officers and Agents from WDFW, Alaska State Troopers, NOAA, Canada Fisheries and Oceans, U.S. Fish and Wildlife Service and U.S. Customs and Border Protection participated in the patrol. Shipments transporting fish, shellfish and wildlife were inspected for the appropriate documentation and tags. Many inspections were conducted on both inbound and outbound traffic.

One truck bringing 17 totes of pink salmon and roe was refused entry by Canadian border patrol and fined for an inaccurate manifest report. U.S. Fish and Wildlife seized a black bear hide and meat for a CITES (Convention on International Trade in Endangered Species) permit violation. The individual transporting the bear was a California resident, and he claimed that a friend had given the bear to him while he was in Alaska. Alaska State Sgt Hall inspected the bear hide and found that it did not have the seal required for tagging a bear taken from the reported unit.

WDFW Officers identified several potential violations for no Wholesale Dealer license and failing to complete a fish receiving ticket documenting a commercial delivery. Officers inspected two vehicles containing geoduck but found no violations. Officers inspected several tractor-trailer loads of fresh and frozen fish and shellfish including tuna, oysters, wild coho, red salmon, sockeye salmon, chum salmon and Pollock. 

Coming Up at the November 2009 Council Meeting

The next Council meeting will be held in Costa Mesa, California on October 31-November 5, 2009. The advance Briefing Book will be posted on the Council website in early October.

Groundfish

- NMFS report
- Stock assessments for 2011-2012: adopt Petrale sole reference points & overfished species rebuilding plans
- Exempted fishing permits: adopt final
- Inseason adjustments for 2009
- Management recommendations for 2011-2012
- Annual catch lim-

its: adopt preliminary amendment language

- National Catch Share task force report
- Trawl rationalization: overfished species quota share regulatory deeming and miscellaneous implementation matters

Highly Migratory Species

- NMFS report, including albacore management issues paper
- Input to Western &

Central Pacific Fisheries Commission

- Amendment 2 (annual catch limits)

Coastal Pelagic Species

- Sardine assessment and management measures for 2010
- Annual catch limits: review initial draft

Salmon

- 2009 methodology review: adopt final methodology changes

Habitat and Ecosystem Management

- Habitat report
- Ecosystem-Based Fishery Management Plan: scoping and planning

Pacific Halibut

- Proposed changes to 2010 regulations

Other Items

- Fiscal matters
- Appointments

Recipe: Tuscan Tuna Salad with Fennel

An exceptional tuna salad adapted from *Epicurious*.

Ingredients

- 3/4 cup extra-virgin olive oil
- 1/2 cup fresh lemon juice
- Salt and freshly ground black pepper to taste
- 2 tbsps chopped tarragon (or 2 tspn dried)
- 1/4 cup chopped Italian parsley
- 2 (6-ounce) cans tuna (preferably West Coast albacore)*, drained
- 1 small head fennel, chopped
- 2 ribs celery, chopped
- 1/2 of a small red onion, chopped (about 1 cup)

Salad mix

- 1 pound mixed greens (romaine, butter lettuce, radicchio, and arugula) or spring mix
- Tuna salad
- 1 red or orange bell pepper, cut into matchsticks
- 1/2 cup pitted Kalamata olives

Directions

Using a whisk or a blender, combine the olive oil, lemon juice, salt, pepper, tarragon, and parsley. Lightly chunk the tuna, then toss it with the fennel, celery, onion, and most of the dressing. Reserve.

If you're using mixed greens, trim, wash, dry, and slice them cross-wise into 1-inch-wide strips. Toss the mixed greens or spring mix with the remaining dressing. Arrange on serving plates. Top with the tuna salad, and garnish with the bell peppers and olives.

*Some sources of locally caught canned albacore are listed at <http://www.pacificalbacore.com/products/>.

Upcoming Briefing Book Deadlines


The next Council meeting will be held October 31-November 5, 2009, at the Hilton Orange County in Costa Mesa, California. Comments received by 11:59 p.m. on **October 14** will be included in the briefing books mailed to Council members prior to the November meeting. Comments received by 11:59 p.m. on **October 25** will be distributed to Council members at the onset of the November meeting. For more information on the briefing book, see www.pcouncil.org/bb/bb.html.

Sea level rise and ocean acidification, continued from page 7

Dr. Stein emphasized the much of our knowledge about ocean acidification is still very uncertain, and much more research is required. However, there have already been observable impacts on mussels, and ocean acidification should now be considered as a possible cause for observed declines in certain species, such as bivalves and certain crustaceans.

NMFS is currently studying how phytoplankton responds to ocean acidification. They are also looking at patterns of acidification, estimating species' vulnerability, and looking at impacts to food webs. Areas where more study is needed include responses of genetically diverse populations; synergistic effects with other stress factors; physiological and micro-evolutionary adaptations to acidification; species replacements; and ecosystem and biological commu-

nity responses. An observational network for ocean acidification is currently being considered, and is a key element in understanding future trends in ocean acidification and ecosystem impacts.

Unfortunately, ocean acidification cannot be reversed at this point. Even if carbon emissions are reduced dramatically now, ocean pH will continue to decline for some time. Dr. Stein noted that the best defense (apart from reducing carbon emissions for future oceans) may be to improve the resilience of marine ecosystems. For example, recent research shows that healthy coral reefs are more resilient to acidification than unhealthy reefs impacted by other stressors. Moreover, restoration of salmon habitat in watersheds can both improve salmon habitat and mitigate the effects of climate change. 

Stock assessments, continued from page 1

the SSC to review the biomass estimated to result in maximum sustainable yield (B_{MSY}) as a potential target biomass for managing the stock. The estimated B_{MSY} from the assessment was 19% of virgin biomass ($B_{19\%}$); the FMP allows the use of an overfished threshold of half that amount (or $B_{9.5\%}$). Using this FMP definition, petrale would not be considered overfished. However, the SSC reviewed these reference points and recommended a new proxy biomass target of $B_{25\%}$ for petrale sole and other flatfish species. They also recommended a proxy overfished threshold of $B_{15\%}$ for Council-managed flatfish species.

A decision regarding new petrale sole biomass reference points was deferred until the November Council meeting. The alternative biomass reference points to be considered in November are the proxy flatfish target and overfished thresholds recommended by the SSC in September ($B_{25\%}$ and $B_{15\%}$, respectively) and the estimated biomass target of $B_{19\%}$ from the new assessment, with an overfished threshold of $B_{9.5\%}$.

Petrale is one of the most important trawl "workhorse"

stocks, so an overfishing designation would have a major impact on the trawl fishery. However, recent recruitment appears stronger than average. Petrale have been fished at about the same rate for the last 60 years at close to the estimated MSY.

Bocaccio

The new bocaccio assessment estimated that the stock was at 28% of unfished biomass, and the stock is rebuilding. The new assessment was extended north of 40°10' N latitude to Cape Blanco, Oregon at approximately 43° N latitude. The Council decided, as a preliminary preferred alternative, not to extend the bocaccio rebuilding plan north of 40°10' N latitude to Cape Blanco based on SSC and Groundfish Management Team advice that doing so would not aid stock recovery and would only complicate current management.

Widow Rockfish

The new widow rockfish assessment indicates the stock is at 38.5% of virgin biomass, just short of the $B_{40\%}$ target. The previous assessment done in 2007 had projected the stock would be rebuilt to target levels by 2009.

However, the new assessment indicated the 2002 year class was not as strong as previously estimated, resulting in the estimated current biomass falling short of the target level called for in the rebuilding plan. The stock is currently expected to be rebuilt by 2010.

Cabezon

The new cabezon assessment assessed three substocks of cabezon—the southern California substock south of Pt. Conception, the northern California substock north of Pt. Conception, and an Oregon substock. All three substocks are above target levels, according to the new assessment.


Lingcod

The new lingcod assessment indicates a healthy lingcod population coastwide. The previous assessment done in 2005 indicated the stock was healthy on a coastwide basis; however, the southern substock was below target levels. The new assessment indicates the southern substock in waters off California is healthy at $B_{74\%}$, and the northern substock, in waters off Oregon and Washington, is at $B_{62\%}$.

Greenstriped Rockfish

The greenstriped rockfish assessment is the first ever for the species. This stock, which is an incidental catch species primarily in bottom trawl fisheries, was estimated to be healthy at $B_{81\%}$. The amount of discard mortality is highly uncertain for this stock.

Yelloweye Rockfish

The new yelloweye rockfish assessment indicates the stock is at 20.3% of its virgin biomass. The SSC noted that this assessment incorporates more data than previous assessments for this stock and the data treatments were more comprehensive. However, the assessment results do not vary significantly from the last full yelloweye assessment done in 2006 or the assessment update done in 2007. The SSC also cautioned against using the regional biomass trends in the assessment as the sole basis for deciding future regional harvest guidelines, since these biomass trends are highly uncertain given an uncertain catch history by region. The catch history of yelloweye and the estimated steepness are major areas of uncertainty in the assessment. 

Habitat Report, continued from page 6

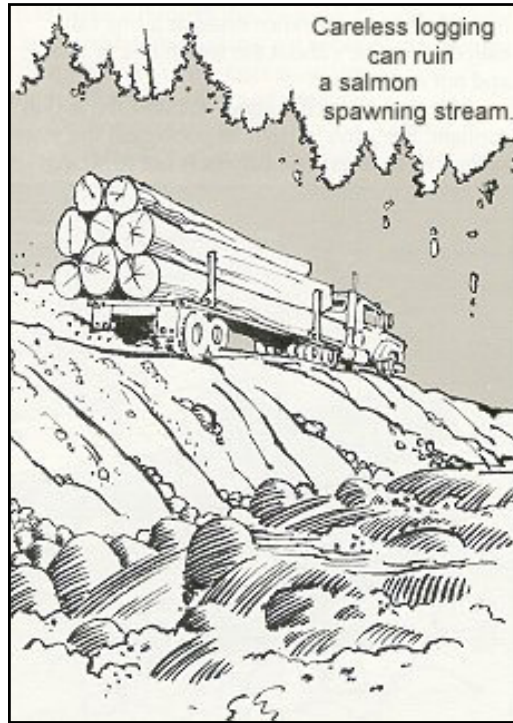
or public meetings; outreach, supplies and printing; travel and Council contract work and/or staffing necessary to develop, analyze, draft, and review the pertinent salmon EFH information.

Further review, including final stakeholder and public involvement, will occur through the Council process. Under the grant to the Council, the contractor and/or Council staff will review and synthesize information on the distribution and abundance of Pacific Coast salmonids; the impassible man-made barriers in each basin; existing and emerging threats to the EFH of Pacific Coast salmon; potential conservation measures to address those threats; and habitat types or locations important to the life history of Pacific Coast salmon that can be used to designate Habitat Areas of Particular Concern. This information will be used to draft a report for the Council for subsequent public review. It will provide the basis for the Pacific Coast salmon EFH five-year review and will be presented to the Pacific Council in September 2010. The Council will review the document for submittal to NMFS and consider whether a Fishery Management Plan Amendment process is warranted.

The Habitat Committee expressed its willingness to help the Oversight Panel to determine the project scope and scale, facilitate communication between the contractor and our respective agencies to identify new data and identify agency concerns, and provide input to update the list of threats to salmon EFH.

The HC believes it would

be best to develop a framework during the current EFH review process to facilitate the integration of new data and information for subsequent EFH re-



From "The Magnificent Journey." Source: Bonneville Power Administration.

views. Such a framework would facilitate coordination between management agencies.

California State Board of Forestry Letter

The HC received a report from Dick Butler of NMFS regarding California state forestry practices with impacts on listed coastal California coho. For the last 10 years, NMFS representatives have been working with the California Board of Forestry (BOF) to develop forest practice rules that address listed coho incidental take issues. NMFS has been urging the BOF to develop either no-take rules (similar to those under the Northwest Forest Plan) or move forward on the development of an ESA Sec-

tion 10(a)(1)(B) statewide permit that authorizes incidental take of listed salmonids.

NMFS is concerned about California forest practices for

many reasons, including the fact that NMFS has found them not to provide for the protection and conservation of salmon and steelhead and their freshwater habitats. NMFS has repeatedly stressed the need for BOF rules that are adequately protective of salmon and steelhead. In NMFS' opinion, the BOF has not appropriately addressed this issue. Therefore, there is a risk

that NMFS may be forced to take ESA enforcement actions against forest operators and the State of California. This could be avoided if the BOF could create adequate rules and/or engage in a habitat conservation planning process that would adequately protect these fish.


As a result of the HC's concerns, the Council directed the HC to draft a letter for consideration in November, addressed to the Governor of California, that encourages continued BOF discussions that result in state forest management practices that fully address the needs of listed salmon and steelhead, and highlights the need for quick action to avert ESA take enforcement by initiating a re-

quest to consult with NMFS on California forest practices.

NMFS Marine Fisheries Habitat Assessment Improvement Plan

The HC received a presentation by HC member Waldo Wakefield (NMFS) on the current status of the NMFS Marine Fisheries Habitat Assessment Improvement Plan (HAIP).

The Goals of the HAIP are to assist NOAA in developing the habitat science necessary to meet the mandates of the Magnuson Act; to improve our ability to identify EFH and Habitat Areas of Particular Concern; to provide information needed to support risk analyses of impacts to EFH; to reduce habitat-related uncertainty in stock assessments; to facilitate a greater number of Tier 3 Next Generation Stock Assessments; and to contribute to Ecosystem-based Fishery Management, Integrated Ecosystem Assessments (IEA), and Marine Spatial Planning.

The HAIP lays out a framework for incorporating habitat information into stock assessments. Recently, the HAIP has been reviewed by scientists in the various arms of NMFS, and the HAIP working group will meet in mid-October to incorporate comments from the reviews. The final HAIP report is expected to be published by early December. A National Habitat Assessment Workshop is being planned for May 2010 and will coincide with the National Stock Assessment Workshop. Objectives of the workshop are, in part, to strengthen and focus the NMFS national habitat science community, and to establish approaches for implementing recommendations from the HAIP Plan. 

NOAA Appoints Dr. Usha Varanasi as Interim Southwest Fisheries Science Center Director

National Marine Fisheries Service has asked Usha Varanasi, Ph.D., to assume oversight of the Southwest Fisheries Science Center (SWFSC) while the process to select a permanent Director is underway. In addition, the

announcement of a new Deputy Director is expected in mid-October.

Dr. Varanasi is the Director for the Northwest Fisheries Science Center (NWFS) in Seattle, Washington, and will work in

both capacities during the job recruitment process.

Varanasi has been the Director of the NWFS since 1994, when she became the first woman to lead one of NOAA Fisheries Service Science Centers. Dr. Vara-

nasi is an accomplished scientist, leader, educator and mentor for young science students.

The SWFSC employs approximately 250 people in La Jolla, Santa Cruz, Pacific Grove and Arcata, California. 

Table 1, Groundfish Trip Limits (see Inseason Adjustments story, page 2)

Subarea	Period	RCA Config		Sablefish	Longspine	Shortspine	Dover	Other Flat	Petrale	Arrowtooth	Slope Rk
		Inline	Outline								
No 40 10 Large & small footrope	1	See Attached Table		18,000	22,000	17,000	110,000	110,000	50,000	150,000	2,000
	2			18,000	22,000	17,000	110,000	110,000	2,000	150,000	2,000
	3			22,000	22,000	17,000	110,000	110,000	30,000	150,000	2,000
	4			24,000	22,000	17,000	110,000	110,000	30,000	150,000	2,000
	5			27,000	22,000	17,000	110,000	110,000	5,000	180,000	4,000
	6			27,000	22,000	17,000	110,000	110,000	2,000	180,000	4,000
No 40 10 SFFT	1	See Attached Table		5,000	3,000	3,000	40,000	90,000	16,000	90,000	2,000
	2			7,500	5,000	3,000	45,000	90,000	18,000	90,000	2,000
	3			7,500	5,000	3,000	45,000	90,000	18,000	90,000	2,000
	4			11,000	5,000	3,000	60,000	90,000	18,000	90,000	2,000
	5			11,000	5,000	3,000	60,000	90,000	5,000	90,000	4,000
	6			11,000	3,000	3,000	60,000	90,000	2,000	90,000	4,000
38 to 40 10	1	100	150	20,000	22,000	17,000	110,000	110,000	50,000	10,000	15,000
	2	100	150	20,000	22,000	17,000	110,000	110,000	30,000	10,000	15,000
	3	100	150	20,000	22,000	17,000	110,000	110,000	30,000	10,000	15,000
	4	100	150	20,000	22,000	17,000	110,000	110,000	30,000	10,000	10,000
	5	100	150	27,000	22,000	17,000	110,000	110,000	5,000	10,000	15,000
	6	100	200	27,000	22,000	17,000	110,000	110,000	2,000	10,000	18,000
S 38	1	100	150	20,000	22,000	17,000	110,000	110,000	50,000	10,000	55,000
	2	100	150	20,000	22,000	17,000	110,000	110,000	30,000	10,000	55,000
	3	100	150	20,000	22,000	17,000	110,000	110,000	30,000	10,000	55,000
	4	100	150	20,000	22,000	17,000	110,000	110,000	30,000	10,000	55,000
	5	100	150	27,000	22,000	17,000	110,000	110,000	5,000	10,000	55,000
	6	100	200	27,000	22,000	17,000	110,000	110,000	2,000	10,000	55,000

Table 2, Rockfish Conservation Area boundaries (see Inseason Adjustments story, page 2)

	Jan - Feb	Mar - Apr	May - Jun	Jul - Aug	Sep - Oct	Nov - Dec
North of 48 10	0 - 200*	0 - 200	0 - 150	0 - 150	0 - 200	0 - 200
48 10 to 45 46	75 - 200*	75 - 200	75 - 150	100 - 150	75 - 200	75 - 200
45 46 to 40 10			75 - 150	100 - 200	75 - 200	

Note: petrale areas closed in period 6


Halibut regulations continued from page 5

associated with the halibut fishery under current management and this change is not expected to increase yelloweye harvest above current estimates. In any event, WDFW will monitor Washington's yelloweye harvest, and will take inseason action as appropriate to ensure our harvest target is not exceeded.

Oregon Central Coast Subarea

- Adjust the number of open days per week in the summer

all-depth fishery from three to two days.

In 2009 the harvest during the August 7-9 three day all-depth opening exceeded the remaining sub-area quota, requiring closure of both the all-depth fishery and the inside 40-fathom fishery. Reducing the summer all-depth fishery from three to two day opens is intended to extend the duration of the all-depth fishery and help prevent the same situation from occurring in 2010. 

Schedule of Events

For more information on these meetings, please see our website (www.pcouncil.org/events/csevents.html) or call toll-free (866) 806-7204.

Salmon Advisory Subpanel Conference Call

Purpose: To review briefing materials and develop recommendations for the November Council meeting.

Date: October 22, 2009

Location (listening station): Council office, Portland

Contact: Chuck Tracy (chuck.tracy@noaa.gov)

Enforcement Consultants Conference Call

Purpose: To review Council agenda and prepare reports for the November Council meeting

Date: October 26, 2009

Location (listening station): Council office, Portland

Contact: Jim Seger (jim.seger@noaa.gov)

Pacific Fishery Management Council Meeting

Dates: October 30 - November 5, 2009

Location: Hilton Orange County/Costa Mesa

Contact: Don McIsaac (donald.mcisaac@noaa.gov)

Salmon Plan Amendment Committee

Purpose: To address annual catch limit and accountability measure requirements for the Council's salmon plan.

Date: November 5, 2009

Location: Council office, Portland

Contact: Chuck Tracy (chuck.tracy@noaa.gov)



The public comment deadlines for the November Council meeting are October 14 and October 25 (supplemental)!
(See p. 12)



Pacific Council News
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, Oregon 97220-1384