North Pacific Fishery Management Council

Current Issues

March 2010

Fish Conservation • Ecosystem Management • Minimizing Bycatch • Limited Access Privileges • Allocation and Access • Research and Monitoring

A Message from the Chairman:

It is my pleasure to provide you with this brochure that summarizes the topics and issues currently being addressed by the Council. I believe that this synopsis will be a valuable reference document for stakeholders familiar with the Council, as well as those who have not yet engaged in the process. For each issue, background information is provided along with a status report on upcoming Council action.

The North Pacific Fishery Management Council has a strong record of responsible stewardship using a scientifically-based, transparent, and deliberative process with public input incorporated into decision-making. The Council is committed to enhancing stakeholder involvement in the management of our fisheries. This publication was developed to provide fishermen and others with readily available and accessible information. I hope you find it useful.

Thank you for taking the time to learn about the issues the Council will be addressing in the near future.

Eric A. Olson
Council Chairman

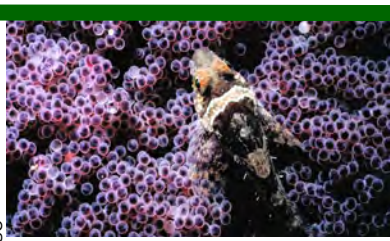
Cover photos courtesy of Herman Savikko

Current Issues

Fish Conservation


Rex Murphy

Ecosystem Management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Minimizing Bycatch


Herman Savikko

Limited Access Privileges


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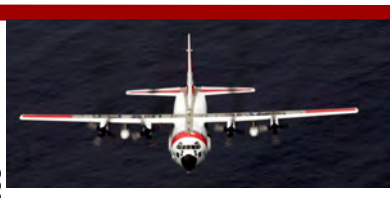
Allocation and Access


AFSC

Research and Monitoring


USCG

Common Acronyms

ABC	Acceptable Biological Catch
AFA	American Fisheries Act
AP	Advisory Panel
ADF&G	Alaska Department of Fish and Game
AFSC	Alaska Fisheries Science Center
AMEF	Alaska Marine Ecosystem Forum
APICDA	Aleutian and Pribilof Island Community Development Association
BSAI	Bering Sea and Aleutian Islands
CDQ	Community Development Quota
CP	Catcher Processor
CV	Catcher Vessel
EA	Environmental Assessment
EBS	Eastern Bering Sea
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EPIRB	Emergency Position Indicating Radio Beacon
ESA	Endangered Species Act
F/V	Fishing Vessel
FEP	Fishery Ecosystem Plan
FR	Federal Register
FMP	Fishery Management Plan
GHL	Guideline Harvest Level
GOA	Gulf of Alaska
GRS	Groundfish Retention Standard
HAPC	Habitat Areas of Particular Concern
IFQ	Individual Fishing Quotas
IPHC	International Pacific Halibut Commission
IRFA	Initial Regulatory Flexibility Analysis
IR/IU	Improved Retention/Improved Utilization
LAMP	Local Area Management Plan
LAPP	Limited Access Privilege Program
LLP	License Limitation Program
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MPA	Marine Protection Area
MSST	Minimum Stock Size Threshold
MSY	Maximum Sustainable Yield
mt	Metric Ton
NEPA	National Environmental Protection Act
nm	Nautical Miles
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPFMC	North Pacific Fishery Management Council
ODFW	Oregon Department of Fish and Wildlife
OFL	Overfishing Level
POP	Pacific ocean perch
PSMFC	Pacific States Marine Fisheries Commission
PSC	Prohibited species catch
QS	Quota Share
RIR	Regulatory Impact Review
SAFE	Stock Assessment and Fishery Evaluation
SFA	Sustainable Fisheries Act
SHARC	Subsistence Halibut Registration Certificate
SSC	Scientific and Statistical Committee
TAC	Total allowable catch
USCG	United States Coast Guard
USFWS	United States Fish and Wildlife Service
VMS	Vessel Monitoring System
WDFW	Washington Department of Fish and Wildlife

Herman Savikko

Diana Evans

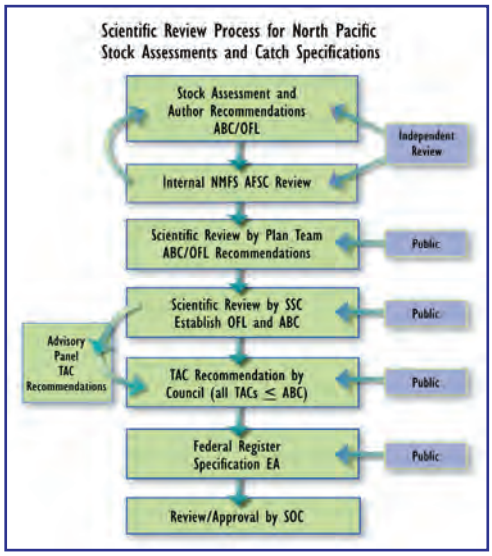
Groundfish Catch Limits

A CORNERSTONE FOR SUSTAINABILITY

Strict annual catch limits for every target fishery provide the most basic and effective management tool to ensure sustainable fisheries. In the North Pacific, a rigorous process in place for over 30 years ensures that annual quotas are set at conservative, sustainable levels.

SCIENTIFIC LIMITS

Three reference points are used for management of groundfish fisheries in the North Pacific. The **overfishing level** (OFL) is the harvest limit which should never be exceeded. It is based on the fishing mortality rate associated with producing the maximum sustainable yield on a continuing basis. The **acceptable biological catch** (ABC) is set lower than the OFL, as the annual sustainable harvest limit. The buffer between these reference points allows for uncertainty in single species stock assessments, ecosystem considerations, and operational management of the fishery. The **total allowable catch** (TAC) is the annual harvest limit that incorporates social and economic considerations. The FMP prescribes that TAC may equal but never exceed ABC, which is set lower than OFL. The sum of TACs for all groundfish stocks must also remain within the optimum yield range defined in the FMP. In the BSAI, the upper limit of the range is 2 million mt, which can be constraining. TAC may be set lower than ABC for a variety of reasons, such as to remain under the 2 million mt optimum yield limit; to increase a rebuilding rate or address other conservation issues; to limit incidental bycatch, for example of halibut; or to account for state water removals. Fisheries are managed in-season to achieve the TACs without exceeding the ABC or OFL.



Flow chart depicting the scientific review process for stock assessments and establishment of catch specifications, where TAC ≤ ABC < OFL.

The reference points and catch limits are specified annually through an established process. The annual process of determining OFL and ABC specifications begins with the assignment of each stock to one of six "tiers" based on the availability of information about that stock. Stocks in Tier 1 have the most information, and those in Tier 6, the least. Application of a control rule for each tier prescribes the resulting OFL and ABC for each stock. For many groundfish stocks, the estimate of $F_{40\%}$ is used as a surrogate for F_{ABC}. $F_{40\%}$ is the fishing mortality rate at which the spawning biomass per recruit is reduced to 40% of its value in the equivalent unfished stock. The control rules for Tiers 1-3 also provide for automatic rebuilding, because if a stock falls below target biomass levels, ABC and OFL are drastically reduced.

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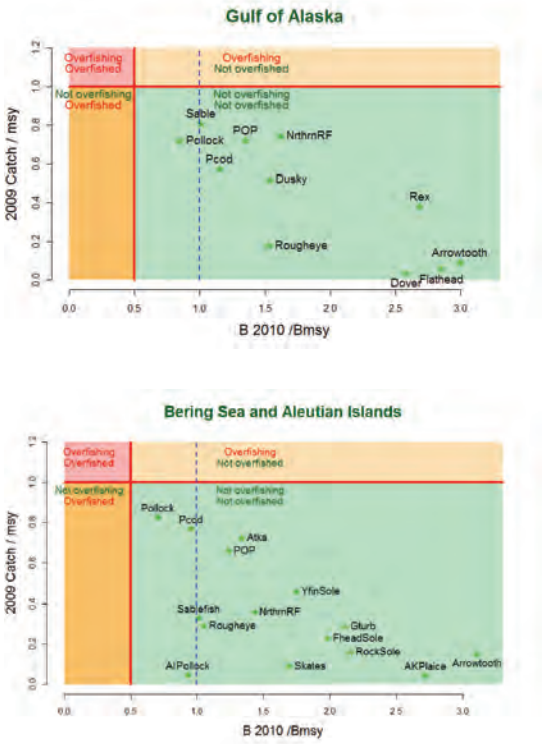
Goodman, D. , Mangel, M, Parkes, G, Quinn, T, Restrepo, V., Smith, T., and K. Stokes. 2002. Scientific Review of the Harvest Strategy Currently Used in the BSAI and GOA Groundfish Fishery Management Plans, available on the Council's website.

FMP References

Forage fish category: BSAI Groundfish FMP Amendment 56, GOA Groundfish FMP Amendment 56; 64 FR 10952, implemented January 27, 1999.



Status of modeled GOA and BSAI groundfish stocks, relative to overfished and overfishing thresholds (indicated by red lines). The blue line indicates the target biomass, B_{MSY}.

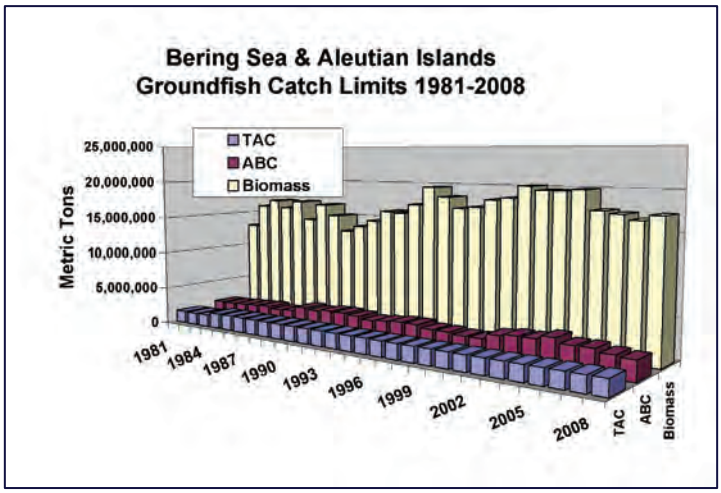
Scientists write an assessment of the status of each stock (or group of stocks), and include alternate model simulations and tier assignments to arrive at a recommendation for OFLs and ABCs. The Groundfish Plan Teams compile these assessments into a Stock Assessment and Fishery Evaluation (SAFE) report, develop their own recommendations (which may or may not agree with the stock assessment author), and present this information to the Council and its Scientific and Statistical Committee (SSC) and Advisory Panel (AP). The SSC is responsible for setting the Council's OFL and ABC limits, using the SAFE reports and Plan Team recommendations. The SSC retains the flexibility to adjust ABC and OFL values from the control rule, based on factors such as multispecies interactions and ecosystem considerations. The Council then sets the TAC levels at or below the ABC levels, incorporating recommendations from the Advisory Panel and public testimony.

POSITIVE RESULTS

In 2002, the Council commissioned an independent review of the basic exploitation strategies by a panel of internationally recognized scientists. The panel concluded that in a single-species/target-stock context, the TAC-setting process employed by the Council is a very conservative one, and the in-season monitoring and management system is adequate for implementing the TACs with little risk of exceeding them. Annual catch limits have resulted in abundant fish stocks and sustainable fisheries. No groundfish stock is overfished or undergoing overfishing. Further, most stocks are well above target biomass levels (shown in the figure as B_{MSY}, the biomass level that produces maximum sustainable yield).

ON THE HORIZON

In April 2010, the Council is scheduled to take final action on an amendment to revise the FMP to comply with the new National Standard guidelines. Because ABCs are already specified for all stocks and complexes, the amendment will focus on defining the target stocks that are "in the fishery", eliminating the other species category to manage squids, sculpins, sharks, and octopus separately, and to manage prohibited species and forage fish in the ecosystem component category. Trailing amendments will examine possible changes in the management of non-targets stocks, including grenadiers, as well as further adjustments to account for uncertainty in the specification of ABCs.



Estimates of biomass, acceptable biological catch (ABC), and total allowable catch (TAC), in millions of tons, for groundfish in the BSAI from 1981-2008.

NOAA Fisheries

Non-Target Species

SPECIES CATEGORIES DETERMINE MANAGEMENT STRATEGY

The GOA and BSAI Groundfish Fishery Management Plans (FMPs) define five categories of species, with different management strategies for each category. Species in all but the 'target' category are caught incidentally in directed fisheries for groundfish species.

- **Target species** are commercially important groundfish species for which a specific total allowable catch (TAC) is established annually, for individual species or species groups.
- **Prohibited species** in the FMP include several species of crabs, Pacific halibut, Pacific herring, steelhead trout, and the five species of Pacific salmon. As these are directly targeted in other domestic fisheries, they must be returned to the sea with a minimum of injury when caught in groundfish fisheries. In some cases, the FMP establishes catch limits for these species, such that once the limit is reached, directed groundfish fisheries in which the species is caught as bycatch are closed.

The remaining species categories are those typically addressed under 'non-target species' management.

- The **other species** category includes species that are not currently commercially important, and which are not generally targeted by the fisheries. The assemblage includes sharks, sculpins, octopi, squids (in the GOA) and skates (in the BSAI). An aggregate TAC is set for this species category in each FMP area.
- The **forage fish** category includes a number of species that play a central role in the North Pacific Ocean food chain, and are consumed by a wide variety of fish, marine mammals, and seabirds. This category includes all species in the families Osmeridae, Bathylagidae, Myctophidae, Ammodytidae, Trichodontidae, Pholidae, Stichaeidae, Gonostomidae, and euphausiid shrimps. This category was created in the FMP in 1998, when directed fishing was prohibited for these species, as a recognition of their importance in the food web. A small amount of forage fish caught incidentally in other groundfish fisheries may be retained, and typically is processed into fishmeal. The forage fish incidental catch consists primarily of osmerids (capelin, eulachon, other smelts). Collectively, forage fish form only a small part of the groundfish total catch, typically comprising less than 0.1 percent of the directed harvests.
- The **nonspecified species** category consists of all species not listed in the four groups above, including invertebrates. None of these species are managed. However, catches of some of these species in the commercial fishery are recorded by observers, as are catches during survey cruises.

Jay Orr, NMFS

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Reuter, R.F., M.E. Conners, J. DiCosimo, S. Gaichas, O. Ormseth, and T.T. Tenbrink. 2010. Managing non-target, data-poor species using catch limits: lessons from the Alaskan groundfish fishery. Fisheries and Management Ecology. *In Press.*

FMP References

BSAI Groundfish FMP, GOA Groundfish FMP, and the ACL analysis are all available on the Council's website.

Gordon Kruse

REVISING MANAGEMENT OF 'OTHER SPECIES'

The other species categories in the BSAI and GOA aggregate very different groups of animals under a common quota. Concerns that a species or species group could be disproportionately exploited under the aggregate TAC have resulted in a proposal to revise how these groups are managed. The 'other species' category includes species with diverse life histories, and in many cases little is known about their population dynamics and structure. Species that are long-lived and have low reproductive potential (sharks and skates) are particularly vulnerable to depletion, because it takes them longer to rebound from natural and fishing mortality. A lack of life history data and fishing data hampers assessments of stock status and bycatch effects.

The Council has taken a stepwise process for addressing this issue. In 2005, skates were removed from the GOA 'other species' assemblage and now are managed under separate TACs for big, longnose, and 'other' skates. In 2006, the TAC for the GOA other species assemblage was revised from an inflexible formula (5% of the combined TACs of all species not in the 'other species' complex) to allow the Council to set a lower TAC if appropriate. In 2009, the Council set an overfishing level and acceptable biological catch for this complex, and sets a biologically based TAC. Beginning in 2011, the Council will eliminate the other species assemblages, define these groups as being "in the fishery," and set separate annual catch limits for sharks, skates, squids, sculpins, and octopuses in the BSAI and GOA. Prohibited species and forage fish species will be defined under a new ecosystem component (EC) category, and non-specified species will be removed from the FMPs.

Rex Murphy

ON THE HORIZON

The Council's Non-Target Species Committee will develop management alternatives to (1) move grenadiers into the FMPs, either in the fishery or in the EC category; (2) move squids and/or octopuses into the EC category; and (3) address management issues (e.g., early closures) related to separate ACLs for sharks, squids, sculpins, and octopuses. Council action may occur in 2011 for the 2012 fishing year.

NMFS RACE


Maria Shawback

Crab Catch Limits

FEDERAL AND STATE PARTNERSHIP

The BSAI King and Tanner Crab Fishery Management Plan (FMP) establishes a State and Federal cooperative management regime that largely defers crab fisheries management to the State of Alaska, with Federal oversight. The FMP defines three categories of management measures:

1. those that are fixed in the FMP and require a Federal FMP amendment to change;
2. those that are framework-type measures that the State can change following criteria set out in the FMP; and
3. those measures that are neither rigidly specified nor frameworked in the FMP and are at the discretion of the State.

In the GOA, crab fisheries are managed solely by the State of Alaska. For most regions in the GOA, actual abundance estimates are limited and commercial fishing has been closed.

CATCH SPECIFICATIONS FOR BSAI CRAB FISHERIES

Specifying **overfishing levels** (OFLs) for each fishery is a Federal responsibility. The Magnuson-Stevens Fishery Conservation and Management Act requires each FMP to specify criteria for determining when a fishery is overfished or when overfishing is occurring. The Council and NOAA Fisheries annually evaluate total catch levels relative to OFLs to determine if stocks are overfished or are approaching an overfished condition. If either of these occurs, the Council must immediately end overfishing and develop an FMP amendment to rebuild the stock within two years.

The State is responsible for setting allowable harvest levels for the crab fisheries, following guidelines in the crab FMP. Catch levels established by the State must be in compliance with OFLs established in the FMP to prevent overfishing. For those stocks included under the Crab Rationalization Program (see below), a **total allowable catch** (TAC), expressed in pounds of crab, is specified. For other stocks, a **guideline harvest level** (GHL) is the preseason estimated level of allowable harvest which will not jeopardize the sustained yield of the stock. The GHL is expressed as a range, to allow the State to make in-season management decisions based on current data obtained from the fishery.

ALLOCATION OF CATCH LIMITS

The Crab Rationalization Program allocates BSAI crab resources among harvesters, processors, and coastal communities. 100% of the TAC is allocated as harvest shares, and processor quota shares are also issued. Crab fishing under the program began on August 15, 2005. Several crab fisheries under the FMP are excluded from the Program, including the Norton Sound red king crab fishery, which is operated under a "superexclusive" permit program intended to protect the interests of local, small-vessel


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Stock Assessment and Fishery Evaluation Report for the King and Tanner Crab Fisheries, 2007, available on the Council website.

Environmental Assessment for proposed Amendment 24, to revise overfishing definitions, 2007. NPFMC, available on the Council website.

FMP References

Fishery Management Plan for Bering Sea / Aleutian Islands King and Tanner Crabs, available on the Council website.

Revised overfishing definitions: proposed Amendment 24 to the BSAI Crab FMP.

participants. An LLP license is required to participate in the FMP crab fisheries excluded from the Program.

The Community Development Quota (CDQ) program receives 10% of the TAC for all fisheries in the crab rationalization program except Western Aleutian stocks, and 7.5% of the Norton Sound fishery. Sixty-five communities located along the Bering Sea are eligible for the CDQ program, and these communities are aligned into six CDQ groups. 10% of the Western Aleutian Island golden king crab fishery is allocated to an entity representing the community of Adak. This allocation is managed similar to allocations made under the CDQ program.

2009/2010 TACs for major crab fisheries

Bristol Bay red king crab: 16,009,000 lbs

Western Aleutian Islands (Adak) golden king crab (west of 174°W): 2,835,000 lbs

Eastern Aleutian Islands (Dutch Harbor) golden king crab (east of 174°W): 3,150,000 lbs

Bering Sea snow crab: 48,017,000 lbs

Bering Sea Tanner crab (east): 1,350,000 lbs

Bering Sea Tanner crab (west): Closed

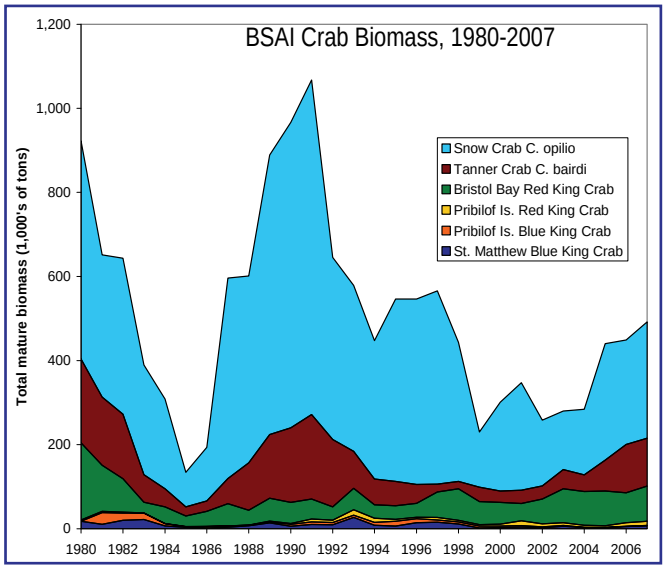
St. Matthew Island blue king crab 1,167,000 lbs

REVISED OVERFISHING DEFINITIONS

In December 2007, the Council adopted amendment 24 to revise the OFLs specified in the crab FMP. The amendment established a framework OFL tier system that provides a mechanism to continually improve the status determination criteria as new information becomes available. The Council's Crab Plan Team and Scientific and Statistical Committee annually review the stock assessments, including models and tier levels which determine how OFL is calculated for each stock. Overfishing is determined by calculating the total catch removals from all fishing sources compared to the calculated OFL for the same time period. Amendment 24 also removed twelve state-managed stocks from the FMP, and are now be the sole responsibility of the State of Alaska.

ON THE HORIZON

The Council is evaluating options to meet the revised National Standard 1 guidelines on establishing annual catch limits. This will require modification to the OFL tier system to include specification of an ABC level below OFL. The ABC may be based on a probability approach (P*) that incorporates uncertainty about the OFL into the ABC specification. The Council is scheduled to take final action on this amendment in October 2010.



Mark Fina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Rebuilding Plans

REBUILDING DEPLETED STOCKS

The Sustainable Fisheries Act of 1996 required that overfished stocks be rebuilt as soon as possible, but no longer than in ten years, except under special circumstances. If the Secretary of Commerce determines that a fishery is overfished or approaching an overfished condition, the responsible fishery management council must revise the management program to stop overfishing, if it is occurring, and rebuild the stocks. Since 1996, there have been four stocks in the North Pacific that were deemed 'overfished', and rebuilding plans were developed and implemented for each. All four stocks were Bering Sea/Aleutian Island crab stocks. Environmental conditions for these stocks have resulted in sequential years of poor recruitment and contributed, with other factors, to the decline in abundance.

A stock under the BSAI King and Tanner Crab fishery management plan (FMP) is deemed overfished if the spawning biomass is below a minimum stock size threshold (MSST), which is defined as 50% of the target biomass level (B_{MSY}). Currently, the rebuilding program for each stock includes adjustments to the State of Alaska harvest strategy, bycatch controls, and habitat protection measures. Stocks are considered rebuilt if the estimate of biomass is above the B_{MSY} level for two consecutive years.

BSAI Tanner Crab. A rebuilding program for Tanner crab (*Chionocetes bairdi*) was adopted by the Council in October 1999. The rebuilding program established a very conservative harvest strategy (including low exploitation rates and threshold female biomass levels), and reduced crab bycatch limits for the trawl fisheries. It was projected that the stock had a 50% probability of rebuilding to the B_{MSY} level in 10 years. The stock met the B_{MSY} threshold (189.6 million pounds) in 2007 and was considered fully rebuilt, but has since dropped to near its MSST (i.e., considered approaching 'overfished'), necessitating development of a new rebuilding plan.

BSAI Snow Crab. A rebuilding program for snow crab (*C. opilio*) was adopted by the Council in June 2000. Rebuilding measures included very low exploitation rates, stair-stepped based on spawning biomass; minimum thresholds for establishing guideline harvest levels (GHLs); pot gear modifications to provide escapement of female and juvenile crabs; and a fishery closure when the stock falls below 50% MSST. Under the rebuilding plan, the stock had a 50% probability of rebuilding to the B_{MSY} level (921.6 million pounds) in 7 to 10 years. Biomass has been oscillating slightly above and below the MSST threshold, but the stock has not rebuilt within the 10 year timeframe, so a new rebuilding plan is being developed.


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For More Information

Stock Assessment and Fishery Evaluation Report for the King and Tanner Crab Fisheries, 2009, available on the Council's website.

FMP References

BSAI Tanner Crab: BSAI Crab Amd 11; 65 FR 38216, implemented June 20, 2000.

BSAI Snow Crab: BSAI Crab Amd 14; 66 FR 742, implemented January 4, 2001.

St Matthew Blue King Crab: BSAI Crab Amd 15; 65 FR 76175, implemented December 6, 2000.

Pribilof Blue King Crab: BSAI Crab Amd 17; 69 FR 17651, implemented April 5, 2004.

Forrest Bowers

St. Matthew Blue King Crab. A rebuilding program for St. Matthew blue king crab was adopted by the Council in June 2000. The harvest strategy includes a conservative harvest rate based on biomass, a minimum stock threshold for fishery opening, minimum GHL requirements, and a maximum legal male harvest rate. Rebuilding measures also included pot gear modifications to provide escapement of female and juvenile crabs, and closure of State waters around the island to all groundfish fishing to protect vulnerable egg-bearing female blue king crab that occupied these areas. Under the rebuilding plan, the stock had a 50% probability of rebuilding to the B_{MSY} level (22.0 million pounds) in 6 years. In 2009, the stock biomass was above the B_{MSY} level for the second consecutive year and is considered rebuilt.

Pribilof Blue King Crab. A rebuilding program for Pribilof blue king crab was adopted by the Council in October 2003. Bycatch controls and habitat protection measures for groundfish and crab fleets had already been implemented around the Pribilof Islands. Under the rebuilding plan, fishing is prohibited until the stock is completely rebuilt to B_{MSY} (13.2 million pounds). In addition, once rebuilt, the plan establishes a delayed fishery opening for the second year the stock is above a minimum threshold. Under the rebuilding plan, the stock was projected to rebuild to the B_{MSY} level in 9-10 years, at a 50% probability. The stock remains at very low stock size, and little or no recruitment is apparent. A new rebuilding plan is being developed for this stock.

All trawling is prohibited within the Pribilof Islands Habitat Conservation Area, to protect blue king crab habitat, as well as to reduce the bycatch of juvenile crab and halibut.

ON THE HORIZON

The Council is in the process of developing new or revised rebuilding plans for Bering Sea Tanner crab, snow crab, and Pribilof Islands blue king crab. Final action on these rebuilding plans is scheduled for October 2010.

Alaska Department of Fish and Game

Scallop Management

A SMALL FISHERY

The Alaska weathervane scallop (*Patinopecten caurinus*) fishery started in 1967 when two vessels harvested weathervane scallops from fishing grounds east of Kodiak Island. From its inception through early 1993, the scallop fishery was managed in-season without a defined fishery management plan. Closed waters and seasons were established to protect crabs and crab habitat. When catches declined in one bed, the few vessels participating would move to new areas.

Catch has fluctuated somewhat since the inception of the fishery. Catches in the early years were high, reaching a peak of 1.8 million pounds of shucked scallop meats in 1969. More recent catches have been in the order of 500,000 pounds per year, with ex-vessel prices ranging from $5.25/lb in 2002 to $8.00/lb in 2006.

FEDERAL MANAGEMENT NEEDED

In the early 1990s, the Alaska weathervane scallop fishery expanded rapidly, with an influx of boats from the East Coast of the United States. Concerns about overharvest of scallops and bycatch of other commercially important species, such as crabs, prompted the Commissioner of the Alaska Department of Fish and Game (ADF&G) to designate the weathervane scallop fishery a high-impact emerging fishery in 1993. This designation required ADF&G to close the fishery and implement an interim management plan prior to reopening. The interim management plan included a provision for 100% onboard observer coverage to monitor crab bycatch and to collect biological and fishery data.

From 1967 until early 1995, all vessels participating in the Alaska scallop fishery were registered under the laws of the State of Alaska. Scallop fishing in both State and Federal waters was managed under state jurisdiction. In January 1995, the captain of a scallop fishing vessel returned his 1995 scallop interim use permit card to the State of Alaska Commercial Fisheries Entry Commission in Juneau and the F/V Mr Big proceeded to fish scallops in Alaska Federal waters with total disregard to harvest limits, observer coverage, and other management measures and regulations. In response to this unanticipated event, Federal waters were closed to scallop fishing by emergency rule to control unregulated fishing until a fishery management plan (FMP) could be implemented to close the fishery.

The Alaska Scallop FMP, which was approved on July 26, 1995, established a 1-year interim closure of federal waters to scallop fishing to prevent uncontrolled fishing. The fishery was reopened with Amendment 1 on August 1, 1996.

The scallop fishery is jointly managed by the National Marine Fisheries Service and ADF&G under the FMP. Management measures in the FMP fall into two categories: Category 1 measures are those delegated to the State for implementation, while Category 2 measures are limited access management measures and other measures which are fixed in the FMP, implemented by Federal regulation, and require an FMP amendment to change.

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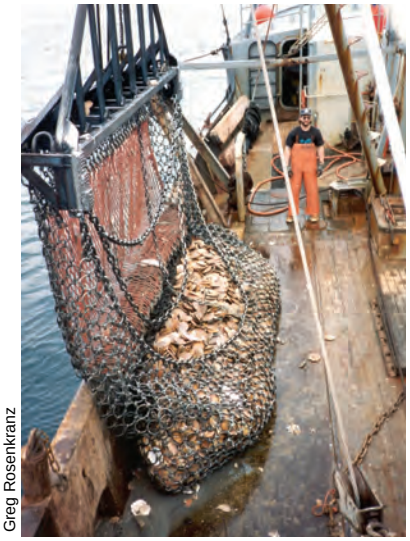
For More Information

Scallop Stock Assessment and Fishery Evaluation report, available on the Council's website.

FMP References

Fishery Management Plan for the Scallop Fishery off Alaska, available on the Council's website.



Greg Rosenkranz

Greg Rosenkranz

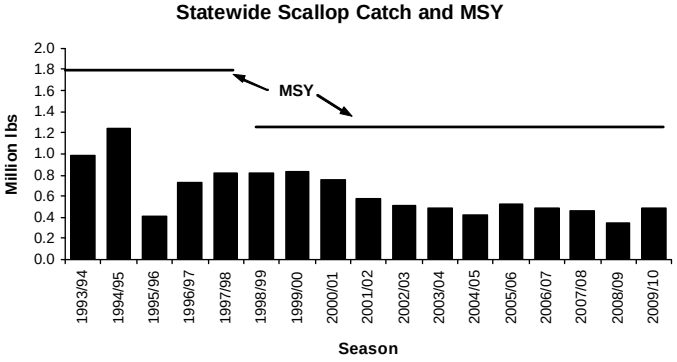
LIMITED ENTRY

In 1997, the Council adopted Amendment 2, a vessel moratorium under which 18 vessels qualified for Federal moratorium permits to fish weathervane scallops in Federal waters off Alaska. In 1999 the Federal moratorium program was replaced by a more restrictive License Limitation Program (Amendment 4). The Council created a total of 9 licenses with no area endorsements; each vessel is permitted to fish statewide. However, vessels that fished exclusively in the Cook Inlet Registration Area, where a single 6-foot dredge was the legal gear type during the qualifying period, were limited to using the same gear when fishing outside Cook Inlet. In 2005, the gear restriction was later modified under Amendment 10 to allow these vessels to fish 2 dredges with a combined maximum width of 20 feet.

The License Limitation Program established a small closed class of license holders. Beginning in 2000, owners of 6 of the 9 licenses formed the North Pacific Scallop Cooperative under authority of the Fishermen's Cooperative Marketing Act. The cooperative regulates individual vessel allocations within the catch limits and crab bycatch caps, under the terms of their cooperative contract. Non-cooperative vessels are not bound by any contract provisions. The cooperative does not receive an exclusive allocation of the scallop harvest. Some owners opted to remove their boats from the fishery and arranged for their shares to be caught by other members of the cooperative.

OVERFISHING DEFINITIONS

The Magnuson-Stevens Act requires FMPs to establish an overfishing level for each stock. Overfishing is a level of fishing mortality that jeopardizes the capacity of a stock to produce maximum sustainable yield (MSY) on a continuing basis. Amendment 6 to the scallop FMP established the statewide MSY for weathervane scallops at 1.24 million lbs of shucked meats, based on the average catch from 1990-1997, excluding 1995. Optimum Yield was defined as 0–1.24 million lbs, and the overfishing control rule was defined as a fishing rate in excess of the natural mortality rate, which has been estimated at 12% per year statewide. The fishery is managed conservatively, with harvest levels well below MSY.



ON THE HORIZON

The Council is considering options for establishing annual catch limits for scallops to comply with the Magnuson-Stevens Act and revised National Standard guidelines. The analysis for this action examines the impacts of establishing an OFL and ABC for weathervane scallops and the appropriate management of non-target scallop stocks. Final action to amend the scallop plan is scheduled for final action in October 2010.

Jeff Field

IDENTIFY AND PROTECT FISH HABITAT

The Magnuson-Stevens Act was amended in 1996 by the Sustainable Fisheries Act (SFA), which required each regional fishery management council to identify and protect essential fish habitat (EFH). EFH is defined in the Act as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." The Councils were required by the SFA to amend their fishery management plans (FMPs) to:

- identify and describe EFH for all managed species;
- describe adverse impacts to EFH from fishing and non-fishing activities;
- recommend conservation and enhancement measures to protect and restore habitat; and
- recommend measures that minimize, to the extent practicable, adverse affects on EFH caused by fishing.

The North Pacific Council completed preparation of EFH amendments for each of its five FMPs in 1998. Following a legal challenge in 2000 on the sufficiency of these amendments to meet the requirements of the National Environmental Policy Act, the U.S. District Court required preparation of a revised EIS analysis.

MARINE PROTECTED AREAS ESTABLISHED

A 2,500+ page environmental impact statement was prepared to evaluate the total impacts of fishing on EFH, and evaluate alternatives to describe and conserve EFH from fishing impacts. The Council revised existing descriptions of EFH by incorporating the most recent scientific information and improved mapping. EFH is described as habitats within a general distribution for a life stage of a species, based on GIS data analysis. The Council also adopted a new approach for identifying habitat areas of particular concern as specific sites within EFH, thereby focusing conservation efforts on particular areas.

Although the analysis concluded that fisheries do have long term effects on habitat, these impacts were determined to be minimal and not detrimental to fish populations or their habitats. Nevertheless, in February 2005, the Council adopted several new marine protected areas (MPAs) to conserve EFH.

To minimize the effects of fishing on EFH, and more specifically to address concerns about the impacts of bottom trawling on benthic habitat (particularly on coral communities) in the Aleutian Islands, the Council took action to prohibit all bottom trawling in the Aleutians, except in small discrete "open" areas. Over 95% of the management area is closed to bottom trawling (277,100 nm^2). Additionally, six areas with especially high density coral and sponge habitat are closed to all bottom-contact fishing gear (longlines, pots, trawls). These "coral garden" areas, which total 110 nm^2, are essentially marine reserves. To improve monitoring and enforcement of the Aleutian Island closures, a vessel monitoring system is required for all fishing vessels in the Aleutian management area.

In the Gulf of Alaska, bottom trawling for all groundfish species is also prohibited in 10 designated areas along the continental shelf. These MPAs, which are thought to contain high relief bottom and coral communities, total 2,086 nm^2.

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For More Information

Witherell, D., and D. Woodby. 2005. Application of marine protected areas for sustainable production and marine biodiversity off Alaska. Marine Fisheries Review 67(1)1-27. spo.nmfs.noaa.gov/mfr671/mfr6711.pdf

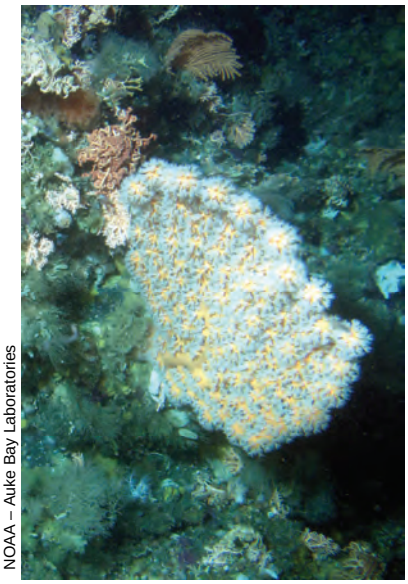
Stram, D., and D. Evans. 2009. Fishery management response to climate change in the North Pacific. ICES J. of Marine Science 66, p. 1633-1639. Available on the Council website.

FMP References

Revised EFH amendments: BSAI Groundfish Amendment 78, GOA Groundfish Amendment 73, BSAI Crab Amendment 16, Scallop Amendment 9, Salmon Amendment 7; 71 FR 36694, effective date June 28, 2006.

Bering Sea Habitat Conservation: proposed BSAI Groundfish Amendment 89; 73 FR 43362, effective date August 25, 2008.

Bering Sea Flatfish Fishery Modified Gear Requirement, proposed BSAI Groundfish Amendment 94.



NOAA – Auke Bay Laboratories

FOCUS ON THE BERING SEA

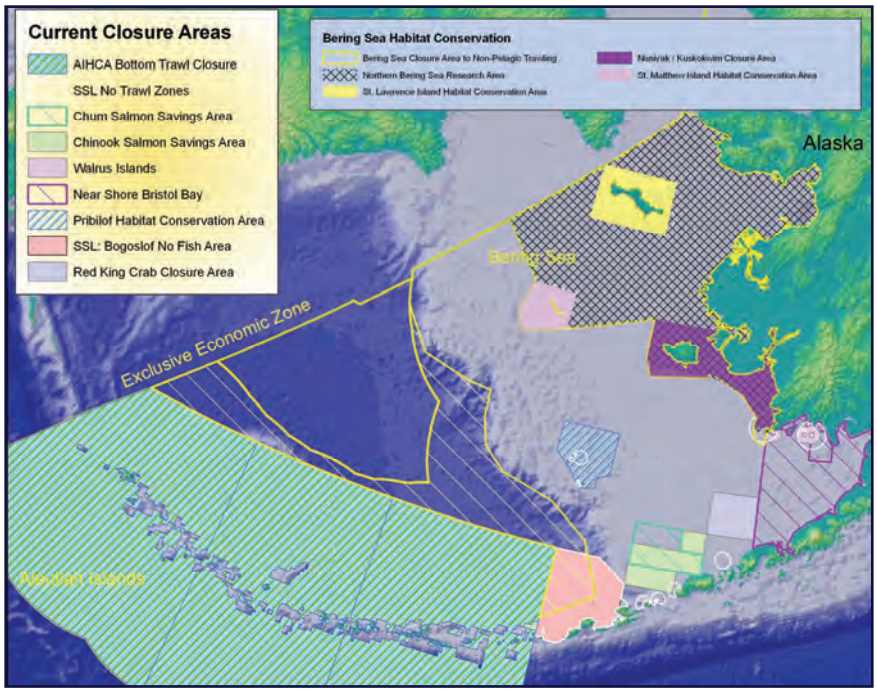
In June 2007, the Council adopted precautionary measures to conserve benthic fish habitat in the Bering Sea by "freezing the footprint" of bottom trawling by limiting trawl effort only to those areas more recently trawled. The new measures prohibit bottom trawling in a deep slope and basin area (47,000 nm^2) and the Northern Bering Sea Research Area that includes the shelf waters to the north of St. Matthew Island (85,000 nm^2).

The entire Northern Bering Sea Research Area is closed to bottom trawling while a research plan is developed. The research plan may include an adaptive management design, which could allow bottom trawling in designated areas to evaluate effects, or research using other experimental fishing approaches. Specific areas within the Northern Bering Sea Research Area, however, will always remain closed to bottom trawling. These MPAs were established to conserve blue king crab habitat and other EFH where subsistence harvesting and small-scale local fisheries take place, and include the nearshore areas of Nunivak Island and Kuskokwim Bay, and around St. Lawrence and St. Matthew Islands. The research plan may also identify additional protection measures for blue king and snow crab, marine mammals, ESA-listed species, and subsistence needs for western Alaska communities in nearshore areas.

In October 2009, the Council approved restrictions for the Bering Sea flatfish fishery that would require the use of elevating devices (e.g., discs or bobbins) on the trawl sweeps, to raise the sweeps off the seabed and limit adverse impacts of trawling on the seafloor. If approved by the Secretary of Commerce, these restrictions will be implemented for the 2011 fishing year.

ON THE HORIZON

5-year EFH review. A 5-year review of EFH information for all the Council's FMPs has been completed, and will be presented to the Council in April 2010. The Council will decide whether to initiate FMP amendments to revise the FMPs based on new information.



Northern Bering Sea Research Plan. A research plan is currently under development by the Alaska Fisheries Science Center (AFSC), and a draft is scheduled for 2011. The AFSC recently held a community and subsistence workshop to get input from local stakeholders.

Review of closed areas. In 2011, the Council will review available research information regarding two of the GOA closed areas (Sanak and Albatross) to determine efficacy of continued closure, and will revisit the boundaries of the Nunivak-Etolin Strait-Kuskokwim Bay bottom trawl closure in the Bering Sea.

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Habitat Areas of Particular Concern

PROTECTING RARE AND VULNERABLE HABITAT

The 1996 amendments to the Magnuson-Stevens Act required fishery management plans to describe and identify essential fish habitat (EFH), minimize to the extent practicable adverse effects on EFH caused by fishing, and identify other actions to encourage the conservation and enhancement of EFH. EFH is defined as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." The EFH regulations also encourage, but do not require, the identification of habitat areas of particular concern (HAPCs) to provide greater focus to conservation and management efforts. The regulations state that specific types or areas of habitat within EFH should be identified as HAPC based on one or more of the following considerations:

- the importance of the ecological function provided by the habitat,
- the extent to which the habitat is sensitive to human-induced environmental degradation,
- whether, and to what extent, development activities are, or will be, stressing the habitat type, and
- the rarity of the habitat.

A PROCESS FOR DESIGNATING HAPC

The HAPC identification process for the North Pacific begins with a determination of HAPC priorities by the Council. A call for nominations is then issued, to focus on specific sites consistent with those priorities. HAPC nomination proposals may be solicited every 3 years or on a schedule established by the Council.

For the 2004 HAPC identification process, the Council designated two priorities: named seamounts in Alaska Federal waters, and coral areas with rockfish associations. The Council received 23 proposals from six different organizations. After an initial screening by staff, the proposals were reviewed by the Council's Plan Teams, and assessed for management, enforcement, and socioeconomic issues. Ultimately, the Council identified a range of alternatives, staff completed an analysis, and in January 2005, the Council adopted several new HAPCs.

Twenty sites in the Gulf of Alaska and Aleutian Islands, consisting of seamounts and high density coral areas, were identified as HAPCs. To protect these sites and eliminate environmental impacts due to fishing, the Council prohibited fishing in these areas by gear types that contact the bottom. These sites and measures became effective in June 2006.

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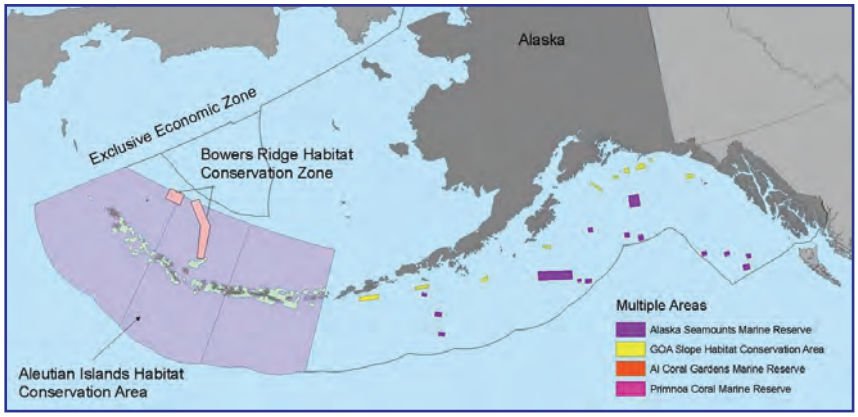
Witherell, D. and D. Woodby. 2005. Application of Marine protected Areas for Sustainable Production and Marine Biodiversity off Alaska. Marine Fisheries Review 67(1) 1-27. spo.nmfs.noaa.gov/mfr671/mfr6711.pdf

FMP References

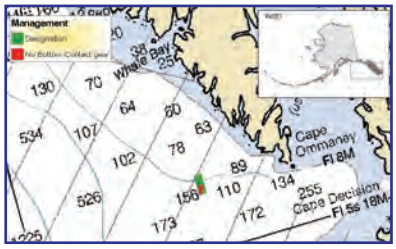
HAPC designation and protection: BSAI Groundfish Amendment 65, BSAI Groundfish Amendment 65, BSAI Crab Amendment 12, Scallop Amendment 7, Salmon Amendment 8; 71 FR 36694, effective date June 28, 2006.



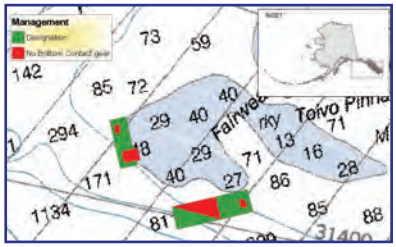
The Alaska Seamount Habitat Protection Area encompasses all 16 seamounts in Federal waters off Alaska, named on NOAA charts (Bowers, Brown, Chirkikof, Marchand, Dall, Denson, Derickson, Dickins, Giacomini, Kodiak, Odessey, Patton, Quinn, Sirius, Unimak, and Welker). Bottom-contact fishing is prohibited in all of these HAPCs, an area which totals 5,329 nm^2.

In Southeast Alaska, three sites with large aggregations ("thickets") of long-lived Primnoa coral are also identified as HAPCs. These sites, in the vicinity of Cape Ommaney and Fairweather grounds, total 67 nm^2. The Gulf of Alaska Coral Habitat Protection Area designates five zones within these sites where submersible observations have been made, totaling 13.5 nm^2. All bottom-contact gear (longlines, trawls, pots, dinglebar gear, etc.) is prohibited in this area.

In the Aleutian Islands region, the relatively unexplored Bowers Ridge was also identified as a HAPC. As a precautionary measure, the Council acted to prohibit mobile fishing gear that contacts the bottom within this 5,286 nm^2 area.



Gulf of Alaska Coral Habitat Protection Area – Cape Ommaney



Gulf of Alaska Coral Habitat Protection Area – Fairweather Grounds

RECENT ACTION

In June 2009, the Council considered whether to set HAPC priorities, and initiate a call for proposals for candidate HAPC sites. The Council chose to defer a decision on new HAPCs until the completion of the EFH 5-year review, scheduled for April 2010. The SSC has, however, recommended revised criteria that will be used to review any HAPC proposals that are submitted during a future HAPC process. The Council will adopt revised criteria prior to issuing a call for proposals.

There are some priorities or areas that are on the table to be considered by the Council in their next HAPC priority process. During the 2004 HAPC proposal cycle, 6 proposals did not meet the Council's designated priorities at that time, but the Council identified that they did not need to be resubmitted. HAPC priorities associated with these proposals would be: dense aggregations of soft corals, deepwater canyons, and pinnacles. Also, in December 2006, the SSC commented on the need for "further research on skate nursery areas to evaluate the spatial extent and uniqueness of these apparently critical habitat areas and on the importance of canyons". At that meeting, the Council decided that skate nurseries would be considered as a priority in the next HAPC proposal cycle, as recommended by the SSC.

ON THE HORIZON

In April 2010, the Council will consider whether to set HAPC priorities, and initiate a call for proposals for candidate sites to identify as HAPCs.

NOAA - Auke Bay Laboratories

Aleutian Islands Fishery Ecosystem Plan

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For More Information

NPFMC. 2007. Overview of the Aleutian Islands Fishery Ecosystem Plan. December 2007, on the Council's website.

FMP References

Aleutian Islands Fishery Ecosystem Plan. December 2007, on the Council's website.

APPLYING AN ECOSYSTEM APPROACH

The Council continues to adapt its management program to better accommodate ecosystem relationships and strive for ecological balance, as part of its overall ecosystem approach to fisheries management. Over the years, the Council has consistently adopted innovative management approaches that provide a multi-species, ecologically-aware perspective on fisheries.

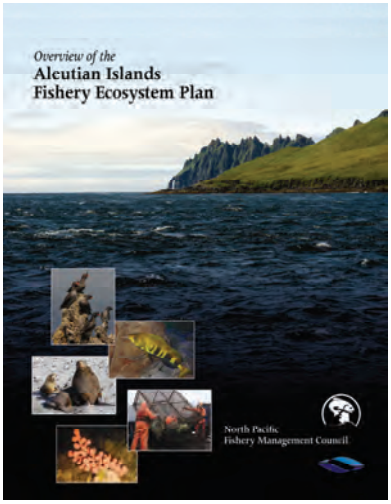
The Aleutian Islands area is an ideal candidate for exploring new ecosystem-based management tools. The Aleutian Island ecosystem is complex, and is the least predictable of the ecosystems in which the Council currently manages. The ecosystem is ecologically and historically unique, and many Council management actions have focused on the area's important resources, such as Steller sea lions, seabirds, and benthic habitats that support coral and sponges, pollock, and Pacific cod. Far less is understood about the ecological interactions in the Aleutians than in the eastern Bering Sea, yet the two areas are managed conjointly in the Federal fishery management plans.

FISHERY ECOSYSTEM PLAN CONCEPT FOR ALASKA

The North Pacific Fishery Management Council began the Aleutian Islands Fishery Ecosystem Plan (FEP) as a pilot project, to see whether FEPs are a useful tool for Alaska. It has developed into a policy and planning document that encompasses all fisheries in the Aleutian Islands ecosystem (groundfish, crab, halibut, scallop). The FEP is an ecosystem-based management tool and resource that can provide the Council with both an 'early warning system' for signs of ecosystem change, and an ecological context for fishery management decisions affecting the Aleutian Islands area. The FEP is intended to help the Council respond to changing conditions in a proactive rather than reactive mode.

Fishery Ecosystem Plan area: Alaskan Federal waters west of Samalga Pass.

The FEP integrates information from various sources to describe the main physical, biological, and socioeconomic relationships that comprise the Aleutian Islands ecosystem. Key interactions are identified (see reverse), and subjected to a qualitative risk assessment to provide general guidance to the Council on priority issues for management attention and further research and analysis. This process followed a classic risk assessment framework, but relied on the expert opinions and building of consensus among the inter-agency FEP team, which drafted the FEP. The FEP uses the risk assessment to provide a discussion of priorities and considerations for the Council, related to each of the key interactions.



OVERARCHING CONSIDERATIONS FOR THE COUNCIL

In December 2007, the Council published an overview of the FEP. The FEP highlights priorities for fishery management, which are listed below.

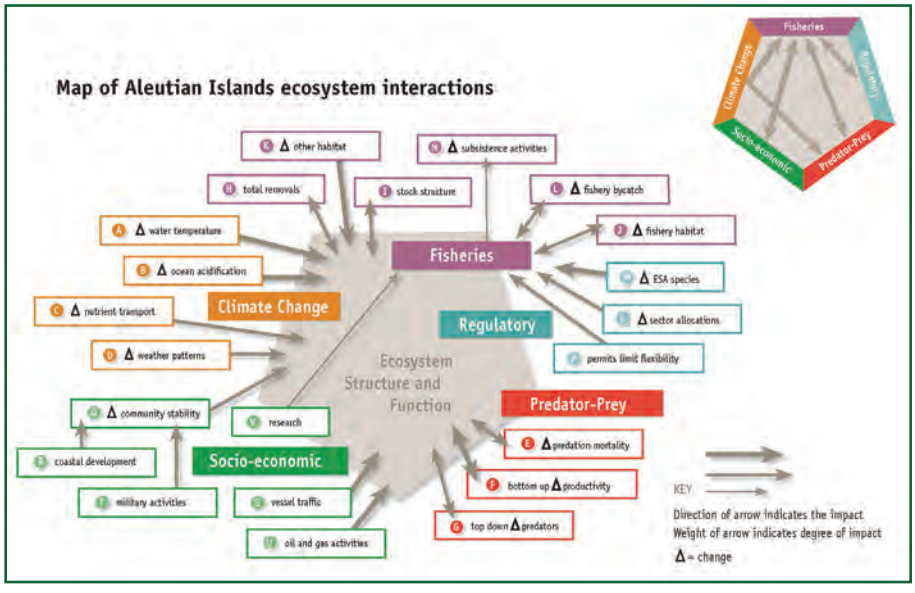
Recognize the Aleutian Islands ecosystem as a distinct entity. Fishery managers should consider the Aleutian Islands area described in the FEP as an ecosystem with unique characteristics. The Aleutians are frequently considered conjointly with the eastern Bering Sea, but are subject to different processes and properties. An ecosystem-wide monitoring plan is needed to improve understanding of the area.

Improve the process to account for ecosystem considerations in fishery management. No group in the Council process is currently assigned with the primary task of integrating ecosystem information and providing ecosystem-level advice. Ecosystem information is often qualitative or interpretative, and it is up to the Council, as policymaker, to determine how to balance risks associated with unquantifiable 'ecosystem considerations'.

Enhance dialogue with non-fishery agencies. It is important for the Council to interact with other agencies about activities affecting the ecosystem. The Council's participation in the Alaska Marine Ecosystem Forum is an important step in this regard. The Council may also choose to engage individually with other agencies on particular issues.

ON THE HORIZON

The FEP team and the Council's Ecosystem Committee have identified steps to improve the utility of the FEP in the Council process, by increasing awareness about the information that is contained in the FEP, and how it can be used to improve management actions. In April, the Council will approve Terms of Reference for the FEP Team, which will describe both the Team's and the FEP's purpose, and how they intersect with existing management.



The Team also intends to revise the FEP with new AI ecosystem information. The FEP is a living document, and the ecosystem interactions, indicator status, research priorities, and data gaps described therein were periodically intended to be updated. The Team intends to present new information to the BSAI groundfish and crab plan teams, and to the Council, along with an assessment of the current status of the AI ecosystem indicators.

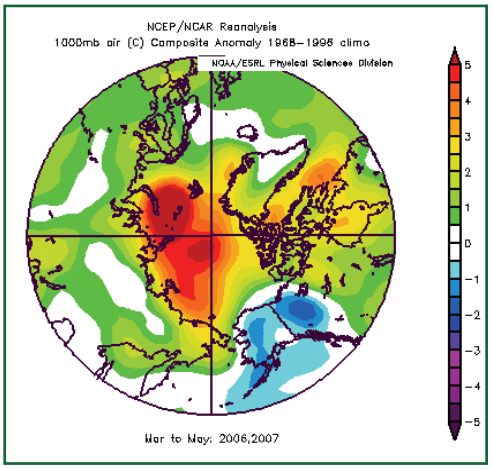
Susi Miller, USFWS

Arctic Fishery Management Plan

CHANGING CONDITIONS IN THE ALASKAN ARCTIC

The Arctic Ocean is a unique ecological environment that is experiencing change, partly due to climate warming and changes in seasonal ice cover. The potential long term consequences from these changes on the Arctic marine ecosystem are unknown, but effects on Arctic fauna (including polar bear, walrus, and seals) are already evident. Human use patterns are also changing, as vessels begin exploring new transportation routes through the Arctic.

To date, very little commercial fishing has occurred in this region, but changing conditions and migrating fish populations may create new opportunities. Except for salmon, the Council has never developed a fishery management plan (FMP) to extend over any but a small portion of the Alaskan Arctic, although the exclusive economic zone (Federal marine waters, from 3 – 200 nm off Alaska) of the Chukchi and Beaufort Seas is within its jurisdiction. Without a Federal FMP, the State of Alaska has authority to regulate fishing vessels registered with the State, but other domestic fishing vessels may be able to fish without regulation.



James Overland, NOAA

2006-07 average winter temperatures in the Arctic, compared to the average for 1968-1995, illustrate warming trends.

FISHERY MANAGEMENT AUTHORITY

In February, 2009, the Council recommended adoption of an Arctic FMP to establish Federal fishery management in the Alaskan Arctic. The FMP, which became effective in December 2009, is necessary to prevent commercial fisheries from developing in the Arctic without a management framework in place and adequate scientific information on fish stocks. The FMP closes the Arctic waters to commercial fishing, with the intent being that they will remain closed until adequate information and data are acquired upon which to make sound decisions about future fishery development and to understand the impacts of fishing on fish stocks and related components of the ecosystem. The FMP establishes a management framework for considering requests to develop future fisheries based upon the best available science.

The Arctic FMP manages all stocks of finfish and shellfish in federal waters, except Pacific salmon and Pacific halibut, which are managed under other authorities (the Council also amended the crab FMP to terminate the northern boundary of its geographical areas at Bering Strait). However, only three species have been identified as available in sufficient abundance to potentially allow for a commercial fishery. These are Arctic cod, saffron cod, and snow crab.

US Coast Guard

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NOAA's Arctic webpage, www.arctic.noaa.gov

Ocean climate information, NOAA's Pacific Marine Environmental Laboratory, oceans.pmel.noaa.gov

Report from International Arctic Fisheries Symposium, October 2009; www.nprb.org/iafs2009

Stram, D., and D. Evans. 2009. Fishery management response to climate change in the North Pacific. ICES J. of Marine Science 66, p. 1633-1639 on the Council's website.

FMP References

Fishery Management Plan for Fish Resources of the Arctic Management Area and Amendment 29 to the BSAI Crab FMP; 74 FR 56734, effective December 3, 2009.

National Marine Mammal Laboratory

OUTREACH AND INVOLVEMENT OF ARCTIC COMMUNITIES

Extensive opportunity for public comment and input to the development of the Arctic FMP was provided throughout the process. The Council initiated an outreach program to involve local communities, organizations, and individuals as the Arctic FMP and accompanying documents were prepared. The Council particularly sought involvement of Native peoples in the process, and consulted with Native groups, local governments, Arctic communities, and regional Native resource management entities from the North Slope, Northwest Alaska, and Norton Sound regions. The Council's intent was not to disrupt the subsistence lifestyle of Native peoples of the Alaskan Arctic, but to preserve small, local fisheries, be they commercial or subsistence/personal. The FMP does not affect fisheries for salmon, whitefish, and shellfish in Alaskan waters near the Arctic shore, nor does it affect Arctic subsistence fishing or hunting.

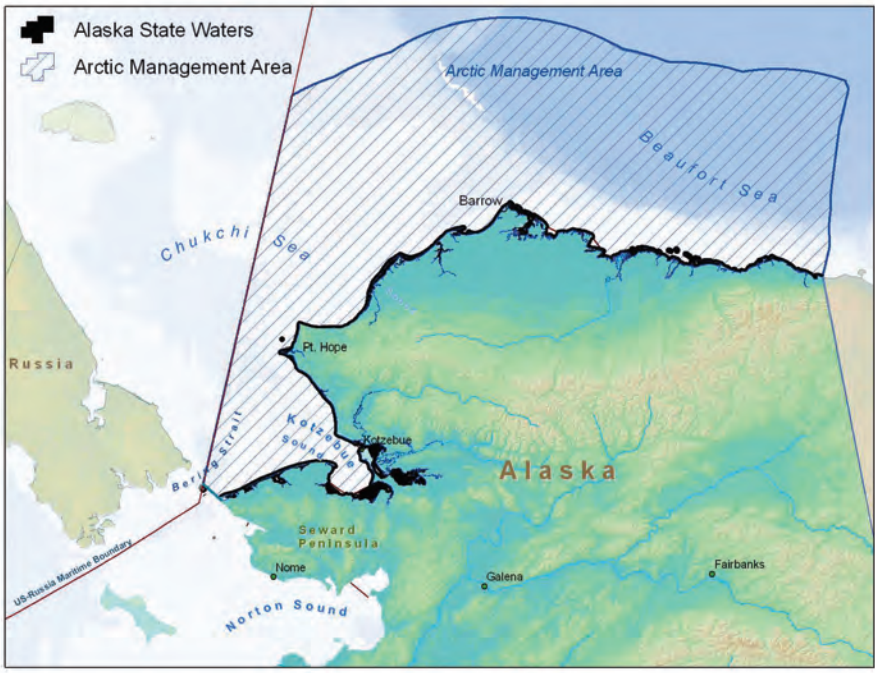
Susi Miller, USFWS

ARCTIC FMP MANAGEMENT AREA

The Arctic Management Area includes all Federal marine waters of the Chukchi and Beaufort Seas, three to 200 nautical miles offshore of the coast of Alaska, from north of Bering Strait, westward to the 1990 U.S.-Russia maritime boundary line, and eastward to the U.S.-Canada maritime boundary.

ON THE HORIZON

Many different entities are increasing their research efforts in Arctic marine waters, and efforts are underway to improve coordination and collaboration among these various governmental and academic efforts. The Alaska Marine Ecosystem Forum, of which the Council is a member, will be focusing on Arctic collaboration at its 2010 meetings



In 2008, a fish survey was completed in the Beaufort Sea using bottom trawls, acoustic transects, oceanographic instrument casts, and zooplankton sampling. The survey was conducted by the Alaska Fisheries Science Center in collaboration with scientists from the Universities of Washington and Alaska, and was funded by the Minerals Management Service. A similar survey is planned for the Chukchi Sea in 2010.


Lowell Fritz

Steller Sea Lion Protection Measures

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For More Information

National Research Council. 2003. The decline of the Steller sea lion in Alaskan waters: Untangling food webs and fishing nets. National Academy Press, Washington, D.C. 204p.

T. Loughlin and J. Tagart. 2006. Compendium of Steller sea lion related research, 2000-2006, on the Council's website.

FMP References

Steller sea lion protection measures: implemented initially by emergency rule and then by regulatory amendment; 68 FR 204, effective January 2, 2003.

REDUCING POTENTIAL FOR COMPETITION WITH FISHERIES

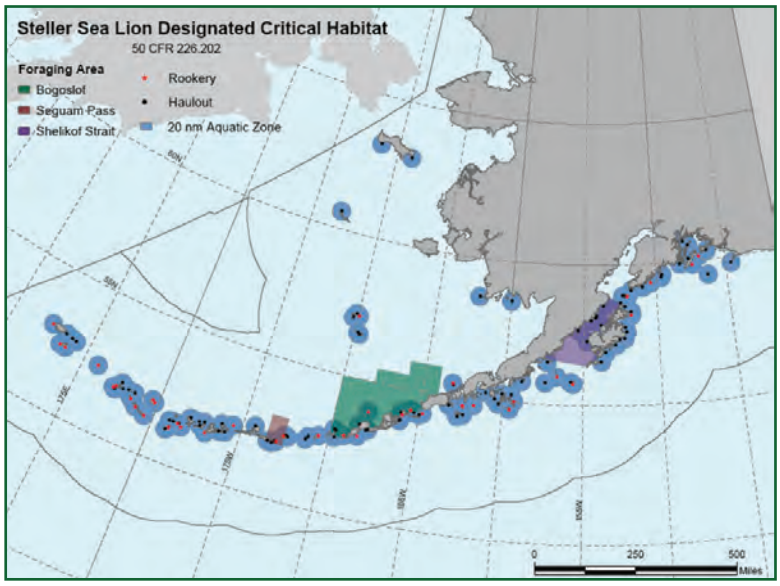
Because of a large population decline, Steller sea lions were listed as threatened under the Endangered Species Act (ESA) in 1990, and the western population of sea lions was listed as endangered in 1997. There does not appear to have been a single cause for the decline, and a number of factors may have been involved, including but not limited to intentional shooting, disease, ecosystem change, and competition with fisheries. With the initial ESA listing, fishery managers began to explore and implement actions to minimize potential impacts caused by fisheries in the region. Interactions of sea lions with fisheries may occur through competition, disturbance, and direct and incidental mortality. Because fish are prey for Steller sea lions, fishery regulations have focused on reducing potential effects of competition, and minimizing localized depletion of their prey. Studies have shown that major food items for Steller sea lions include pollock, Pacific cod, Atka mackerel, salmon, and octopus, as well as squid and capelin prior to 1978.

To reduce potential effects of fisheries on Steller sea lions, the Council and NOAA Fisheries have implemented many measures over the years. In October 2001, following a federal court order for NOAA and the Council to further justify the fishery management program's impacts to Steller sea lions, a comprehensive and stringent suite of fishery management measures was developed by the Council's Reasonable and Prudent Alternative Committee (now the Steller Sea Lion Mitigation Committee) to minimize potential competition for prey between fisheries and the endangered western stock of Steller sea lions.

Management measures to reduce potential impacts of fisheries on Steller sea lions, by year of first implementation

- No shooting of Steller sea lions (1990)
- Limits on incidental kills caused by fisheries (1990)
- 3 nm no-entry buffer zones around rookeries (1990)
- 10-20 nm no-trawl zones around rookeries (1991)
- 10-20 nm no-pollock-fishing zones around haulouts (1999)
- Seasonal dispersion of fisheries for pollock (1991) and Atka mackerel (1999)
- Spatial dispersion of fisheries for Atka mackerel (1994) and pollock (1999)
- Precautionary harvest limits for Steller sea lion prey (1994)
- No directed fishing for forage fish (1998)
- Fishery and gear specific measures (2002)

The protection measures were implemented in January 2002 and included a sweeping array of fishery and gear-specific closed areas around Steller sea lion rookeries and haulouts, limitations of catch from critical habitat areas, and seasonal and area apportionments of the total allowable catch limits for pollock, Pacific cod, and Atka mackerel. NOAA Fisheries Office of Protected Resources determined that fisheries prosecuted under these measures would not jeopardize Steller sea lions or adversely modify their critical habitat, and the federal court case ended.



STATUS REPORT

A substantial amount of research has been conducted on Steller sea lions since 2001. Although the contribution of fisheries to Steller sea lion decline and recovery is still uncertain, over $120 million in research has been applied to the problem and is shedding additional light on causes of the decline and impediments to recovery. Research has provided an enhanced understanding of sea lion abundance, behavior, diet preferences, pup production, foraging, and reactions to disturbance.

Monitoring studies have shown recent stability in Steller sea lion populations, and in some areas, slight increases. The western population increased approximately 3% per year between 2000 and 2004. This was the first recorded increase in the population since the 1970s. Based on recent counts, there are currently about 50,000 animals in the Alaska portion of the western population, and an additional 16,000 animals in Russia. The population may be increasing due to higher juvenile and adult survival, although some subareas are not showing increases. The eastern population is currently estimated to be greater than 50,000 animals, and has been increasing at 3% per year for 30 years.

Lowell Fritz

ON THE HORIZON

In 2005, the Council recommended that its Steller Sea Lion Mitigation Committee take proposals from the public and begin to develop recommendations for changes to Steller sea lion protection measures for the Alaskan groundfish fisheries. The Committee spent several years reviewing proposals and analyzing how they may affect Steller sea lions and their habitat, and potentially produce economic benefits.

NOAA Fisheries recently finalized a Steller Sea Lion Recovery Plan and is preparing a status quo Biological Opinion, which will evaluate the effects of the existing groundfish fisheries on sea lions. A draft of the Biological Opinion is due out by mid-2010. Depending on the conclusions of the draft Biological Opinion, the Council may initiate changes to current fishery management measures and engage its Steller Sea Lion Mitigation Committee in this process.

Lowell Fritz


Ian Jones

Seabird Avoidance Measures

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National Marine Fisheries Service webpage on seabird incidental take in fisheries, www.alaskafisheries.noaa.gov/protectedresources/seabirds.html

Washington Sea Grant Program webpage on collaborative research, www.wsg.washington.edu/mas/resources/seabird.html

FMP References

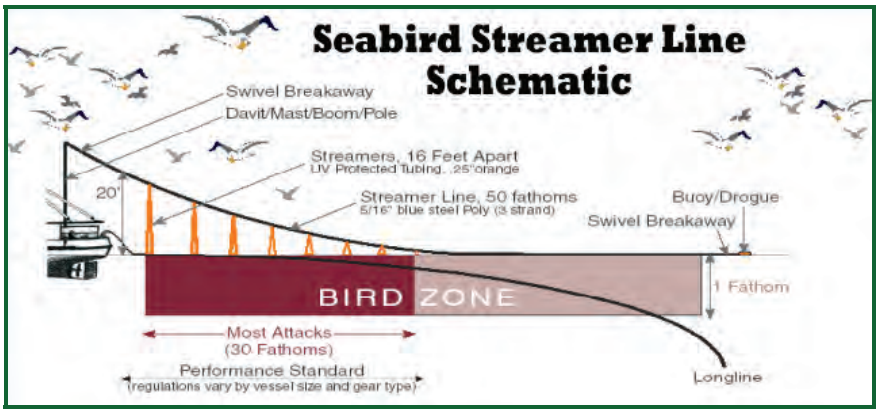
Revisions to seabird avoidance measures: regulatory amendment; 72 FR 71601, effective January 17, 2008.

Seabird avoidance measures for Alaska hook-and-line groundfish and halibut fisheries: regulatory amendment; 69 FR 1930, effective February 12, 2004.

SEABIRD INTERACTIONS – A CONSERVATION ISSUE

Fishing vessels in the North Pacific often encounter seabirds (e.g. albatrosses, fulmars, gulls, shearwaters) during the course of fishing. Many seabird species are attracted to fishing vessels in order to forage on bait, offal, discards, and other prey made available by fishing operations. The sight and sound of swarming birds can attract other birds from many miles around. These interactions can result in direct mortality for seabirds if they become entangled in fishing gear or strike the vessel or fishing gear while flying. Interactions with longline fisheries are of particular concern, as seabirds are attracted to sinking baited hooks and can become hooked and drowned.

The Alaska fishing industry and the Council have focused particular attention on conservation and protection of the short-tailed albatross, an endangered species listed under the U.S. Endangered Species Act. 'Takes' of four short-tailed albatrosses in longline groundfish fisheries, or two short-tails in the halibut fishery, within a two-year period would trigger re-initiation of a Section 7 consultation in these respective fisheries and consequently interrupt or even close Alaska's demersal longline fisheries. Takes of only two short-tails over five years could disrupt or close the Alaskan trawl fisheries.



Washington Sea Grant Program

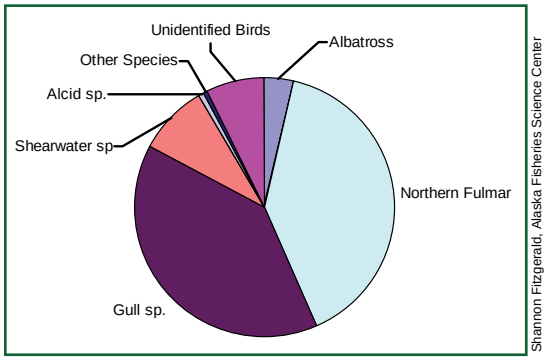
MEASURES TO REDUCE MORTALITY

In 1996, the Council established mandatory seabird avoidance measures for the longline fisheries, and approved more stringent requirements in 2001. Seabird deterrent devices such as buoy bags or streamer lines are required for most groundfish longline fishing vessels. The Council has encouraged fishing industry initiatives to conduct research on new seabird avoidance measures, including studies on the effectiveness of paired streamer lines and integrated weight ground lines, and the development of techniques for minimizing seabird strikes with trawl warps and sonar transducer cables.

These research efforts, which were largely prompted by voluntary action on the part of the longline sector of the industry, indicated that paired streamer lines were nearly 100 percent effective at eliminating the catch of albatrosses and other surface-feeding birds. The sablefish and Pacific cod longline fishing fleets adopted this new technology two years before it was required, resulting in an eight-fold decrease in seabird mortality.

Hiroshi Hasegawa

RECENT REGULATORY CHANGES



Shannon Fitzgerald, Alaska Fisheries Science Center

Species composition of the estimated seabird bycatch in Alaskan demersal longline fisheries, 2002-2006.

Since the implementation of the seabird avoidance measures, Washington and Alaska Sea Grant programs have continued to research seabird and fishery interactions. Based on Washington Sea Grant research projects investigating the occurrence of albatross and other seabird species in Alaskan inside waters, the Council approved new changes to seabird avoidance requirements. Implemented in January 2008, the Council's action specified that the use of seabird avoidance measures would not be required in Prince William Sound, Cook Inlet, and inside waters in Southeast Alaska except in outer Chatham Strait, Dixon Entrance, and outer Cross Sound. The Council action also identified performance standards for small vessels (those greater than 26 ft and less than or equal to 55 ft length overall) fishing in outside waters, and modified how seabird deterrent devices be used by small vessels.

Seabird bycatch reduction

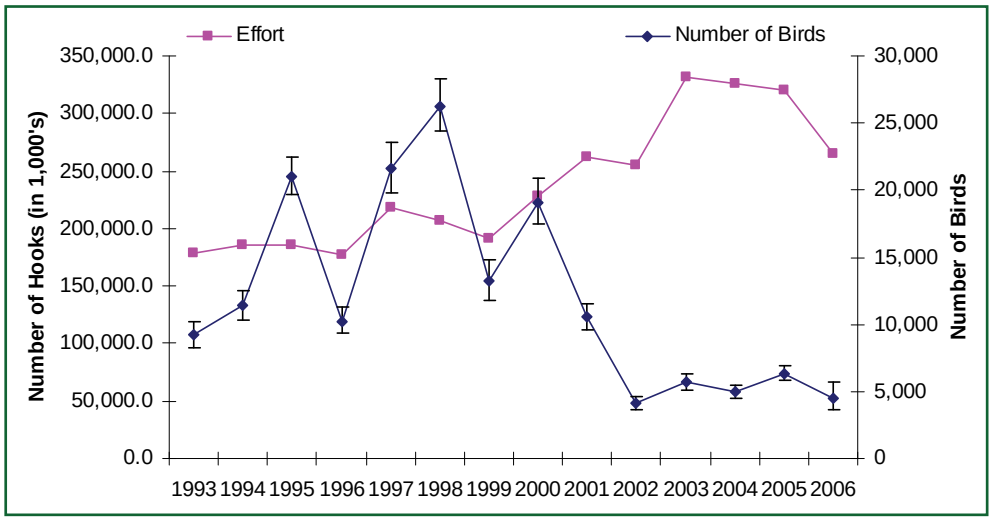
All seabirds, annual average:

1993-2000: 16,507
2002-2006: 5,137

Albatross, all species, annual average:

1993-2000: 1,051
2002-2006: 185

In another recent action, the Council relaxed seabird avoidance measures in International Pacific Halibut Commission (IPHC) Regulatory Area 4E (the northeastern Bering Sea). The main fishery in these waters is a small boat halibut fishery that attracts few seabirds and harvests small amounts of halibut at a slow rate. The use of buoy bags or other deterrence devices in this area may be dangerous in harsh weather. In consultation with the U.S. Fish and Wildlife Service, NOAA Fisheries staff conducted a statistical and spatial analysis of available short-tailed albatross data to help define areas within Area 4E where these albatross are not likely to occur, and thus where requirements for seabird avoidance measures might be relaxed. The Council's 2008 action eliminated seabird avoidance requirements for small vessels (<55 ft in length) in portions of IPHC Area 4E where short-tailed albatross and other seabird species of concern are not likely to occur.



Shannon Fitzgerald, Alaska Fisheries Science Center

Alaskan demersal longline groundfish effort (pink) and estimated seabird bycatch in the longline fisheries (blue), 1993-2006.


Nicole Kimball

Viable Communities

CONSIDERING COMMUNITY IMPACTS

The 1996 amendments to the Magnuson-Stevens Act added a national standard that requires fishery management plans and regulations to consider the impact of conservation and management measures on fishing communities. Specifically, National Standard 8 states that "Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities." Within the Federal fishery management process there is a growing emphasis on considering the social impacts of fishery management actions, specifically effects on fishing communities. This is of particular importance in the North Pacific, where fishing communities are generally far less diversified, have fewer economic opportunities, and are more dependent on commercial fishing than most U.S. fishing communities outside of Alaska.

COMMUNITY MEASURES AND PROGRAMS

Ongoing assessment of community impacts has led the Council to undertake several different approaches to either minimizing impacts of a particular management action on fishing communities or sustaining or increasing access to fishery resources by communities. A number of community provisions have been incorporated into larger programs, as well as specific programs crafted to either further develop communities' fishing economies or sustain existing access in the wake of new limited access regimes. Examples of these provisions and programs include:

- the Western Alaska Community Development Quota (CDQ) Program, which provides direct allocations of BSAI fisheries to six CDQ groups representing 65 western Alaska communities;
- the GOA community quota share purchase program, which allows 42 small GOA communities to purchase halibut and sablefish catcher vessel quota share;
- the community purchase provision in the BSAI crab rationalization program, which allows qualifying communities with crab processing history to purchase crab harvest shares;
- direct allocations to Adak of golden king crab and pollock in the Aleutian Islands, as mandated by Congress;
- halibut charter limited entry permits provided to 32 small GOA communities.
- Pacific cod fixed gear permits provided to 21 small communities in the western and central GOA (pending approval by the SOC).

EVOLVING PROCESS FOR SOCIOECONOMIC ANALYSIS

The Magnuson-Stevens Act requires that Councils must consider current and historical participation of fishing communities when establishing procedures for initial allocations under new limited access privilege programs. The Council must also consider the basic "cultural and social framework of the fishery," especially through the development of policies to promote the sustained participation of small owner-operated fishing vessels and fishing-dependent

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For More Information

Alaska's Fishing Communities conferences, Alaska Sea Grant, seagrant.uaf.edu/conferences/fish-com2/index.html

FMP References

J.A. Sepez, B. Tilt, C. Package, H. Lazrus, I. Vaccaro. 2005. Community Profiles for North Pacific Fisheries – Alaska. NMFS-AFSC-160, www.afsc.noaa.gov/Publications/AFSC-TM/NOAA-TM-AFSC-160/NOAA-TM-AFSC-160.pdf

Mark Fina

communities. In addition, the Act outlines eligibility requirements for communities to participate in limited access privilege programs, and generally strengthens the position of communities and provides a path for Councils to include them in these types of exclusive allocation programs.

Several recent efforts have facilitated improved socioeconomic analysis and community participation in the fishery management process. In December 2005, NMFS produced a document entitled "Community Profiles for North Pacific Fisheries – Alaska", which contains 136 short profiles of Alaska communities involved in North Pacific fisheries. This compilation provides baseline data on a comprehensive list of fishing communities in Alaska, and is intended to facilitate implementation of the federal laws that require consideration of communities, and improve available information to affected communities. This document will be updated following the 2010 U.S. Census. The Council has also teamed with the North Pacific Research Board to develop comprehensive community profiles for 8 fishery-dependent communities (Unalaska, Kodiak, King Cove, Akutan, Adak, St. Paul, St. George, and Sand Point).

In 2004, the Council identified a priority to improve participation and consultation with communities and Alaska Native entities. This effort resulted in the development of 1) a protocol or strategy for improving Alaska Native and community communication and participation, and 2) a method for systematic documentation of such participation in the development of management actions.

The Council has also been a co-sponsor of two community conferences, in 2005 and 2006. The conferences spurred from the general need to assess impacts of fishery management actions on fishing communities, and the need to provide a forum for coastal residents, fishermen and seafood processors, and federal, state, municipal, and tribal representatives to work together in support of Alaska's coastal fishing economy.

In 2008, the Council ramped up its efforts to increase Alaska Native and community outreach. In an effort to get the word out on the Actic FMP and Chinook salmon bycatch, staff and council members traveled to several communities in western and central Alaska to provide presentations and listen to concerns of those residents. Another regional outreach effort is planned for the upcoming chum salmon bycatch action in 2010-2011. Additionally, the Council formed a rural outreach committee to discuss ongoing outreach strategies and activities, resulting in new efforts to improve communication with rural communities. As a separate action, the Council adopted seven core principles on stakeholder involvement, to guide its overall communication policy.

Council's principles for outreach, communication, and stakeholder participation

- Use an open and clearly defined decision-making process.
- Make key information readily available and understandable.
- Actively conduct outreach and solicit stakeholder input.
- Involve stakeholders early and throughout the decision-making process.
- Foster responsive, interactive communication between stakeholders and decision makers.
- Use formal and informal participation measures.
- Include all stakeholder interests.

ON THE HORIZON

In February 2010, the Council received a report reviewing the community quota entity program under the halibut/sablefish IFQ program. Upon review of this paper and the IFQ proposals related to the CQE Program, the Council initiated a regulatory amendment to allow CQEs located in Area 3A to purchase Area 3A category D quota share. In addition, the Council initiated a discussion paper evaluating development of a CQE Program for non-CDQ communities located in Area 4B (i.e., Adak).


Herman Savikko

Alaska Marine Ecosystem Forum

NEED FOR INTERAGENCY COORDINATION

The U.S. Ocean Action Plan of 2004 identified that jurisdiction over human activities affecting the oceans is distributed among many different agencies, and consequently, more systematic cooperation on ocean-related governance is needed. Regional collaborations and partnerships are highlighted as an important way to enhance ocean leadership and coordination.

The North Pacific Fishery Management Council recognizes that fishery management decisions can be affected both positively and negatively by the actions of other entities, and vice versa. Alaska's state and federal waters form part of several large marine ecosystems, each with distinct natural processes and diverse human activities. Accordingly, in 2005, the Council, the State of Alaska, and NOAA's National Marine Fisheries Service approached other Federal and State agencies with jurisdiction over activities impacting marine waters, with a view to developing some mechanism for advancing regional collaboration. Through the course of the following year, a Memorandum of Understanding was agreed to by all entities.


Diana Evans

IMPROVING COMMUNICATION, SUPPORTING MUTUAL GOALS

The establishment of the Alaska Marine Ecosystem Forum (AMEF) brings together Alaska's Federal and State agencies as well as the North Pacific Fishery Management Council to address issues of shared responsibilities related to the marine ecosystems off Alaska's coast. The AMEF promotes the collective aim of Federal and State agencies and the North Pacific Fishery Management Council to achieve sustainable management and use of Alaska's marine ecosystems in the most effective and efficient manner, consistent with the missions of those agencies. Through coordinated and cooperative understanding, the AMEF seeks to ensure that the interests of the people, biota, and physical environment of Alaska's marine waters are well served.

FEDERAL MEMBERS:

North Pacific Fishery Management Council
NOAA / National Marine Fisheries Service
U.S. Fish and Wildlife Service
Minerals Management Service
National Park Service
Bureau of Land Management
Environmental Protection Agency
U.S. Forest Service
U.S. Coast Guard
U.S. Army Corps of Engineers
Department of Defense/Alaskan Command

STATE OF ALASKA MEMBERS:

Department of Environmental Conservation
Department of Fish and Game
Department of Natural Resources
Department of Commerce, Community and Economic Development

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For More Information

Meeting summaries are posted on the Council website.

U.S. Ocean Action Plan, ocean.ceq.gov/actionplan.pdf

Interagency Ocean Policy Task Force, www.whitehouse.gov/administration/eop/ceq/initiatives/oceans/

FMP References

Memorandum of Understanding for the Alaska Marine Ecosystem Forum, on the Council's website.

Missile Defense Agency

Nicole Kimball

The purpose of the AMEF is to provide a venue where participants may share information. The AMEF provides the following opportunities:

1. **Sharing Priorities:** Each agency may share its priorities for research, use, and management of resources, as appropriate. Increasing awareness and coordination among agencies and the public may lead to partnership opportunities and setting shared priorities.

2. **Sharing Data:** Provide an efficient forum for sharing information about human activities and natural processes affecting the specified marine ecosystem. The AMEF will discuss how synthesizing and sharing existing, unclassified, data and information can be accomplished and will identify sources of such information-sharing (websites; bibliographies of scientific research; contact information within agencies by issue; information on present, past, future activities for help with National Environmental Policy Act cumulative impact studies; present and future research plans and research priorities; and opportunities for partnership).

3. **Problem Solving:** Allow agencies to identify problems or to share lessons learned from previously solved problems.

4. **Joint Work:** Identify cooperative conservation opportunities that can be pursued at an agency-to-agency level under separate agreements.

5. **Forum Without Jurisdiction:** The AMEF will not have independent jurisdiction or authority and will not regulate any activity. No participating agency is required to obtain approval of other Alaska Marine Ecosystem Forum members before acting.

RECENT ACTION

The AMEF meets approximately twice a year. Each agency provides a briefing on issues of interest, and specific topics are addressed in more detail. The AMEF initially focused on the Aleutian Islands, but has since broadened its focus to other Alaskan areas, including the Arctic. Recent items of discussion have included the national Marine Protected Area framework, the Ocean Policy Task Force, and the Interim Framework on Coastal and Marine Spatial Planning.

Timeline

November 2005 - interagency meeting to gauge interest in establishing an ecosystem forum
2005 - 2006 – development of a suggested structure and function for a forum
September 2006 - Memorandum of Understanding signed at first official AMEF meeting
2007 - 2010 - AMEF meetings biannually


John Gauvin

SALMON AND POLLOCK

Salmon support large and critically important commercial, recreational, and subsistence fisheries throughout Alaska and elsewhere. Salmon management programs, including significant investments in hatchery capacity to supplement natural runs, occur in Russia, Korea, and Japan, as well as for North American stocks in Canada, Alaska, and the Pacific Northwest.

In addition, salmon are taken incidentally in offshore groundfish trawl fisheries, especially in the pollock pelagic trawl fishery. Nearly all salmon taken as bycatch are Chinook (*Oncorhynchus tshawytscha*) and chum salmon (*O. keta*). The origin of salmon taken as bycatch in the Bering Sea includes rivers in western, southcentral and southeast Alaska, Asia, British Columbia, Washington, and Oregon.

HISTORY OF BYCATCH CONTROL MEASURES

In the mid-1990s, the Council and NOAA Fisheries implemented regulations to control the bycatch of chum and Chinook salmon taken in the BSAI trawl fisheries. These regulations established closures in areas and at times when salmon bycatch had been highest, based on historical observer data. The BSAI Groundfish Fishery Management Plan (FMP) specifies prohibited species catch (PSC) limits for catch of non-Chinook and Chinook salmon by the directed pollock fishery. When these limits are reached, the FMP authorizes regulatory measures to close the specified areas to directed fishing for pollock.

For Chinook salmon, the Chinook Salmon Savings Areas were established under BSAI Amendment 21b and revised under BSAI Amendment 58. These areas close to pollock trawling if 29,000 Chinook salmon are taken. The timing of the closure depends upon when the limit was reached. Amendment 82 further modified the areas to establish a separate Aleutian Islands subarea Chinook PSC limit of 700 fish, the attainment of which by the Aleutian Islands pollock fishery closes the area that is located in the Aleutian Islands (Area 1).

For non-Chinook salmon bycatch, the Chum Salmon Savings Area was established in 1994, by emergency rule, and then formalized under Amendment 35 in 1995. This area is closed to all trawling from August 1 through August 31. Additionally, if 42,000 non-Chinook salmon are caught in the Catcher Vessel Operational Area during the period August 15 through October 14, the area closes again from September 15 to October 15.


Diana Stram

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Stram, D. L., and J. N. Ianelli. 2009. Eastern Bering Sea pollock trawl fisheries: variation in salmon bycatch over time and space. Pages 827-850 in C. C. Krueger and C. E. Zimmerman, editors. Pacific salmon: ecology and management in western Alaska's populations. American Fisheries Society, Symposium 70, Bethesda, Maryland; available on the Council's website.

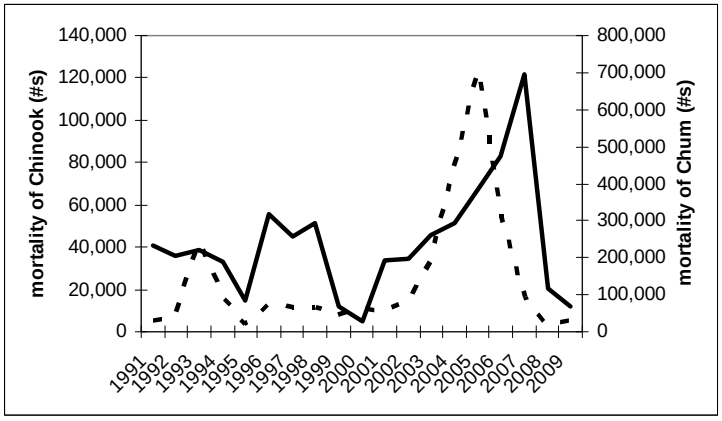
FMP References

75 FR 7228, February 18, 2010. Notice of availability of Amendment 91 to the FMP for Groundfish of the BSAI Management Area to manage Chinook salmon bycatch in the Bering Sea pollock fishery. Comment period through April 19, 2010

FLEXIBLE MANAGEMENT TOOLS HELP WITH SALMON AVOIDANCE

Although the salmon closure areas are still effective in regulation, since August of 2006 the pollock fleet has been exempted from the closures, first under an exempted fishing permit, and then under Amendment 84. In 2004, information from the fishing fleet indicated that bycatch may have been exacerbated by the current regulatory closure regulations, as much higher salmon bycatch rates were reportedly encountered outside of the closure areas during closure periods. The Council considered other means to control salmon bycatch and allowed pollock cooperatives and community development quota groups participating in a binding inter-cooperative agreement to utilize a rolling hot spot closure system to adaptively close small areas with high salmon bycatch rates. Participants in the agreement are exempted from compliance with the regulatory savings area closures. Vessels fishing in trawl cod or flatfish target fisheries (who have very little salmon bycatch in their fisheries) are also exempt from the closures.

Bycatch of Chinook salmon (solid line) and other salmon (dashed line) in groundfish fisheries, 1991-2009.



The pollock industry is also involved with developing a salmon excluder device for trawl gear, which allows salmon to escape from the trawl net underwater, while retaining pollock. The success of such devices relies on the different swimming behaviors of pollock and salmon. Through experimental fishery permits authorized by the Council and NOAA Fisheries, various iterations have been tested, and their use by pollock skippers is increasing.

RECENT ACTIONS

In April 2009, the Council adopted Amendment 91, which replaced the exemption conferred under Amendment 84 with specific, hard caps for BSAI Chinook salmon bycatch. Under this amendment, the fleet as a whole can fish under a hard cap of 47,591 fish, or participate in a NMFS-approved incentive program and fish under a higher cap level of 60,000 fish. These cap limits are allocated by season and among sectors. Once a seasonal cap for a sector is reached, pollock fishing in the Bering Sea is closed for the remainder of the season for that sector. Vessels that do not choose to fish under an incentive plan agreement (IPA) would be limited to a proportion of a lower cap of 28,496 fish.

John Gauvin

ON THE HORIZON

The Council is currently evaluating ways to better control bycatch of chum salmon in the BSAI, including cap threshold limits, sector specific allocations, and area closures. The Council will finalize alternatives for analysis at the June 2010 meeting.

The Council is also evaluating Chinook salmon bycatch in GOA groundfish trawl fisheries. Chinook salmon are taken regularly from the start of the trawl fisheries on January 20th through early April, and also in high quantities during June/July and September/October in the pollock fishery. The Council will be reviewing a discussion paper in April 2010, and determine if further action may be needed.

NOAA Fisheries

CRAB BYCATCH

Bycatch of crab occurs in the directed crab pot fisheries as well as groundfish and scallop fisheries. In the crab fisheries, crab bycatch includes females of target species, sublegal (small) males of target species, and non-target crab. In all other fisheries, crabs are a prohibited species, and must be discarded, so every crab caught incidentally is considered bycatch. Crabs caught as bycatch in trawl fisheries are thought to have a high mortality rate (estimated at 80%); in the scallop dredge and groundfish fixed gear fisheries, mortality is considered to be much lower (estimated at 40% and 20% respectively).

BSAI BYCATCH CONTROL MEASURES

Bycatch control measures have been established in the Bering Sea and Aleutian Islands groundfish trawl fisheries for red king crab (*Paralithodes camtschaticus*), Tanner crab *(Chionoecetes bairdi*), and snow crab (*C. opilio*). There are two kinds of measures: area closures and prohibited species catch (PSC) limits.

BSAI Area closures

The *Red King Crab Savings Area* is closed year-round to non-pelagic trawling. Implemented under Amendment 37 to the BSAI FMP in 1996, the intent was to increase protection of adult red king crab and their habitat. A small subarea (south of 56°10′) is opened to trawling under a specific PSC limit, during years of high red king crab years biomass, to allow access to productive rock sole fishing.

The *Nearshore Bristol Bay Closure*, east of 162° W, is also closed to all trawling, with the exception of a small area that remains open during April 1 to June 15 each year. Implemented under Amendment 37 in 1996, this closure protects juvenile red king crab and critical rearing habitat.

The *Crab and Halibut Protection Zone* has, for practical purposes, largely been superseded by the Nearshore Bristol Bay Closure. A small closure area extends west from March 15 to June 15.

The *Pribilof Islands Habitat Conservation Area* was established under amendment 21a to the BSAI FMP in 1995. All trawling is prohibited from the area to protect high concentrations of blue king crab and hair crab stocks, as well as reduce the bycatch of juvenile halibut and crab and mitigate any unobserved mortality or habitat modification that occurred due to trawling.

BSAI PSC limits

PSC limits have been established for red king crab, Tanner crab, and snow crab. The limits accrue for catch in a defined area, and fluctuate based on annual estimates of crab abundance. PSC limits are apportioned among fisheries in anticipation of their bycatch needs for the year. Attainment of PSC limits triggers a defined area closure for the relevant fishery.

Species	*Area*	*PSC limit for 2009*	*Bycatch in 2009*	
			number of crab	% of limit
RKC	Zone 1	197,000	66,315	34%
Tanner	Zone 1	980,000	191,392	20%
	Zone 2	2,970,000	287,116	10%
Snow	COBLZ	4,350,000	435,666	10%

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Stock Assessment and Fishery Evaluation Report for the King and Tanner Crab Fisheries, 2009, available on the Council's website.

FMP References

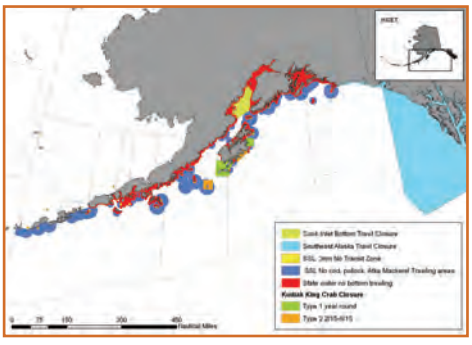
Red king crab protection measures: BSAI Groundfish Amendment 37; 61 FR 65985, effective January 1, 1997.

Pribilof Islands Habitat Conservation Area: BSAI Groundfish Amendment 21a; 60 FR 4110, effective January 20, 1995.

Mark Fina

NOAA Fisheries

Existing closures for the trawl fishery and for crab protection, in the Gulf of Alaska.



GOA BYCATCH CONTROL MEASURES

Bycatch of crabs is relatively low in GOA fisheries compared to the BSAI. The average number of red king crabs taken incidentally in all GOA fisheries for 2003-2007 was 200 crabs. The highest bycatch of *C. bairdi* Tanner crab occurred primarily in the Pacific cod and flatfish trawl fisheries and in the pot fishery for Pacific cod. Trawl fishery bycatch has fluctuated through time, reaching a high of 306,767 crabs in 2006 to a low of 29,947 crabs in 1999. The average percent contribution from 2003-2007 by gear type was 60% from trawl fisheries and 39% from pot fisheries.

PSC limits for crab species in GOA groundfish fisheries have not been established, due in part to the precision (and extrapolation) of observer data estimates. Observer coverage is lower in many GOA target fisheries given the prevalence of smaller vessels in the GOA fishing fleet, and thus estimates of crab bycatch in GOA fisheries are less precise than in Bering Sea fisheries.

Area closures for GOA groundfish trawl and scallop fisheries.

The *Kodiak red king crab closures, Type 1 and Type II* were established in 1993 because of the poor condition of the king crab resource off Kodiak. Type I areas have very high king crab concentrations and are closed all year to all trawling except with pelagic gear. Type II areas are only closed to non-pelagic gear from February 15 through June 15, during the molting period, as trawl bycatch and mortality rates are highest during the spring months when king crab migrate inshore for reproduction.

Year-round *scallop closures* to scallop dredging, dating from 1995, were intended to reduce high bycatch of crab and avoid and protect biologically critical areas such as nursery areas for groundfish and shellfish.

A year-round *Southeast Alaska no trawl closure*, which prohibits trawl fishing east of 140° W. was implemented in 1998.

In 2000 the State of Alaska implemented a *State water no commercial bottom trawling closure* to protect nearshore habitats and species in State waters (0-3 nm).

The *Cook Inlet bottom trawl closure*, implemented in 2001, prohibits non-pelagic trawling in Cook Inlet to control crab bycatch mortality and protect crab habitat in an area with depressed king and Tanner crab stocks.

ON THE HORIZON

In April 2010, the Council will make an initial review of an analysis to establish measures to control *C. bairdi* Tanner crab bycatch in the GOA groundfish fisheries. Alternatives include seasonal or year-round closure areas to vessels using specified gear types, and 100% observer coverage requirements. The proposed closure areas are directly to the east and northeast of Kodiak Island in the central GOA. In late 2010, the Council will also discuss the possibility of establishing bycatch limits for all federally managed crab stocks in the BSAI, as bycatch removals count towards the OFLs.

International Pacific Halibut Commission

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IPHC halibut bycatch workshop 2009, http://www.iphc.washington.edu/halcom/meetings/workshops.htm#bycatch

FMP References

IFQ Program: BSAI / GOA Groundfish FMP Amendments 15/20; 58 FR 59375, implemented December 9, 2003.

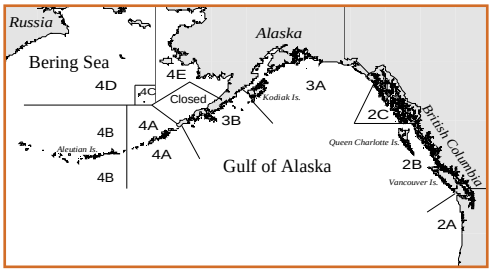
BSAI pollock bottom trawl prohibition: BSAI Groundfish FMP Amendment 57; 65 FR 31105, effective June 15, 2000.

Head and gut cooperatives: BSAI Groundfish FMP Amendment 80; 72 FR 52668, effective October 15, 2007.

HALIBUT TAKEN INCIDENTAL TO GROUNDFISH FISHERIES

The Pacific halibut longline fishery was one of the first fully domestic fisheries to become established off Alaska. As the groundfish fisheries developed, regulations were implemented to limit bycatch of halibut, so as to minimize impacts on the domestic halibut fisheries. Interception of juvenile halibut (~30 cm and greater) often occurs in trawl fisheries targeting other groundfish species (such as rock sole, pollock, yellowfin sole, and Pacific cod). Incidental catch of halibut also occurs in groundfish hook and line and pot fisheries. Regulations require that all halibut caught incidentally must be discarded, regardless of whether the fish is living or dead.

Pacific halibut fisheries in Alaska are managed cooperatively by the International Pacific Halibut Commission (IPHC), National Marine Fisheries Service (NMFS), the North Pacific Fishery Management Council, and the Alaska Department of Fish and Game, under authority granted by a treaty between the United States and Canada. The IPHC accounts for all halibut removals, including bycatch, in an annual coast wide stock assessment to determine an allowable catch limit for the directed halibut fishery in each of its regulatory areas. Halibut removals totaled 97 million lb (net weight) in 2007, of which the commercial catch was 73 million lb. Estimates of bycatch mortality of halibut in Alaska totaled 10.5 million lb in 2007, which is about 6 percent lower than 2006 and the lowest seen since 1987. Catch and discard mortality data are collected by observers who monitor the groundfish fleet.



IPHC Regulatory Areas for halibut.

COUNCIL HISTORY OF BYCATCH MEASURES

Halibut bycatch is controlled in the groundfish fisheries using prohibited species catch (PSC) limits, applied to specific target fisheries. Unlike other PSC limits, which allocate total allowable bycatch, halibut PSC limits are for dead fish only; halibut returned live to the sea do not accrue toward the PSC limit. Most halibut taken as bycatch are juveniles, so the loss is viewed not just as immediate tonnage, but also as fish that would have grown larger and recruited into the directed halibut fisheries.

The halibut PSC limits in 2010 total 2,300 mt (2,000 mt trawl; 300 mt fixed gear) in the GOA and 4,526 mt (3,626 trawl; 900 mt fixed gear) in the BSAI. PSC limits are apportioned by target fishery, gear type, and season. Essentially, these bycatch quotas direct fisheries, by area or time, to regions where the highest volume or highest value target species may be harvested with minimal halibut bycatch. When any fishery exceeds its seasonal limit, directed fishing for that species must stop, and the species may not be retained incidentally in other directed fisheries. All other users and gear remain unaffected. In both the BSAI and GOA, halibut

PSC limits often prevent the annual quota of many groundfish species (particularly flatfish) from being harvested.

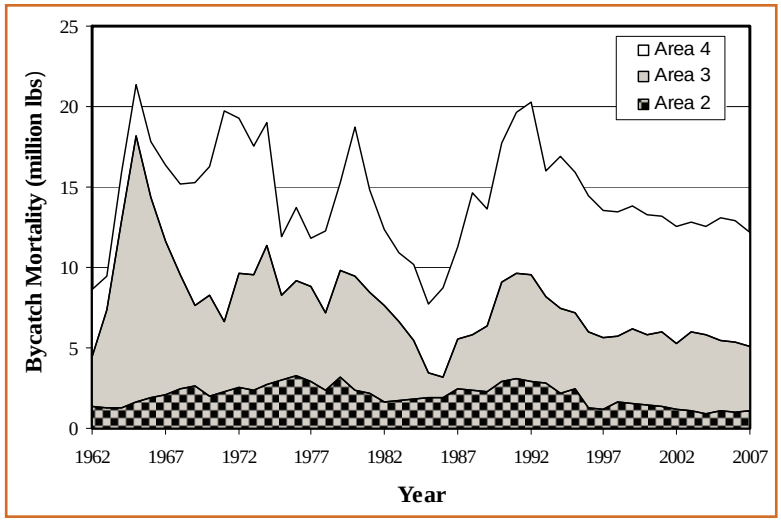
The Council has implemented several management measures to reduce halibut bycatch in groundfish fisheries. A major reduction occurred in 1995 with implementation of the individual fishing quota (IFQ) program (BSAI Amendment 15, GOA Amendment 20) for fixed gear sablefish and halibut fisheries. Halibut taken as bycatch in the sablefish IFQ fishery and other fixed gear fisheries can be retained using halibut IFQs, which resulted in an immediate reduction in annual PSC limits for the GOA hook-and-line fisheries from 1.2 million to 500,000 lb (750 to 300 mt). The Bering Sea trawl halibut PSC limit was reduced by 165,000 lb (100 mt) in 1999 when the Council adopted a requirement that only pelagic trawls can be used in the BSAI pollock fishery. Most recently, Amendment 80 will reduce the trawl halibut PSC limit by 83,000 lb (50 mt) per year over 4 years.

Andrea Hitschfeld, Groundfish Observer Program

Other measures that have reduced halibut bycatch include seasonal and area allocations of groundfish quotas for selected target species, seasonal and year-round area closures, gear restrictions, careful release requirements, public reporting of individual bycatch rates, and gear modifications. Examples of the latter include biodegradable panels and halibut excluder devices that are required on all groundfish pots.

Amendment 50 to the BSAI Groundfish Fishery Management Plan implemented a halibut donation program in July, 1998. SeaShare, a NMFS-authorized distributor, acquires unintentionally-landed halibut bycatch (generally from trawl catcher vessels delivering to shoreside processors) in Dutch Harbor, Alaska, for donation to hunger relief programs. In 2007, halibut donations from shore-based catcher vessel trawlers that delivered to onshore processors UniSea, Inc. and Alyeska Seafoods totaled 35,000 lb. Since 1998, over 230,000 lb of halibut has been donated for hunger relief.

Bycatch mortality in halibut regulatory areas, 1962-2007. Area totals are stacked on graph.



International Pacific Halibut Commission

ON THE HORIZON

The Council directed staff to prepare two discussion papers on halibut bycatch PSC limits in the GOA and BSAI. These discussion papers are intended to inform subsequent actions by the Council to identify problems in the groundfish fisheries in the contexts of PSC limits and whether to pursue an analysis to adjust the PSC limits. These papers are scheduled to be reviewed by the Council this year, with potential FMP amendments to follow.


Steve Barbeaux

Groundfish Bycatch

MANAGEMENT OF MULTISPECIES FISHERIES IS COMPLEX

Bycatch is defined in the Magnuson-Stevens Fishery Conservation and Management Act as fish that are harvested in a fishery but which are not sold or kept for personal use. This includes the portion of the catch that is discarded back into the sea and unobserved mortality due to a direct encounter with fishing gear that does not result in the capture of that species by a fisherman. Discards include species that must be returned to the sea by law (regulatory discards), and fish that are discarded at the discretion of the fisherman because they are not economically worthwhile to keep (economic discards).

Economic discards include incidentally caught fish that were not targeted nor have commercial value; targeted fish that are of the wrong size (e.g., too small) or of an undesirable sex (e.g., males, when roe-bearing fish are desirable); targeted fish that are of low quality.

Regulatory discards are required when it is prohibited to retain a species in the fishery. This may be a comprehensive prohibition (e.g., salmon are prohibited species in the groundfish fishery), or may occur when, for example, the total allowable catch (TAC) for a target species is reached or approached, and that species may no longer be retained incidentally in other directed fisheries, or may only be kept up to certain limits (maximum retainable amounts).

BYCATCH CONTROLS – COUNCIL HISTORY

The Council has a long history of developing regulations that prohibit fishermen from fishing in ways that result in high levels of bycatch. For example, regulations can prohibit fishing in specific times or areas, can require the use of specific gear or gear modifications, and can restrict the use of catch or the level of bycatch. While reduction in waste is desirable, bycatch restrictions place greater economic burdens on the groundfish industry either by limiting fishing or reducing fishing efficiency. Some examples of measures implemented to reduce bycatch are:

- time and area closures to avoid high bycatch
- prohibited species catch limits and area closures
- gear modifications (biodegradable panels on pots to permit juvenile fish to escape; minimum mesh size requirements for trawl codends)
- legal gear (seines and gillnets have been prohibited since 1993)
- legal fishing practices (no roe-stripping of pollock, no bottom trawl gear in BSAI pollock fishery)
- rationalization programs (reducing the race for fish increases selectivity and efficiency)

EFFECTIVE MONITORING

A comprehensive accounting of bycatch in the groundfish fisheries is achieved through the extensive monitoring and reporting program. Observers onboard vessels and at shoreside processors provide estimates of total catch and species

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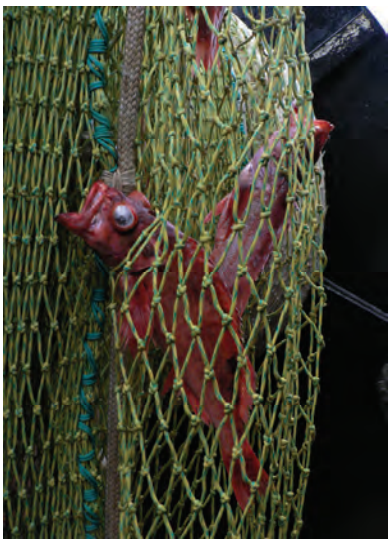
Alaska Groundfish Fisheries PSEIS Appendix F-5, Bycatch and Incidental Catch. 2004.
www.alaskafisheries.noaa.gov/sustainablefisheries/seis/final062004/Appen/App_F/app_f5.pdf

FMP References

Groundfish retention standard: BSAI Groundfish Amendment 79; 71 FR 17362, effective January 20, 2008.

Sector allocation and cooperatives: BSAI Groundfish Amendment 80; 72 FR 52668, effective October 15, 2007.



Mark Fina

composition, which allows for inseason management of the fishery. In addition, all permitted catcher vessels equal to or greater than 60 ft in overall length must maintain a daily fishing logbook regarding fishing activity and location. Catcher processors, motherships, shoreside processors and purchasing stations must maintain daily cumulative production logbooks that record information on fishing activity, haul receipt, production, and discards. Information on groundfish harvest, discard, receipt, and production are reported to NOAA Fisheries.

IMPROVED RETENTION AND IMPROVED UTILIZATION PROGRAM

Responding to what was considered unacceptably high levels of bycatch, the Council adopted an improved retention/improved utilization (IR/IU) program in 1998. The IR/IU program required 100 percent retention of pollock and cod in the BSAI and GOA, regardless of how or where they were caught (BSAI and GOA Amendments 49). No discarding of whole fish of these species is allowed, either prior to or subsequent to that species being brought on board the vessel, except as permitted in the regulations.

The IR/IU measure dramatically reduced the discards of pollock and cod in the groundfish fishery. In 1997, before the program began, about 260,000 mt of groundfish were discarded in the BSAI groundfish fishery, which was equivalent to about 14% of the total catch of managed groundfish species. Walleye pollock, Pacific cod, and flatfish comprised approximately 87 percent of this total. In 2007, about 100,000 mt of groundfish was discarded in the BSAI groundfish fisheries, representing about 5% of total catch of managed species.

David Fraser

RECENT ACTION

An overall minimum groundfish retention standard became effective in January 2008, under Amendment 79 to the BSAI Groundfish Fishery Management Plan. In the first year, 65% of all target groundfish that is caught by the head-and-gut sector in the Bering Sea and Aleutian Islands must be retained, increasing over four years to 85%. Amendment 80 authorized fishery cooperatives for the head-and-gut sector, which provides this sector with the operational tools to adhere to the increased retention standards. These measures are expected to further reduce the overall discards of groundfish in the North Pacific fisheries.

APICDA

Halibut and Sablefish IFQ Program

SHORT AND DANGEROUS SEASONS

By 1990, the halibut and sablefish longline fisheries were exhibiting significant problems created by open access derby-style fisheries. With the constant increase of new entrants into the fishery, the fishing seasons had been reduced to several short seasons each year, with halibut seasons lasting only a day or two in some areas. The short seasons created a number of problems, including allocation conflicts, gear conflicts, deadloss from lost gear, increased bycatch and discard mortality, excess harvesting capacity, decrease in product wholesomeness, safety concerns, and economic instability in the fisheries and fishing communities.

A SHARE-BASED PROGRAM

The Pacific halibut and sablefish fixed gear fisheries have been managed under the individual fishing quota (IFQ) program since 1995. The program essentially assigns the privilege of harvesting a percentage of the sablefish and halibut quota to specific individuals with a history of harvest in the fisheries. The 'rights' given to each person are proportional to their fixed gear halibut and sablefish landings during the qualifying period and are represented as quota shares (QS). Under this program, only persons holding quota shares are allowed to make fixed gear landings of halibut and sablefish in the regulatory areas identified. There are several key provisions of the program: the process for initial allocation of QS; assignment of shares to vessel categories; share transfer provisions; use and ownership provisions; QS blocks to further guard against excessive consolidation; the annual process for allocating QS; and the establishment of Community Development Quotas (CDQ).

To qualify for an initial allocation of quota share, a person must have made legal landings of halibut or sablefish harvested with fixed gear during 1988-1990. Generally, if a vessel owner or lessee qualified, his/her initial quota share was based on their highest total landing of halibut for any 5 years of the 7-year base period 1984-1990. For sablefish, the initial quota share was based on the highest total landing of sablefish for any 5 years of the 6-year base period 1985-1990. Each person eligible to receive quota share had it assigned to one of four vessel categories: "A"-freezer vessels of any length; "B"- catcher vessels greater than 60'; "C"- catcher vessels less than or equal to 60' for sablefish, or between 35'-60' for halibut; "D"- catcher vessels less than or equal to 35' for halibut. Initial quota share was assigned to the vessel category based on the vessel in which a person's most recent fixed gear landings of groundfish or halibut were caught. Restrictions on transfer and ownership were designed to maintain the owner/operator characteristics of the fleet, and to prevent consolidation of QS in the hands of a few participants.

POSITIVE RESULTS

The fixed gear halibut and sablefish IFQ program is considered a successful market-based management system that addressed overcapitalization and other issues. Some consolidation has occurred as expected, with the number of QS holders decreasing substantially in the first few years of the program and then stabilizing. Seasons were lengthened, with the halibut fishing season converted from several 24-hour period openers each year to an eight-month season from March 8 to November 15. Bycatch has been greatly reduced. To the extent

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Pautzke, C., and C. Oliver. 1997. Development of the individual fishing quota program for sablefish and halibut longline fisheries off Alaska, available on the Council's website.

FMP References

IFQ Program: BSAI Groundfish Amendment 15, GOA Groundfish Amendment 20; 58 FR 59375, implemented December 9, 1993.


PVOA


APICDA


Diana Evans

sablefish fishermen have halibut IFQ, this halibut is now retained and counted against the target quotas, as opposed to being caught as bycatch and discarded by regulation. The fisheries are also safer; instead of having to fish intensely under any weather conditions, fishermen can choose their fishing weather considering the seasons, grounds, and size and seaworthiness of their vessel. IFQs have reduced gear conflicts and fishing mortality due to lost gear within the sablefish and halibut fisheries, by reducing the competition for grounds over a short time. Product quality and price has also increased under the IFQ program, as fishermen and processors have more time to cater to the fresh fish market. Ex-vessel prices are at record highs.

REFINEMENTS TO THE PROGRAM

Since initial implementation, the Council has made numerous amendments to the halibut and sablefish IFQ program to relax the initial restrictions or respond to other management issues, including:

- a one-time trade of QS/IFQ between parties in different regulatory areas;
- a Catch Sharing Plan for the Area 4 subareas in the BSAI;
- allowing vessels to fish IFQs in multiple areas without offloading, so long as there is an observer onboard;
- processing of non-IFQ species on a vessel with B, C, or D shares onboard;
- catcher vessel QS to be used on vessels of the same size class or smaller;
- an increase in the sweep-up levels of halibut and sablefish QS blocks to 3,000 lbs for halibut and 5,000 lbs for sablefish;
- allow 2% deductions for ice and slime for halibut and sablefish landings, to standardize accounting of harvests;
- the use of pot longlines in the Bering Sea for sablefish;
- emergency transfer of IFQ to a surviving spouse, with leasing provisions;
- a 20% minimum interest in vessels for QS holders wishing to hire skippers;
- an increase the BSAI halibut QS use cap to 1.5%, from the existing limit of 0.5% of the total amount of halibut QS for regulatory areas 4A, 4B, 4C, 4D, and 4E, combined;
- 42 Gulf of Alaska coastal communities to be eligible to hold commercial catcher vessel QS in Areas 2C, 3A, and 3B, for lease to community residents;
- use of pot longline gear in the Bering Sea sablefish fisheries during June;
- temporary transfer of IFQs held by mobilized militia who are not otherwise authorized to hire a skipper;
- withdraw halibut and sablefish QS from initial recipients who have never fished any of those shares across all regulatory areas;
- a 20% minimum vessel ownership for 12 months before using a hired skipper.

ON THE HORIZON

There are several other changes forthcoming to the program. The Council will consider restricting the use of hired skippers by initial QS recipients on future QS transfers in late 2010. The Council has asked for additional background information on four other IFQ proposals in 2011, including: allowing retention of Area 4A halibut incidentally caught while targeting sablefish; allowing the use of pots in the GOA sablefish, assessing the issue of unharvested halibut IFQ in Area 4, and remove the block program for sablefish A category QS and increasing the use cap for sablefish A category QS.


Diana Evans

American Fisheries Act Pollock Cooperatives

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NPFMC. 2002. Report to the U.S. Congress and the Secretary of Commerce: Impacts of the American Fisheries Act. 308 p.

Oliver, C. 1999. Implementing the American Fisheries Act of 1998: Current and Future Actions by the National Fishery Law Symposium, available on the Council's website.

FMP References

AFA implementation: BSAI Groundfish FMP Amendment 61, GOA Groundfish FMP Amendment 61, BSAI Crab FMP Amendment 13, Scallop FMP Amendment 8; 67 FR 79692, effective December 30, 2002.

Proposed regulatory amendment to modify sideboards.

ALLOCATION DISPUTE OVER POLLOCK SETTLED

The inshore/offshore allocations of Bering Sea pollock were extremely contentious decisions for the Council. Measures to address overcapacity in this fishery, beyond the license limitation program, were limited as the Magnuson-Stevens Act had been revised to include a 6-year (1995-2000) moratorium on development of new individual fishing quota systems. Following the Council's decision on the third iteration of the inshore/offshore allocation in June 1998, representatives from the catcher/processor sector sought congressional intervention, and representatives of other sectors soon joined in to protect or advance their economic interests in the BSAI pollock fishery. This group worked with Senator Stevens to draft legislation (S. 1221) that would address foreign ownership of fishing vessels and overcapacity in the Being Sea pollock fishery. The American Fisheries Act (AFA) was signed into law in October 1998 as part of the Omnibus Appropriations Bill. The AFA contained several major provisions: U.S. ownership requirements, a permit/vessel buyout, a listing of qualified vessels, processer eligibility requirements, revised sector allocations, increased pollock allocation to the Community Development Quota (CDQ) Program, provision for fishery cooperatives, and sideboard provisions.

AFA Cooperatives, 2009

Akutan Catcher Vessel Association
Arctic Enterprise Association
Catcher Vessel Intercooperative
Pollock Conservation Cooperative
High Seas Catchers' Cooperative
Mothership Fleet Cooperative
Northern Victor Fleet Cooperative
Peter Pan Fleet Cooperative
Unalaska Fleet Cooperative
Unisea Fleet Cooperative
Westward Fleet Cooperative

To reduce foreign ownership, the AFA required that all vessel-owning entities be at least 75% owned and controlled by U.S. citizens by October 1, 2001. Consequently, U.S. ownership is required for all vessels fishing in the U.S. Federal waters (with the exception of Western Pacific). Implementation of the ownership standards is the responsibility of the Maritime Administration of the U.S. Department of Transportation.

The provisions of the AFA included a $95 million buyout and permanent retirement of the fishery permits for 9 named large factory catcher/processor vessels, thus reducing the pollock catcher/processor fleet to 20 qualified vessels. The buyout was comprised of two parts: $20 million in direct payments to owners of catcher/processors ($15 million to owners of the retired vessels and $5 million to owners of 5 other named catcher/processors), and $70 million in direct loan obligations (to compensate the owners of the nine retired vessels). This loan obligation would be paid by the inshore sector via a fee system amounting to 0.6 cents per pound of harvested pollock until the loan is fully repaid.

The AFA also limits eligibility for participation, specifically listing 3 eligible motherships (Excellence, Golden Alaska, and Ocean Pheonix), 19 catcher vessels eligible to deliver to motherships, 7 catcher vessels eligible to fish and deliver a suballocation to catcher/processors (American Challanger, Forum Star, Muir Milach, Neahkahnie, Ocean Harvester, Sea Storm, and Tracy Anne), and 20 catcher/processors eligible to participate in the offshore sector. For the inshore


Diana Stram

Diana Evans

sector, eligible processing plants and catcher vessels were defined based on catch or processing history, and a total of 112 catcher vessels and 8 processing plants qualified. The AFA specifies that pollock taken in the inshore sector's directed fishery can only be taken by qualified vessels and delivered to qualified processing plants. Thus, the AFA established the first limited entry program for processors in the United States.

The AFA settled the contentious inshore/offshore allocation issue by firmly establishing the allocation of BSAI pollock quota among the sectors. The CDQ Program allocation of the BSAI pollock total allowable catch was increased from 7.5% to 10%. The remaining pollock quota was allocated as follows: 50% to the inshore sector (catcher vessels delivering onshore), 40% to the offshore (catcher/processors), and 10% to motherships. Further, not less than 8.5% of the catcher/processors' directed allocation is available to the 7 eligible catcher vessels in the catcher/processor sector.

The AFA eliminated the race for pollock through the establishment of cooperatives with specific provisions for their allocations, structure, and participation by catcher vessels and processing plants, as well as annual reporting requirements and excessive share limits. In response to a directive in the AFA, the Council added measures to protect other fisheries from adverse effects arising from the exclusive pollock allocation. Cooperative fishing began under the AFA program in 1999.

The effects of AFA on the pollock industry were tremendous. Capacity was reduced, efficiency was increased, regulatory bycatch was reduced, a higher portion of the fish was utilized, and higher valued products were produced.

COUNCIL ACTION

In 1999 and 2000, the Council spent a substantial portion of each meeting to develop sideboard measures to protect other fisheries, as well as restrictions on cooperatives, monitoring requirements, and other measures to implement the AFA. While the permanent management program proposed under Amendments 61/61/13/8 was under analysis and development by the Council and NOAA Fisheries, the statutory deadlines in the AFA were met on an interim basis through several emergency interim rules.

ON THE HORIZON

There are no changes currently under consideration for the AFA program.


Mark Fina

BSAI Crab Rationalization

A DANGEROUS RACE FOR CRAB

By 2000, the Bering Sea/Aleutian Islands crab industry had become extremely overcapitalized due to the derby-style nature of the fishery, and profits were beginning to plummet with reduced snow crab (*Chionoecetes opilio*) catch limits. The race to catch the annual harvest limit resulted in very short seasons, and reduced safety, product quality, and efficiency. To address the problems, the Council established a committee and started to develop alternatives and options for analysis. Congress further directed the Council to assess IFQs, processor shares, cooperatives, and community quotas for the crab fisheries as part of the Consolidated Appropriations Act of 2001.

A SHARE-BASED PROGRAM

Rationalized Crab Fisheries

Western Aleutians golden king crab
Eastern Aleutians golden king crab
Western Aleutians red king crab
Bristol Bay red king crab
Pribilof red and blue king crab
St. Matthew blue king crab
Bering Sea snow crab
Eastern Bering Sea Tanner crab
Western Bering Sea Tanner crab

In June 2002, the Council unanimously recommended a voluntary cooperative program with 100 percent of the total allowable catch (TAC) allocated through harvest shares, as well as issuance of processor quota shares. For the harvest shares, 90% of the catcher vessel allocation for each fishery is issued as Class A shares (which require delivery to a processor holding individual processor quotas for that fishery), and the other 10% of the catcher vessel allocation is issued as Class B shares (which can be delivered to any processor). The dual allocations of harvesting and processing shares were intended to strike an equitable balance of the interests between the two sectors. The program also allocates 10% of the TAC to community development quota groups, and 3% of the harvest share pool to captains and crew (C shares).

The program includes other important features. It protects historic distribution of landings and processing between North and South regions (with the Pribilof Islands in the North and the Aleutians and the Gulf of Alaska in the South). The program also includes use caps, an economic data collection system, a vessel monitoring system requirement, a fee system (up to 3%) to cover management costs and fund a loan program for entry level fishermen, sideboard caps limiting harvests of Gulf of Alaska groundfish by participants in the BSAI crab fisheries, a binding arbitration program for resolving price disputes between the harvesters and processors, and a schedule for comprehensive reviews of the program (18 months, 3 years, 5 years, and every 5 years thereafter).

Congress authorized the program (including issuance of quota shares to processors) as part of the Consolidated Appropriations Act of 2004. The program was implemented in 2005 as Amendments 18 (overall program) and 19 (binding arbitration modifications).

CHALLENGES AND CHANGES

Although consolidation of the fishery was one of the objectives of the program, the speed and magnitude of consolidation (from about 250 vessels down to less

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Fina, M. 2005. Rationalization of the Bering Sea and Aleutian Islands crab fisheries. Marine Policy 29:311-322.

Fina, M. 2003. Development of rationalization programs in the North Pacific groundfish and crab fisheries. National Fishery Law Symposium, available on the Council's website.

FMP References

BSAI Crab Amendments 18 and 19; 70 FR 10174, effective April 1, 2005.

Forrest Bowers

Mark Fina

than 80 in the major fisheries) was a surprise to some fishermen who found themselves without a berth on the remaining participating vessels. In addition, during the first year of implementation, there was an increase in bycatch of small and female crabs in the red king crab fishery, and an increase in discards of lower-value legal size male crabs (those with a brown shell or covered with barnacles), which is also known as high grading. Potential stock effects were addressed immediately by a voluntary industry initiative and by ADF&G in their stock assessments.

The Council has refined the program over time as issues developed. In 2005, the Council discussed the management of Tanner crab (C. bairdi) stocks east and west of 166° W. longitude, and the Council decided to create two equivalent allocations for the two separate Tanner crab stocks, based on a person's history during the qualifying years regardless of where the harvest occurred. In February 2006, the Council adopted Amendment 21 that modified the timing for harvesters and processors to match shares and initiate arbitration proceedings. Amendment 25 implemented the 2006 revised Magnuson Stevens Act provision that authorized the conversion of catcher vessel owner quota shares and processing quota shares to newly created North Region catcher/processor owner quota shares. In December 2007, the Council adopted several new amendments to the program, including: Amendment 26 that would indefinitely exempt C shares from the 90/10 A share/B share split; Amendment 27 that would exempt certain custom processing from processing share use caps; and Amendment 28 that would allow for post-delivery transfers of any share type (A share IFQ/ B share IFQ, individual processing quota) to cover overages. In 2008, the Council refined the program to require C share holders actively participate in the fishery, and modified some aspects of the binding arbitration system. In December 2008, the Council received a report summarizing the performance of the rationalization program after 3 years.

ON THE HORIZON

The Council is currently considering additional changes to the program, including: modifications to the community rights of first refusal on processing shares; creating an exemption to the West region landing requirement for Western Aleutian golden king crab fishery; and creating a provision for emergency exemption from regional landing requirements.

The Council is scheduled to receive the 5-year review of the crab rationalization program in December 2010. Additionally, the Council has also been considering other modifications to the basic program structure, focusing on crew issues and redesignation of owner quota share and crew quota share, the development of regional fishery associations to address crew issues, and an industry proposal to facilitate crew acquisition of quota share.


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Central Gulf of Alaska Rockfish Pilot Program

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Fina, M. 2007. A Share-Based Management Program for the Central Gulf of Alaska Rockfish Fishery. *In:* Heifetz et al. (Editors). Biology, Assessment, and Management of North Pacific Rockfishes. Alaska Sea Grant College Program AK-SG-07-01. pp. 295-313, available on the Council's website.

FMP References

GOA Groundfish Amendment 68; 71 FR 67210, implemented December 20, 2006.

THE RACE FOR ROCKFISH REDUCED PRODUCT VALUE

Pacific ocean perch, northern rockfish, and pelagic shelf rockfish (dusky, yellowtail, and widow rockfish) have historically been harvested primarily by trawl gear, with less than 1% taken by longlines or other gear. The rockfish fisheries in the Gulf of Alaska have been an important, yet short duration fishery for about 30 trawl catcher vessels and 5 trawl catcher processors that participated. The trawl season typically opened on or about July 1 and lasted for a week or two, with the fleet targeting Pacific ocean perch first and the other rockfish species thereafter. Rockfish taken by catcher vessels have traditionally been delivered to Kodiak processors, and due to the season timing and duration, more than half of the catch was processed into lower value whole and headed-and-gutted products rather than higher valued fillets.

A HISTORY-BASED COOPERATIVE PROGRAM

The US Congress, through the Consolidated Appropriations Act of 2004 (Section 802), directed NOAA Fisheries (in consultation with the Council) to establish a two year pilot program for managing trawl fisheries for major rockfish species in the Central Regulatory Area of the Gulf of Alaska. In June 2005, the Council adopted the program as Amendment 68 to the GOA Groundfish Fishery Management Plan. Although the pilot program was originally established as a two year program (for 2007-2008), the Magnuson Stevens Reauthorization Act extended the program to 5 years.

Under the program, 95 percent of the directed fishery total allowable catches (TACs) of three target rockfish species (Pacific ocean perch, northern rockfish, and pelagic shelf rockfish) are allocated to the rockfish demonstration program. The remaining 5% of the TAC for these species is set aside to support an entry level fishery (50% trawl / 50% non-trawl) for vessels not eligible to participate. The demonstration program apportions the directed fishery TAC into 1) exclusive shares that are allocated to cooperatives, 2) rockfish program limited access fisheries, and 3) entry level limited access fisheries. Eligible harvesters can choose to join a cooperative or fish in the limited access fishery, or opt-out of the program (only catcher processors). Allocations to cooperatives are based on members' fishing histories. The allocation to the limited access fisheries are based on histories of eligible harvesters that choose to fish in the limited access. The fishery is open for the harvest of cooperative allocations from May 1 to November 15. The limited access fisheries open July 1 and close for each target rockfish species upon the harvest of the TAC of that species.

Persons who hold a limited license program license used for at least one directed rockfish landing in the Central Gulf of Alaska between 1996 and 2002 are eligible for the program. Each eligible license, in turn, is credited with history, based on all target rockfish species landings during the directed fishery from 1996 to 2002. Catcher processor license holders are eligible to join a catcher processor cooperative, with any other catcher processor license holder. Each catcher vessel license is eligible for a specific cooperative, which must be associated with a specific processor identified by its landings history from 1996 to 2000.

Mark Fina

Rationalized Central GOA Rockfish Fisheries

Pacific Ocean Perch
Northern Rockfish
Pelagic Shelf Rockfish
(Dusky Rockfish, Yellowtail Rockfish, Widow Rockfish)

In addition to the allocation of target rockfish, cooperatives also receive allocations of valuable 'secondary species,' which include sablefish, shortspine thornyhead rockfish, Pacific cod (for catcher vessel cooperatives), and shortraker and rougheye rockfish (for catcher processor cooperatives only). Allocations to each sector are based on the average percent of retained catch of the species in the target rockfish fisheries during the 1996 to 2002 qualifying period. The allocation is divided among cooperatives in a sector based on the share of the sector's target rockfish allocation received by the cooperative. The limited access fishery receives no allocation of these species, so catches are limited by regulatory maximum retainable amounts (which allow a certain percentage of incidental species to be retained with a target rockfish harvest). Each cooperative also receives an allocation of halibut prohibited species catch, which is based on historic halibut bycatch in the target rockfish fisheries and the target rockfish allocation of the cooperative, in a manner similar to the secondary species allocations.

The program includes other important features. Cooperatives must file a cooperative membership agreement with NMFS, containing a fishing plan, legal contractual obligations of members, and a monitoring program, and must annually report to the Council. Full retention of allocated species is required to eliminate waste. Use caps for individual vessels (5% for catcher vessels, 20% for catcher processors) and cooperatives (30% for catcher vessel cooperatives, 60% for catcher processors) prevent excessive consolidation of the fleet. Shoreside processors are also subject to use caps (30%), unless grandfathered at a higher level based on processing history. Sideboard restrictions and stand-down requirements prevent those cooperative member vessels not fishing their allocations from increasing effort in other fisheries.

Annual reports from the cooperatives have shown that the rockfish program has spread out catch over the year, brought more fish to shore, improved retention and market value, reduced halibut bycatch, and allowed more off-bottom fishing.

CHALLENGES AND CHANGES

In December 2007, the Council adopted an amendment to permit post-delivery transfers of cooperative quota (annual allocations to cooperatives) to prevent harvest overages that could be covered by quota transfers, reducing enforcement costs and allowing for more complete harvest of the TAC. The Council received a review of the program in June 2008, and rather than initiating further adjustments to the existing program, decided to focus efforts on developing a new program to replace the pilot program that expires at the end of 2011.

ON THE HORIZON

The Council is scheduled to take final action on a new CGOA rockfish rationalization program in June 2010.

Phil Dang

Amendment 80 Cooperatives

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For More Information

Amendment 80 program information on the NOAA Fisheries webpage, www.alaskafisheries.noaa.gov/sustainablefisheries/amds/80/default.htm

FMP References

BSAI Groundfish Amendment 80; 72 FR 52668, implemented October 15, 2007.

THE RACE FOR FISH PROVIDED INCENTIVE TO DISCARD

The Bering Sea flatfish fisheries, along with the Atka mackerel and Pacific ocean perch fisheries in the Aleutian Islands, have been prosecuted almost exclusively by a fleet of bottom trawl catcher vessels (the 'head-and-gut' fleet) that do not target pollock. This sector has historically had high discard rates relative to other groundfish fisheries off Alaska. In the multi-species flatfish fisheries, the lower valued fish (less valuable species, smaller fish, and fish without roe) were discarded, and only the more valuable fish retained. Typically, the fish were processed either with the head and guts removed, or frozen whole. The race for fish exacerbated economic discarding by providing incentives to discard the less valuable fish that used up processing time and limited freezer space.

A HISTORY-BASED COOPERATIVE PROGRAM

Reducing bycatch and waste of fishery resources has long been a priority for the Council. In 1996, the Council adopted BSAI Amendment 49 to require full retention of all pollock and Pacific cod beginning in 1998, with full retention of yellowfin sole and rocksole scheduled to start in 2003. In 2001, the Council decided to delay flatfish retention requirement by 18 months, but the amendment was partially disapproved by the Secretary, allowing for an indefinite delay. In June 2003, the Council adopted a groundfish retention standard (GRS) as Amendment 79, which requires minimum retention of flatfish on vessels greater than or equal to 125 feet length overall, gradually increasing from 65% to 85% over four years. The GRS became effective January 20, 2008.

The Council initiated development of Amendment 80 cooperatives in October 2002, and after a lengthy period of analysis, deliberation, and public input, took final action to adopt the program in June 2006. The Amendment 80 sector was defined by Congress in Section 219 of the Consolidated Appropriations Act of 2005, thus determining who may participate in the program. To qualify, vessels must have been a non-AFA trawl catcher processor and have a valid limited license permit (LLP) with a BSAI catcher/processor endorsement, and have processed more than 150 mt of groundfish (other than pollock) during the period 1997 through 2002.

The program allocates a portion of total allowable catches (TACs) for Atka mackerel, Pacific ocean perch, and 3 flatfish species (yellowfin sole, rock sole, and flathead sole), along with an allocation of prohibited species catch (PSC) quota for halibut and crab, to the Amendment 80 sector. All of the allocations are managed as a hard cap. These allocations are issued annually as quota share (QS) to owners of Amendment 80 vessels (or LLP holders if the vessel is 'lost'), based on the vessel's catch history from 1998-2004. The QS can be fished within a cooperative (comprised of at least 3 separate entities with at least 30% of the Amendment 80 vessels) as aggregated cooperative quota. Amendment 80 QS holders who do not form a cooperative arrangement with others are placed in the limited access fishery, and continue to compete with each other for catch and PSC. Allocations of target species to the Amendment 80 sector are as follows:

Mark Fina

Amendment 80 Cooperative, 2009

Best Use Cooperative

Includes 16 of the 28 qualified vessels

Percent of Amendment 80 quota share allocated to cooperative

41% of Pacific ocean perch
88% of flathead sole
75% of rock sole
60% of yellowfin sole
42% of Atka mackerel

Observer sampling station on Amendment 80 F/V Seafisher. Shows flowscale, table and platform scale, video monitoring display, and display for platform scale.

Phil Dang

- **Yellowfin sole** (up to 93% of the TAC, depending on overall TAC)
- **Rock sole** (100%)
- **Flathead sole** (100%)
- **Atka mackerel** (90-100% of the TAC depending on sub- area)
- **Aleutian Islands Pacific Ocean Perch** (90-98% depending on sub-area)

Allocation of halibut and crab PSC are made to the Amendment 80 sector and the BSAI trawl limited access sector. For the Amendment 80 sector, these PSC limits are reduced annually over the first 5 years following implementation. The program was implemented at the start of the 2008 fishery.

The program includes other important features. The minimum GRS requirements apply to all Amendment 80 vessels regardless of vessel size. Use caps were included in the program to limit the amount of QS a person can hold, the amount of cooperative quota a person can use, and the amount an individual vessel can harvest. Sideboards were added to limit the ability of Amendment 80 vessels from expanding their effort in Gulf of Alaska fisheries. An economic data collection program was included to assess impacts of the program. Additional monitoring and enforcement requirements were added to allow catch and PSC bycatch accounting on individual vessels, including: 200% observer coverage, scales, prohibition on mixing hauls, bin monitoring, and other requirements.

In February 2008, the Council acted to allow cooperatives to engage in unlimited post-delivery transfers to cover quota overages.

ON THE HORIZON

The Council recently took final action to modify Amendment 80 cooperative formation regulations. Although not yet implemented, the new cooperative formation rules would require two quota share holders and seven quota share permits. Relaxing cooperative formation standards could provide additional opportunities to quota share holders to form cooperatives. The new rules would also require a quota share holder to assign all quota share permits either to a cooperative or to the limited access fishery beginning two years after implementation of the final rule. The Council also modified GRS to apply in aggregate, to all cooperatives if the GRS calculation meets or exceeds the GRS requirement.

The Council is also scheduled to take final action on Amendment 80 lost vessel replacement in the near future. This action is initiated to address a May 19, 2008, ruling of the U.S. District Court of the Western District of Washington that invalidated the Amendment 80 provisions limited the vessels used in the Amendment 80 program. The intent of this action is to allow Amendment 80 vessel owners to replace their vessels due to physical or constructive loss, ineligibility to be used on a U.S. fishery, or for other reasons that could improve safety, expand processing options, or improve economic efficiency. In addition, the replacement of smaller Amendment 80 vessels by larger vessels could improve the ability of owners to comply with GRS.


Nicole Kimball

Community Development Quota Program

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National Research Council. 1999. Community development quota system in Alaska. National Academy Press, Washington, D.C. 228 p.

Ginter, J.C. 1995. The Alaska community development quota fisheries management program. Ocean and Coastal Management 28: 147-163.

FMP References

Proposed regulatory amendment to implement new CDQ provisions resulting from the reauthorized Magnuson-Stevens Act.

OPPORTUNITY FOR COASTAL COMMUNITIES

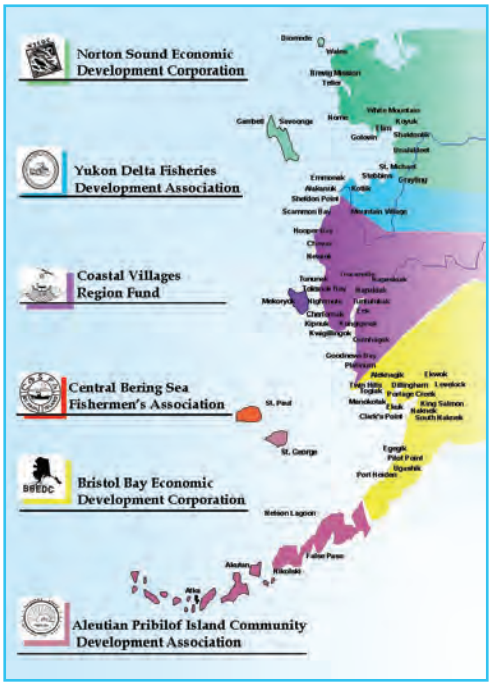
In 1991, the Council adopted a provision to the inshore/offshore analysis to allocate 7.5 percent of the BSAI pollock total allowable catch (TAC) to the Community Development Quota (CDQ) Program to provide communities with exclusive access to the commercial pollock fishery and thus, generate revenue for community development for disadvantaged coastal communities in western Alaska. The CDQ Program was approved in March 1992, and regulations were quickly developed. By June 1992, 56 eligible communities had organized into six regional non-profit corporations (CDQ groups) and applied for quota. In November 1992, the program was approved with quota allocations to the six individual CDQ groups. The CDQ groups harvested almost the entire 7.5% pollock allocation in the few remaining weeks of 1992.

The CDQ Program concept expanded quickly. The Council added halibut and sablefish to the CDQ Program when it took final action to establish an IFQ program for the commercial halibut and sablefish fisheries. For BSAI sablefish, 20% of the annual fixed gear TAC for each management subarea was allocated to the CDQ program. For halibut, the allocation differed based on halibut management areas in western Alaska: 100% in 4E, 50% in 4C, 20% in 4B, and 30% in 4D. Because halibut can be caught in the vicinity of some CDQ communities, these allocations were expected to provide real fishing opportunities for CDQ community residents. Compensation of quota share in other areas was made to accommodate those persons whose quota history was reduced by the CDQ allocations.

EVOLUTION OF THE PROGRAM

In June 1995, the Council voted to reauthorize the pollock CDQ Program for three years as part of its new inshore/offshore allocation decision. Additionally, the Council voted to allocate 7.5% of all BSAI groundfish TACs and BSAI crab quotas to the CDQ Program, as part of its final action on a license limitation program for groundfish and crab fisheries. The Sustainable Fisheries Act, which amended the Magnuson-Stevens Act in 1996, cemented these CDQ allocations. Further, the 1996 amendments established a phase-in schedule for the allocation of BSAI crab: 3.5% in 1998, 5% in 1999, and 7.5% for 2000 onward, or until modified by the Council and approved by the Secretary. Between 1997 and 1998, additional communities were added to the program, for a total of 65. In 1999, the American Fisheries Act increased the CDQ program allocation of the BSAI pollock TAC to 10%.

The CDQ Program continues to evolve. In 2005, the Governor of Alaska appointed a blue ribbon panel to evaluate the CDQ Program. The panel's recommendations included changes to the allocation cycle, the allocation criteria, and the use of CDQ funds. The panel also recommended that 90% of the allocation be fixed in regulations, so that only 10% was subject to reallocation each allocation cycle. Continued concerns from the CDQ groups over the allocations led to Congressional action, in the form of the U.S. Coast Guard and Maritime Transportation Act that amended the Magnuson-Stevens Act in July 2006. This law revised the allocation process by fixing the current allocations among the CDQ groups through 2012, subject to change every 10 years thereafter. It also followed the recommendations of the blue ribbon panel,



Nicole Kimball

APICDA

requiring that 90% of each CDQ group's allocation would be extended through each 10-year cycle. This law also made significant changes to all aspects of fisheries management, allocations, and government oversight related to the CDQ Program. Among those changes was the establishment of a CDQ Panel which comprises one member of each CDQ group. The panel must act unanimously and is charged with administering those aspects of the program not otherwise addressed in the Act, as well as coordinating the activities of the CDQ groups. In addition, the Act required that there would be a directed CDQ fishing allocation of 10% upon the establishment of any new quota program, fishing cooperative, sector allocation, or other rationalization program.

Just six months later, the Magnuson-Stevens Act was reauthorized (January 12, 2007) and included several more changes to the CDQ Program. Among those included a change requiring an increase in the current allocations for each BSAI directed fishery (other than halibut, sablefish, pollock, and crab) to a total allocation of 10.7%, effective January 1, 2008, and the same percentage for any new directed BSAI fishery that may be established. Similar to the original CDQ Program, the 10.7% allocation cannot be exceeded; the allocation must serve both the target and non-target needs of the CDQ groups.

BENEFITS OF THE PROGRAM

The most common component of the CDQ fisheries is the royalty payment derived from leasing the CDQ quota through partnerships with industry. Pollock royalties remain the largest source of revenue for the CDQ groups, typically accounting for over 80% of annual program revenues. CDQ groups have become active and significant participants in the commercial fishing industry by purchasing ownership interests in the Bering Sea fishing fleet. Typical community investments and projects engaged in by the groups include providing capital for fish buying stations and processing facilities; establishing vessel and gear revolving loan programs; developing port and harbor facilities; and providing funds for science and research. A large part of the program is also focused on employment and education. The CDQ groups have invested to varying degrees in vocational training programs and education scholarships. In addition, community residents are employed on commercial fishing vessels, in shoreside processing plants, with other associated projects (construction, welding, etc.) and with the CDQ corporations themselves.

The recent Magnuson-Stevens Act amendments made significant changes to all aspects of the CDQ Program. Part of the overall intent of the amendments was to reduce the government's role in program oversight, understanding that there remain continued responsibilities for the Department of Commerce, the Council, and the State of Alaska. In June 2006, the Council articulated its interest in being directly involved in CDQ actions related directly to fishery management or conservation, but only to be apprised of other actions. The BSAI Groundfish FMP and Federal regulations have been amended to be consistent with the Act.

ON THE HORIZON

There are currently no CDQ program changes on the horizon.


Cathy Coon

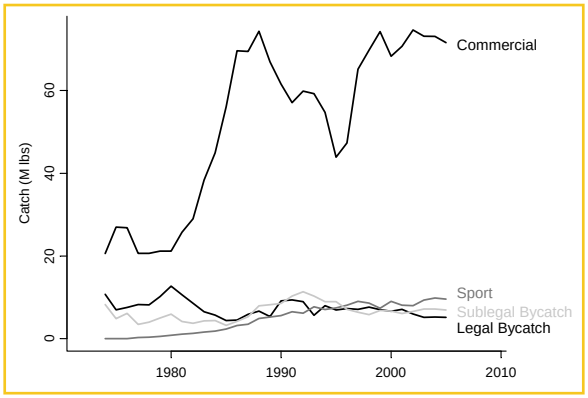
Charter Halibut

A COMMERCIAL AND GUIDED SPORT ALLOCATION

Increasing catches of halibut in the charter (or guided sport) halibut sector in the early 1990s raised concerns about localized depletion of halibut and the potential reallocation of halibut from the commercial halibut Individual Fish Quota (IFQ) fisheries to the charter fisheries in Southeast (Area 2C) and Southcentral (Area 3A) Alaska. In 1995, the Council developed a problem statement that identified issues regarding the maintenance of a stable, economically viable, and diverse commercial halibut industry; the quality of the recreational experience; access of subsistence users; and socioeconomic well-being of the coastal communities dependent on the halibut resource.

The Council developed a number of actions to limit growth of the charter halibut sector. In 2000, the Council adopted a guideline harvest level (GHL) program for Area 2C and Area 3A. The GHL established a pre-season estimate of acceptable annual harvests for the halibut charter fishery, beginning in 2004. To allow for limited growth of the charter fleet while approximating historical harvest levels, the GHLs were based on 125% of the average of 1995-99 charter harvest estimates, as reported by ADF&G. The GHLs were set at 1,432,000 lb net weight in Area 2C (equivalent to 13.05% of the combined charter and commercial limit) and 3,650,000 lb net weight in Area 3A (14.11% of a combined charter and commercial limit). In the event of a reduction in either area's halibut biomass, as determined by the International Pacific Halibut Commission, the area GHL would be reduced incrementally in proportion to the quota reduction. Reductions in the GHL would be made using percentages of the average harvests from 1999 to 2000, as a reflection of more recent harvest levels.

In April 2001, the Council adopted a quota share program for the halibut charter fishery based on participation during 1998 or 1999, and 2000. Following several years spent developing the proposed rule to implement the program, the National Marine Fisheries Service Administrator requested that the Council reaffirm its recommendation for this program. In December 2005, the Council withdrew its recommendation for a quota share program, after two days of testimony from more than 150 members of the public.



Clark and Hare 2007

Commercial, sport (guided and non-guided), sublegal, and legal bycatch for all areas, 1974-2005.

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For More Information

Halibut information is available on the Council's webpage.

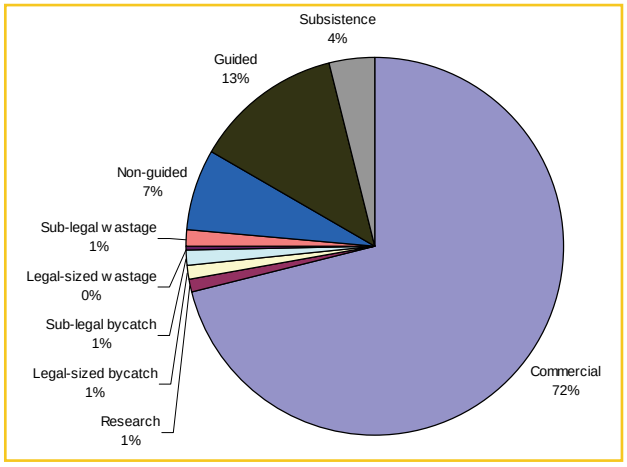
Clark W. and S. Hare. Assessment of the Pacific halibut stock at the end of 2007. IPHC. www.iphc.washington.edu/halcom/research/sa/papers/sa07.pdf

FMP References

Charter halibut regulations, 50 CFR 300 Subpart E, 300.60 - 300.66, ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=9e06e97fc10a603187c408f185f96072&rgn=div6&view=text&node=50:7.0.2.11.1.5&idno=50

The GHL in Area 2C has exceeded its GHL every year since its implementation in 2004. The GHL in Area 3A has never been exceeded. In 2007, in response to the overages in Area 2C, the 2-fish daily limit for charter customers was modified to require that one of the fish be less than or equal to 32 inches. In 2008, the GHL in Area 2C was reduced to 932,000 lb due to a reduction in halibut biomass in that area. In 2009, the Area 2C GHL was reduced to 788,000 lb and the bag limit was reduced to one fish (of any size).

Charter halibut harvests as a percentage of halibut removals in directed halibut fisheries, 1995-2006. Bycatch in groundfish fisheries is not included.



International Pacific Halibut Commission

Rex Murphy

In 2010, NMFS approved the Council's limited entry (moratorium) program for the Area 2C and Area 3A charter fisheries. Charter halibut guides will be required to carry their new permit on board starting February 1, 2011. Under the new program:

- permits will be issued to qualifying individuals or businesses that documented fishing trips during a qualifying year (2004 or 2005) and the recent participation year (2008);
- charter halibut business operators are required to have a charter halibut permit on board to fish for halibut;
- permit holders are subject to limits on the number of permits they can hold and on the number of charter boat anglers who can catch and retain halibut on their charter boats;
- newcomers can enter the charter halibut fishery by acquiring a transferable permit;
- permits will be issued to community quota entities representing specific rural communities in Area 2C and 3A;
- permits will be required for charter halibut vessel operation only in Area 2C and 3A.

Diana Stram

ON THE HORIZON

The Council adopted a Catch Sharing Plan between the charter and commercial IFQ sectors, which would replace the GHL Program. The plan would implement a matrix of management measures for charter anglers that would be linked to halibut biomass and different allocations. It would also allow charter halibut limited entry permit holders to lease commercial halibut IFQ for use by anglers in the charter sector, thereby compensating the commercial sector for seasonal increases in the charter sector allocation. The Council may consider share-based alternatives as a permanent solution to management of the charter sector in the future.

Mark Fina

License Limitation Program

A HISTORY-BASED PROGRAM TO LIMIT CAPACITY

In the mid-1990s, the Council began discussing ways to address overcapacity concerns in the groundfish fisheries. A license limitation program was proposed, and in 1995 a moratorium on entry of new vessels was implemented, to limit speculative entry into the fisheries while a more comprehensive program was being developed. The License Limitation Program (LLP) was eventually implemented in 2000, which limits access to the Federal groundfish and crab fisheries.

The LLP established criteria for issuing licenses to persons, based on fishing history of vessels. The initial criteria for general qualification were relatively minimal: one landing during a five year period (1988 – 1992). Licenses carry one or more fishing area endorsements (Bering Sea, Aleutian Islands, Central GOA, Western GOA, Southeast GOA), and also carry designations for operation type (catcher processor (CP) or catcher vessel (CV)), gear (trawl and/or fixed gear), and maximum vessel length. There are currently more than 1,800 groundfish licenses and 350 crab licenses. Several changes have been made to the program over the past several years, including establishing a BSAI Pacific cod endorsement for fixed gear (longline and pot) CVs and CPs over 60 ft. Participants must have this endorsement to fish in the directed BSAI Pacific cod fishery.

RECENT CHANGES TO THE PROGRAM

Since the program was first established, many trawl and fixed gear groundfish licenses have been inactive, thus incurring the term 'latent' licenses. The Council recently took final action on amendments to remove latent licenses, to prevent their future re-entry into the groundfish fisheries. Although removing latent licenses may not have a near-term practical effect, over the long-term this may have the potential to limit overcrowding, increase efficiency, improve safety, and reduce bycatch, by slowing down the fisheries. As a result, license holders with recent participation in the fisheries will be protected from possible future use of latent licenses, and reduction of their gross revenue share due to this participation.

Trawl recency

Trawl groundfish fisheries are fully utilized in the BSAI and GOA. The Council's April 2008 action protects the current harvest share of trawl participants who have made significant investments in the fisheries, and have recent harvests of BSAI and GOA groundfish, from other license holders with little or no recent history in the fisheries. Of particular concern is that GOA fisheries continue to remain limited access (not rationalized) fisheries, so competition in these fisheries may continue to increase due

Reductions in trawl licenses

Catcher Processors		
	Bering Sea	**6%**
	Aleutian Islands	**11%**
	Central GOA	**26%**
	Western GOA	**27%**
Catcher Vessels		
	Bering Sea	**22%**
	Aleutian Islands	**10%**
	Central GOA	**45%**
	Western GOA	**52%**

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For More Information

GOA Groundfish management information is available on the Council's webpage.

FMP References

Trawl recency: proposed BSAI / GOA Groundfish FMP Amendments 92/82.

Fixed gear recency: proposed GOA Groundfish FMP Amendment 81.

Herman Savikko

to a number of factors, including the rationalization of other fisheries, favorable market prices, and a potential for harvest quota changes in future years.

The Council's action removes the area endorsements (excluding Southeast GOA) from trawl CV and CP licenses if the license does not meet the harvest threshold of two groundfish landings during 2000 – 2006. In effect, if the trawl license at issue has only one area endorsement and it does not meet the landing threshold selected, the entire license is extinguished. If the license has multiple area endorsements and it does not meet the landing threshold for a specific area, the license will be reissued with only the area endorsements for which it qualifies. In addition, the Council's action creates 12 new Aleutian Island endorsements for use on non-AFA trawl CV licenses. This action was effective in September 2009.

GOA Fixed Gear Recency

The Gulf of Alaska groundfish fisheries are among the few remaining limited access (not rationalized) fisheries in Alaska. Of these fisheries, Pacific cod is the predominant groundfish species targeted by the fixed gear sectors in the GOA. In recent years, competition among fixed gear participants in the Western and Central Gulf groundfish fisheries has intensified, particularly during the A season (January-June), when fish are aggregated and of highest value.

Diana Evans

The Council's April 2009 action adds gear-specific (pot, hook-and-line, or jig) Pacific cod endorsements to GOA fixed gear licenses that meet a minimum catch threshold during 2002-2008. The threshold is 10 mt of Pacific cod landings for small vessels (<60 ft in length), and 50 mt for large vessels (≥60 ft in length) and catcher processors. The action reduces the number of fixed gear licenses eligible to access the GOA Pacific cod fisheries by 75%. As a result, the number of participants in the directed GOA Pacific cod fisheries will be permanently capped at the number of available licenses, and new entrants will have to purchase an existing license if they wish to fish in federal waters. This action may enhance stability in the GOA Pacific cod fishery, reduce competition among fixed gear participants, and protect historic catch shares of participants.

Finally, the Council's action also includes two provisions to expand entry opportunities for small vessels and residents of coastal communities in Alaska. The action exempts vessels using jig gear from the LLP requirement in the GOA, with gear restrictions (up to five jigging machines). In addition, the action provides a specified number of fixed gear licenses to residents of 21 GOA Community Quota Entity (CQE) communities. These licenses may be used on small vessels (<60 ft in length) using pot or hook-and-line gear in the GOA Pacific cod fisheries.

Herman Savikko

Diana Evans

Gulf of Alaska Pacific Cod Sector Allocations

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FMP References

GOA Pacific cod sector allocations: proposed GOA Groundfish FMP Amendment 80.

GROUNDFISH MANAGEMENT CHALLENGES

In 1999, the Council began developing a package of measures to rationalize the derby style GOA groundfish fisheries and address concerns regarding social and economic impacts of regulations on harvesters, processors, crew, and communities that depend on the GOA fisheries. Over the next few years, the Council developed and refined alternatives for a GOA groundfish rationalization program. In December 2006, however, the Council elected to delay further consideration of the comprehensive rationalization program and instead proceeded with the more discrete issues of allocating the Pacific cod resource to the various gear sectors and limiting future entry to the groundfish fisheries by extinguishing latent Limited License Program (LLP) licenses.

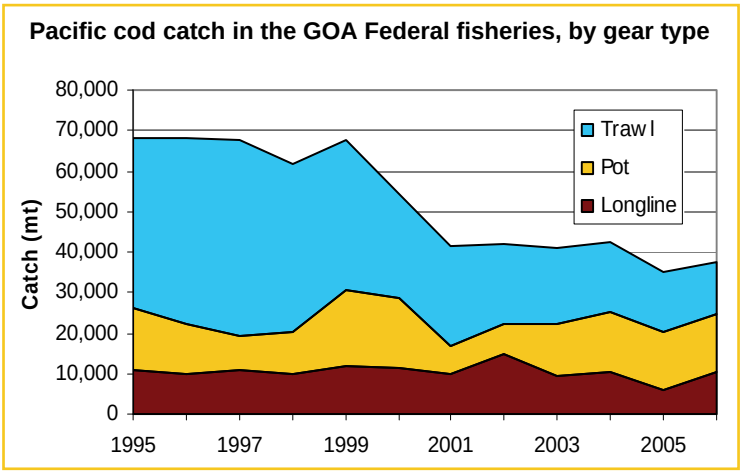
GOA PACIFIC COD FISHERY

Pacific cod is the second major species (after pollock) in the commercial groundfish catch in the GOA. Pacific cod is one of the most valuable species targeted by the remaining open access fisheries in the GOA, and is the primary species targeted by the fixed gear sectors. The GOA Pacific cod resource is fished by multiple gear and operation types, principally pot, trawl, and hook-and-line catcher vessels, and hook-and-line catcher processors. Smaller amounts of cod are taken by other sectors, including catcher vessels using jig gear.

Currently, separate total allowable catches (TACs) are identified for Pacific cod in the Western, Central, and Eastern GOA regulatory areas. Final 2010 harvest specifications apportioned 62% of Pacific cod catch to the Central Gulf (36,782 mt), 35% to the Western Gulf (20,764 mt), and 3% to the Eastern Gulf (2,017 mt). TACs are apportioned 90% to the inshore sector and 10% offshore. TACs are also apportioned seasonally, with 60% allocated to the A season (January 1 – June 10) and 40 percent to the B season (September 1 - December 31). The A and B season apportionments were implemented in 2001 as a Steller sea lion protection measure. Currently, TACs are not allocated by gear or operation type, which results in derby-style race for fish and competition for shares of the TAC.

Herman Savikko

Competition for GOA Pacific cod has increased for a variety of reasons, including increased market value of cod products, rationalization of other fisheries in the BSAI and GOA, increased participation by fishermen displaced from other fisheries, reduced Federal TACs, and Steller sea lion mitigation measures, including the A/B seasonal split of the TACs. The competition among sectors in the fishery may contribute to higher rates of bycatch, discards, and out-of-season incidental catch of Pacific cod. Participants in the fisheries who have made long-term investments and are dependent on the fisheries face uncertainty as a result of the competition for catch shares.



Catch of Pacific cod in the Federal fisheries in the GOA has declined substantially since 1995, and most of this decline is reflected in reduced trawl catch. Beginning in 1997, 15% of the ABC was allocated to the State waters fishery (current allocation is 25% in the Western and Central GOA).

RECENT ACTION

The Council took action in December 2009 on an amendment that divides the Western and Central Gulf of Alaska Pacific cod TACs among gear and operation types, based on historic dependency and use by each sector. Sector allocations have the potential to enhance stability in the fishery, reduce competition among sectors, and preserve the historic distribution of catch among sectors. In addition, establishing sector allocations may enable the Council to begin developing a series of management measures to address mitigation issues associated with Steller sea lion protection measures, and bycatch reduction.

The sector allocations recommended by the Council are based on historic catch of Pacific cod during 1995-2008 (Western GOA) and 2000-2008 (Central GOA). Since 1995, the proportion of catch harvested by the various sectors in the GOA Pacific cod fisheries has changed, in some cases substantially. In general, trawl catches have declined and pot catches have increased. This trend is particularly apparent in the Western GOA, and the time period selected as the basis for sector allocations in the Western GOA was intended to capture this shift.

Pacific Cod Sector Allocations

	Western GOA	Central GOA
Jig (off top of TAC)	1.0%	1.5%
Hook-and-line CP	19.8%	5.1%
Hook-and-line CV <50 ft	1.4%*	14.6%
Hook-and-line CV >=50 ft		6.7%
Pot CV/CP	38.0%	27.8%
Trawl CP	2.4%	4.2%
Trawl CV	38.4%	41.6%

* Single hook-and-line CV sector in WGOA

The Council's action also creates additional entry-level opportunities for jig vessels. During recent years, less than 1% of the Western and Central GOA TACs were harvested by jig vessels, but few jig vessels elected to participate in the federal Pacific cod fisheries. The federal A and B seasons currently occur during winter and fall months when inclement weather conditions may limit participation by smaller vessels. The Council's action gives the jig sector an initial allocation of 1% of the Central GOA TAC and 1.5% of the Western GOA TAC, with a stairstep provision to increase the jig allocation in 1% increments if the allocation is fully harvested. In addition, the jig B season will begin on June 10, instead of on September 1 to allow vessels to fish during months with more favorable weather conditions, which may increase the likelihood that the jig allocation will be fully harvested.

The Council's action also includes several provisions to protect historic processing and community delivery patterns in the GOA groundfish fisheries. These provisions supersede the 90%/10% inshore/offshore processing allocations. Motherships will be allowed to process up to 2% of the Western GOA Pacific cod TAC, but will be prohibited from processing groundfish in the Central GOA. In addition, a new category of floating processors may operate in more than one geographic location, but may not harvest groundfish in the same year. These platforms may process up to 3% of the respective Western and Central GOA Pacific cod TACs, provided that they operate within the municipal boundaries of Community Quota Entity (CQE) communities.


Diana Evans

Sideboards

SIDEBOARDS MAINTAIN HISTORIC BALANCE

With the advent of limited access privilege programs (LAPPs), or 'catch shares', in many of the North Pacific target fisheries over the last decade, sideboards have become a useful tool to preserve fair access to fishing opportunities between LAPP and non-LAPP participants. An advantage of a LAPP is that participants have increased flexibility to optimize their efficiency and plan when and where to fish. Because many LAPP participants fish in multiple target fisheries, however, the flexibility that allows them to change their fishing patterns could also give participants a competitive advantage in other fisheries. For example, prior to the development of the LAPP, two fisheries may have occurred during the same time period, and fishermen would have to choose which fishery to participate in. The flexibility of the LAPP frees up participants to expand their participation in the non-LAPP target fishery, to the detriment of those other fishermen dependant on the non-LAPP fishery. As a result, harvest limits, or "sideboards" in the non-LAPP fishery, may be placed on the LAPP participants to maintain the historic balance.

Sideboard limits allow LAPP participants to continue to fish in other target fisheries, up to the level of their historic participation. Sideboard limits are not an allocation, and LAPP participants are not guaranteed any catch in the other, non-LAPP target fisheries. They must still compete against other fishermen to catch fish before the total allowable catch (TAC) is harvested.

AMERICAN FISHERIES ACT

The American Fisheries Act (AFA) of 1998 established a LAPP for the BSAI pollock target fishery. AFA catcher processors and catcher vessels are not allowed to harvest more than their traditional catch levels in other BSAI and GOA groundfish fisheries, except catcher processors are prohibited from harvesting GOA groundfish. For both sectors, sideboard limits for groundfish are based on retained catch in the other fisheries from 1995-97. They are also restricted by halibut and crab prohibited species catch (PSC) sideboard limits, based on historic use for catcher processors, and proportion of aggregate retained groundfish catch for catcher vessels. Some AFA catcher vessels with relatively low BSAI pollock landings are exempt from certain sideboard limits, as they have a high economic dependence on BSAI Pacific cod or GOA groundfish fisheries. The implementation of the crab rationalization program superseded AFA crab sideboard limits for harvesters and processors, and Amendment 80 modified some groundfish sideboard calculations for AFA participants.

CRAB RATIONALIZATION

The Council's BSAI crab rationalization program was implemented in 2005. Because few vessels had participated in both the crab and groundfish fisheries, the Council only included sideboard limits for non-AFA vessels qualifying for the Bering Sea snow crab fishery. These vessels are subject to sideboard limits for GOA groundfish generally, and also specifically for GOA Pacific cod. GOA groundfish sideboard limits for non-AFA crab vessels are based on their proportion of GOA groundfish landings from 1996 to 2000. In addition, participation in the GOA Pacific cod fishery is restricted to vessels that landed

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Information on the details of limited access privilege programs and sideboard limits, www.alaskafisheries.noaa.gov/sustainablefisheries

FMP References

Sideboard regulations: 50 CFR 679.64 (AFA), 50 CFR 680.22 (crab rationalization), 50 CFR 679.82 (rockfish pilot program), 50 CFR 679.92 (Amendment 80), www.alaskafisheries.noaa.gov/regs/summary.htm

Mark Fina

more than 50 mt of GOA groundfish during the same period. Those vessels that had a low dependence on Bering Sea snow crab and a high dependence on GOA Pacific cod during the qualifying years are exempt from the GOA Pacific cod sideboard limits. Although not yet implemented, in October 2008, the Council modified this exemption for Pacific cod and added an exemption for the GOA pollock sideboard. The intent of this action is to exempt GOA Pacific cod and pollock dependent vessels that may been unduly prevented from participating in the GOA Pacific cod and pollock fisheries due to sideboard limits. The goal is to have these sideboard changes effective January 2011.

ROCKFISH PILOT PROGRAM

The Central GOA Rockfish Pilot Program was implemented in 2006, and includes a suite of GOA groundfish sideboard limits for catcher processors and catcher vessels. There are two broad categories of sideboards. The first sideboard category established catch limits, and are in effect only during the month of July. They are designed to restrict fishing during the historical month of the rockfish fishery, but allow eligible rockfish harvesters to participate in fisheries before and after that time period. Sideboard limits apply to harvest in other GOA rockfish fisheries (pelagic shelf rockfish, Pacific ocean perch, and northern rockfish) fisheries and halibut PSC (which limits participation in GOA flatfish fisheries).

In addition, there are also sideboards that prohibit catcher processors from directed fishing during the historic rockfish season. Catcher processors that elect to fish in the limited access fishery and have more than 5% of the sector's qualified catch of central GOA Pacific ocean perch may not participate in the GOA groundfish fisheries from July 1 until 90% of the Pacific ocean perch that is allocated to the limited access fishery has been harvested. Finally, catcher processors that opt-out of the rockfish pilot program altogether may only participate in a directed fishery the license holder has historically participated in during the first week of July in at least two of the years from 1996 to 2002.

AMENDMENT 80

Amendment 80, implemented in 2008, allocates BSAI yellowfin sole, flathead sole, rock sole, Atka mackerel, and Aleutian Islands Pacific ocean perch to the head and gut trawl catcher processor sector, and allows qualified vessels to form cooperatives. The program establishes GOA groundfish sideboard limits for pollock, Pacific cod, Pacific ocean perch, northern rockfish, and pelagic shelf rockfish, as well as GOA halibut PSC. GOA sideboard restrictions are based on historic participation during 1998-2004. In addition, participation in the GOA flatfish fishery is prohibited for vessels with less than 10 weeks of history in the GOA flatfish fisheries. One vessel is exempt from the GOA halibut PSC sideboard limits, having fished 80% of its weeks in the GOA flatfish fisheries from 2000 through 2003.

ON THE HORIZON

The Council is scheduled to take final action on Pacific cod sideboards for crab vessels in October 2010.

The Council is considering the following sideboard changes:

- Exempt non-AFA crab vessels from GOA Pacific cod sideboards from November 1st to the end of the fishing year if the B season Pacific cod in the western and central GOA directed fisheries will not be fully harvested


APICDA

Halibut Subsistence

AFFIRMING ALASKA NATIVE AND RURAL PRACTICES

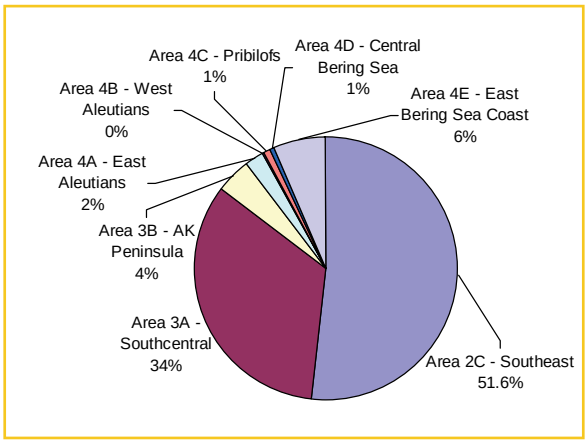
At the time of the implementation of the commercial halibut IFQ program in 1995, it became apparent that customary and traditional practices of taking halibut were not provided for in federal regulations. The North Pacific Council responded by adopting recommendations that defined halibut subsistence, eligibility, allowable gear, trade, bag limits, and cooperative agreements for data monitoring. The subsistence halibut fishery was authorized in May 2003. Qualified individuals are residents of 118 rural communities or members of 123 Alaska Native tribes which traditionally use halibut. Commercial sale of subsistence halibut is prohibited. Participants must comply with the following conditions:

- hold a Subsistence Halibut Registration Certificate (SHARC);
- use legal gear of up to 30 hooks per longline, hand line, rod and reel, or spear;
- participate only in customary and traditional trade; and
- not exceed a daily harvest limit of 20 halibut.

CUSTOMARY AND TRADITIONAL USES

In Alaska's coastal areas, subsistence halibut fisheries are local, non-commercial, customary and traditional food fisheries that date back thousands of years. The subsistence program enables eligible rural Alaska residents, both Native and non-Native, who depend upon the taking of halibut for food and who have limited alternative food resources, to continue to take halibut for that purpose. The program conforms to Federal statutes that provide the opportunity for the continued existence of these traditional cultures and economies.

There are two types of SHARCs: Rural Registration Certificates, which are valid for two years, and Alaska Native tribal Registration Certificates, which are valid for four years. In 2008, 11,565 SHARCs were issued. These were split about 63% to rural residents and 37% to Tribal members. The main purpose for SHARCs is to create a list of participants from whom to collect effort and harvest information. Harvest data has been collected from SHARC holders by surveys conducted by the Alaska Department of Fish and Game Subsistence Division under contract to NMFS.



Fall et al. 2007

Percentage of subsistence halibut harvest, by regulatory area fished, 2006.

An estimated 5,303 individuals (or 46% of those with SHARCs) participated in the subsistence fishery for halibut in 2008. The estimated harvest in 2008 was

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For More Information

Fall, J. and D. Koster. 2010. Subsistence Harvests of Pacific Halibut in Alaska, 2008. ADF&G Technical Paper No. 348. www.subsistence.adfg.state.ak.us/TechPap/TP348.pdf

Halibut subsistence fishery information www.alaskafisheries.noaa.gov/ram/subsistence/halibut.htm

References

Regulatory amendment to implement program; 68 FR 18145, effective May 15 2003.

Regulations at 50 CFR 300 Subpart E, 300.60 - 300.66, ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr;sid=0c90b23b3f038f3072c58896761df915;rgn=div5;view=text;node=50%3A7.0.2.11.1;idno=50;cc=ecfr

48,604 halibut, comprising 887,000 pounds (net weight). Of that total, 74 percent was harvested with setline gear and 26 percent with hand operated gear. The largest portion (52%) occurred in Area 2C (Southeast Alaska), followed by Area 3A (Southcentral Alaska) (38%). Subsistence harvests represent about 1% of the total halibut removals in Alaska in 2008. Subsistence fishers also harvested an estimated 14,346 rockfish and 3,479 lingcod in 2008, while fishing for halibut.

APICDA

REFINEMENTS TO THE PROGRAM

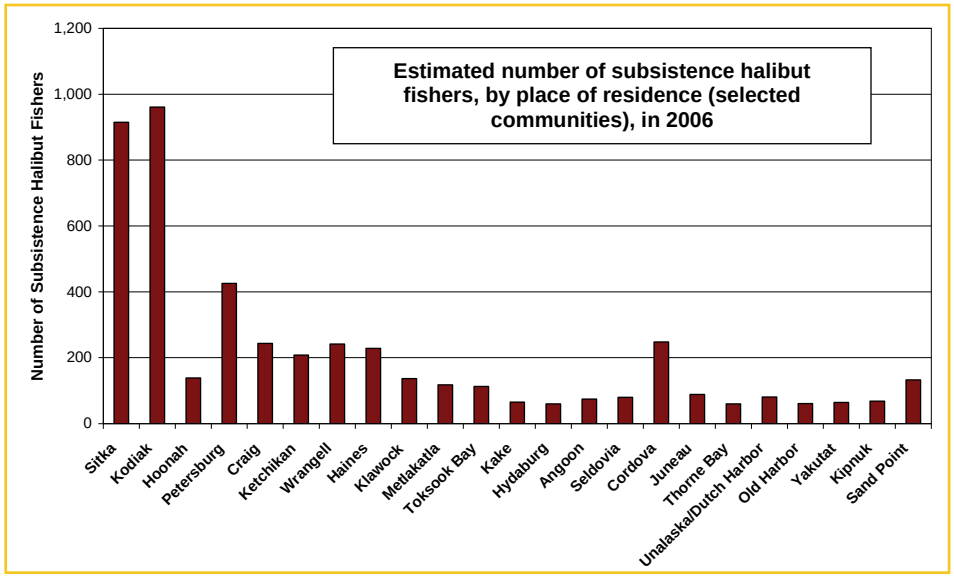
Since implementation, the Council has made several changes to the subsistence halibut program. In 2005, regulations provided for three new types of permits. Tribes and communities may apply for and receive:

- community harvest permits in Area 2C only,
- educational permits in Area 2C and Area 3A, and
- ceremonial permits in Area 2C and Area 3A.

In 2008, revised regulations:

- reduced the subsistence gear limits for Kodiak and added seasonal gear and vessel limits in the Sitka Sound Local Area Management Plan area;
- added Naukati to the list of eligible subsistence halibut communities;
- implemented a possession limit equal to two daily harvest and vessel limits to enhance enforcement;
- revised the definition of charter vessel;
- revised customary trade allowances; and
- allowed the use of special permits within non-subsistence use areas by eligible tribes.

In 2009, revised regulations redefined eligibility for rural residents because some applicants have been deemed ineligible because they do not reside within the legal boundaries of the 117 rural communities approved for inclusion in the program but otherwise conform to a rural subsistence lifestyle.



Fall et al. 2007

APICDA


Diana Evans

Groundfish Observer Program

MONITORING THE FOREIGN FLEET

The National Marine Fisheries Service (NMFS) began placing observers on foreign fishing vessels operating off the Pacific Northwest and Alaskan coasts in 1973, initially, only upon invitation by host countries. In the early years of the program, the primary purpose of observers was to determine incidental catch rates of Pacific halibut in groundfish catches and to verify catch statistics in the Japanese crab fishery. Observer coverage greatly expanded with the implementation of the Magnuson-Stevens Act in 1976, which mandated that foreign vessels carry observers. In 1978, U.S. fishermen began large-scale fishing for groundfish through joint ventures with foreign processing vessels, but by 1991, all foreign processing within Alaskan Federal waters was terminated. The domestic observer program emerged during those transition years.

EVOLVING TO A DOMESTIC PROGRAM

The current domestic observer program is authorized under Amendments 13 and 18 to the groundfish fishery management plans for the BSAI and GOA, respectively. Under this program, NMFS provides operational oversight, certification training, definition of observer sampling duties and methods, debriefing of observers, and management of the data. Vessel and processing plant owners contract directly with observer companies and pay for the cost of the observers, and the costs associated with managing the program are paid for by the Federal government.

The 1990 Observer Program established coverage levels in Federal regulations for most vessels and processors based on vessel length and amount of groundfish processed, respectively. Coverage levels have been increased to implement certain limited access programs with increased monitoring needs, such as the Western Alaska Community Development Quota Program and the BSAI pollock and flatfish fisheries, but aside from these, coverage requirements for the groundfish fleets of the BSAI and GOA have remained largely unchanged.

Observer coverage in 2009

380 individual observers
267 vessels
19 processing facilities

35,681 total observer days

The North Pacific Groundfish Observer Program is the largest observer program in the United States. It is also one of only two observer programs that are primarily paid for by the fishing industry. The mission of the observer program is to provide the highest quality data to promote stewardship of the North Pacific living marine resources for the benefit of the nation. Data collected by the program are used for a wide variety of purposes including: stock assessment; monitoring groundfish quotas; monitoring the bycatch of groundfish and non-groundfish species; assessing the effects of the groundfish fishery on other living marine resources and their habitat; and assessing methods intended to improve the conservation and management of groundfish and other living marine resources.

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For More Information

History of Council's consideration of observer program restructuring, is available on the Council's website.

Observer program webpage at the NMFS Alaska Fisheries Science Center, www.afsc.noaa.gov/FMA/

FMP References

Observer Program regulatory changes: proposed Regulatory Amendment. Analysis available on the Council's website.

Diana Stram

General observer coverage requirements.

Vessels < 60 ft LOA (and halibut vessels)	None
Vessels ≥60 ft but <125 ft LOA	30% of fishing time
Vessels ≥125 ft LOA	100% of fishing time
Processing plants	100% of time
Dedicated access privilege programs	Additional coverage requirements

LOA = length overall

CHALLENGES AND CHANGES

In designing the domestic Observer Program in 1989, NMFS and the Council had limited options because the Magnuson-Stevens Act provided no authority to charge the domestic industry fees to pay for the cost of observers, and Congress provided no funds to cover the cost of observers (which is still the case today). The need for observers and the data they provide was sufficiently critical that the Council and NMFS proceeded with Observer Program regulations under Amendments 13/18. The regulations establishing coverage requirements and requiring vessels and processors to contract for observer services were considered "interim" at the time. Efforts to change the existing service delivery model for the program have been unsuccessful as of yet for various reasons, and the "interim" Observer Program has since been extended indefinitely.

Concerns with the existing program arise from the inability of NMFS to decide when and where observers should be deployed, inflexible coverage levels established in regulation, disproportionate cost issues among the various fishing fleets, and the difficulty to respond to evolving data and management needs in individual fisheries. In the past several years, the Council and NMFS have renewed efforts to develop a new system for observer funding and deployment. In general, the program is to be restructured such that NMFS would contract directly with observer providers for observer coverage, and place observers on vessels and in processing plants when determined necessary. The intent is to fund the program through a fee system authorized by the Magnuson-Stevens Act and/or direct Federal funding.

As recently as June 2006, options for a restructured program were before the Council, but the existing program was ultimately maintained, given that 1) new statutory authorization was necessary to assess different fees against different fisheries or fishery sectors, as proposed in the analysis; and 2) there was uncertainty in the estimate of costs resulting from a change to a fee-based system due to the applicability of the Service Contract Act and Fair Labor Standards Act with regard to observer compensation issues. The Council indicated its intent to reconsider the amendment when these issues were resolved.

The 2006 reauthorization of the MSA provides new flexibility for the Council to establish a system of fees which may vary by fishery, management area, or observer coverage level, to pay for the cost of observers. In December 2008, staff prepared a discussion paper that estimated observer labor costs under a new service delivery model based on some relatively safe assumptions. In addition, the MSA stipulates the maximum percent ex-vessel value based fee that industry may be charged for deploying observers (2%). Upon review of the discussion paper, the Council initiated a new amendment package to restructure the observer program for the groundfish and commercial halibut sectors.

ON THE HORIZON

The Council has reviewed two iterations of an agency implementation plan for restructuring the observer program, in late 2009 and early 2010. The Council is scheduled to take final action to restructure the observer program at its October 2010 meeting.


Diana Evans

Vessel Monitoring Systems

A MONITORING TOOL THAT PROVIDES MANY BENEFITS

A Vessel Monitoring System (VMS) combines a global positioning system unit and a radio, and sends periodic signals to overhead satellites so the location of the vessel carrying it can be tracked. Benefits of VMS coverage include:

- **Enforcement**: Knowledge about the location of the fleet can make it easier for the Coast Guard to enforce a wide range of safety and fishery regulations.
- **Inseason management**: VMS is used by inseason managers to determine when to open and close fisheries by providing information on levels of effort in particular areas at particular times.
- **Safety**: The Coast Guard is using VMS in search and rescue efforts, because VMS can provide location information quicker than Emergency Position Indicating Radio Beacons (EPIRBs) when distress calls come in. Additionally, VMS provides the Coast Guard with locations of nearby vessels that can assist more quickly.
- **Scientific information**: Spatial data on fishing effort is important for evaluating impacts of fishing and changes to fishery regulations. VMS information also supplements observer reports, particularly on smaller vessels with limited or no observer coverage.
- **Other benefits:** Vessel operators, family, and owners benefit from their private use of VMS systems by remotely monitoring vessel locations.

The average cost of acquiring a VMS unit is estimated to be about $2,100, which includes purchase, shipping, installation, and initialization costs with the National Marine Fisheries Service. Annual operation costs run approximately $190 per vessel, which covers costs of transmission, maintenance, and repairs.

REQUIRED ONE FISHERY AT A TIME

Over time, the Council has adopted VMS requirements for different fisheries to meet specific objectives. The following is a brief timeline of when VMS requirements became effective.

2000 – Required for vessels in Atka mackerel fishery (Steller sea lion critical habitat protection).
2002 – Required for federally permitted vessels fishing cod, pollock and Atka mackerel (Steller sea lion protection).
2003 – Authorized for halibut fishery to allow exemption from check-in requirements in Area 4.
2005 – Required for vessels fishing in the BSAI crab rationalization program.
2006 – Required on all federally permitted vessels in the Aleutian Islands, and bottom-tending gear vessels in the GOA (essential fish habitat conservation).
2007 – Required for vessels participating in the Central GOA Rockfish Pilot Program. Authorized in the sablefish fishery as an alternative to the clearance requirement.
2008 – Required for vessels in the Amendment 80 sector.

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For More Information

VMS frequently asked questions on NOAA Fisheries Office of Law Enforcement webpage, www.nmfs.noaa.gov/ole/ak_faqs.html

FMP References

Final rule to exempt vessels using dinglebar gear from VMS requirements. www.fakr.noaa.gov/frules/74fr3446.pdf

Schematic of how VMS works.

COVERAGE BY AREA

Overall, a significant portion of the vessels fishing for groundfish and crabs off Alaska is currently required to carry VMS. A summary of the requirements and affected fleets, by area, is provided below.

Aleutian Islands: VMS is required on all vessels with a federal fishing permit, regardless of vessel size, fishery, or gear type, even if operating in state waters.

Gulf of Alaska: VMS is required on any federally-permitted vessel using mobile bottom contact gear (i.e, bottom trawls, dinglebar gear, or scallop dredges), and on vessels that target pollock or Pacific cod (there is no directed Atka mackerel fishery in GOA) using pelagic trawls, bottom trawls, longlines, or pots (jig gear is exempted), and on vessels participating in the central GOA rockfish cooperative program. In other words, VMS is required on all trawlers as well as the bigger longline and pot vessels in the GOA. For the most part, the only federally-permitted vessels that do not have VMS are some longliners targeting halibut or sablefish, and smaller vessels using jig gear to catch Pacific cod. Of course, there are other vessels that fish in state waters only, or that target salmon or other state-managed fisheries which do not require VMS.

Bering Sea: VMS is required on vessels that target pollock, Atka mackerel, or Pacific cod using pelagic trawls, bottom trawls, longlines, or pots (jig gear is exempted), as well as vessels in the Amendment 80 sector. This covers nearly all of the Bering Sea groundfish fleet, with the exception of the local halibut fleet (mostly community development quota fisheries); and a couple of vessels using jig gear to catch Pacific cod. VMS is also required on vessels fishing for crab species covered under the crab rationalization program. Vessels fishing for non-groundfish species (e.g., salmon) do not need VMS.

CHALLENGES AND CHANGES

Diana Evans

In February 2007, the Council reviewed an initial draft of a comprehensive VMS program that would greatly increase the number of commercial fishing vessels operating in Federal waters off Alaska which would be required to carry a transmitting VMS. After much deliberation, the Council decided to postpone indefinitely any further work on a comprehensive VMS program. The Council noted that other tools may be available to address specific problems or enforcement needs for specific circumstances, and a 'one-size-fits-all' solution may not be optimal.

In June 2008, the Council took final action to exempt vessels using dinglebar gear from VMS requirements. The VMS requirement for this fishery was originally implemented to assist with monitoring of the habitat closure areas in Southeast Alaska, but given the distribution of fishing effort relative to the corals, and the relative costs to this small fleet, this requirement was not necessary.

ON THE HORIZON

No changes to VMS requirements are currently being considered.


NOAA Fisheries

Research Priorities

COUNCILS PROVIDE RESEARCH RECOMMENDATIONS

The Magnuson-Stevens Act requires regional fishery management councils to develop, in conjunction with their Scientific and Statistical Committee (SSC), 5-year research priorities for fisheries, fisheries interactions, habitats, and other areas of research that are necessary for management purposes. These priorities are to be submitted to the Secretary of Commerce and the regional science centers of the National Marine Fisheries Service (NMFS) for their consideration in developing research priorities and budgets for the region of the Council.

At each October meeting, the Council develops a list of research priorities, based on input from the Plan Teams and recommendations from the SSC. These priorities are then disseminated to the Secretary and NMFS, as well as to the North Pacific Research Board, various universities, the US Coast Guard, Alaska Department of Fish and Game, and other entities likely to conduct or fund this research. The following is a summary of the immediate research needs adopted by the Council in 2009.

FISHERIES RESEARCH PRIORITIES

Stock Assessments: The highest priority is develop a size-based stock assessment model of Tanner crab, in order to provide appropriate scenarios for evaluating and selecting a rebuilding strategy. There is also a need for improved understanding on the post-release mortality rate of discarded crab from directed and non-directed crab pot fisheries and principal groundfish (trawl, pot and hook and line) fisheries. The magnitude of post-release mortality is an essential parameter used in the determination of total annual catch used to evaluate overfishing and in stock assessment and projection modeling

Fishery Performance and Monitoring: A pressing issue is why stocks have declined and failed to recover as anticipated (e.g., Pribilof Island blue king crab, Adak red king crab). Research into all life history components is needed to identify population bottlenecks, an aspect that is critically needed to develop and implement rebuilding plans. We also need to continue efforts to design and implement an improved observer delivery program that allows accurate and precise estimation of the catch by season and sector, including expansion of the program to previously unobserved vessels. Improvements are needed in in-season catch accounting for crab in non-directed fisheries with high incidental catch rates. There is also a need to improve species identification in catches by both processors and observers for priority species within species complexes. Methods that quantify and correct for misidentifications are desired.

Fishery Management: Analyses are needed of the magnitude and distribution of economic effects of salmon avoidance measures for the Bering Sea pollock fishery. In this case, it is important to understand the ability of pollock harvesters to adapt their behavior to avoid Chinook and "other" salmon PSCs, under various economic and environmental conditions and incentive mechanisms. An evaluation is needed of economic effects from the recently adopted crab rationalization program on Gulf of Alaska coastal communities, including how the impacts are distributed among communities and economic sectors; conducting qualitative research to assess changes in community participation and effort in fisheries; and estimating net economic benefits.

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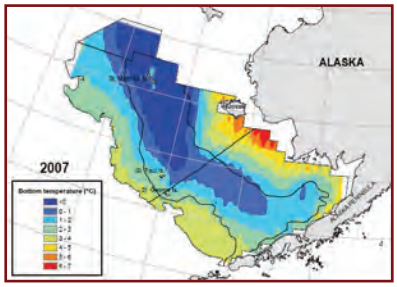
Alaska Fisheries Science Center webpage, www.afsc.noaa.gov/

North Pacific Research Board webpage, www.nprb.org/

FMP References

The Council research priorities for 2009 are available on the Council's website.

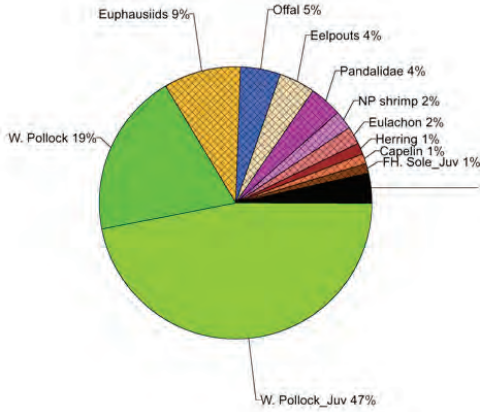


Alaska Fisheries Science Center

Sea bottom temperature profile from NMFS surveys, 2007.

FISHERIES INTERACTIONS RESEARCH PRIORITIES

There is a need for studies of localized fishery-protected species interactions. Whereas global fishery control rules may generally prevent overfishing on a broad regional basis, non-random patterns of fishing may cause high rates of removals in local areas important to apex predators, such as Steller sea lions, ice seals, northern fur seals, spectacled eider, Steller's eider, and short-tailed albatross. More studies are needed to fully evaluate potential local effects of fishing on other components of the ecosystem (e.g., marine mammals, seabirds, and the impact on benthic habitat and fauna) by bottom contact gear. Further research is needed on gear modifications and fishing practices for reducing bycatch, particularly of PSC species (e.g., salmon).



HABITAT RESEARCH PRIORITIES

There is need to evaluate habitats of particular concern. For example, information is needed to assess whether Bering Sea canyons are habitats of particular concern, by assessing the distribution and prevalence of coral and sponge habitat, and comparing marine communities within and above the canyon areas, including mid-level and apex predators (such as, short-tailed albatrosses) to neighboring shelf/slope ecosystems. Additionally, there is a need to assess the extent, distribution, and abundance of important skate nursery areas in the EBS, to evaluate the need for designation of new HAPCs.

There is also a need for a baseline habitat assessment. Dynamic ecosystem and environmental changes in the northern Bering Sea and Arctic are occurring on a pace not observed in recorded time. Given the potential for fishery expansion into the northern Bering Sea, as well as considerations associated with the new FMP for the Arctic, assessment of the current baseline conditions is imperative. This effort, while of great scientific importance, should not supplant the regular surveys in the BSAI and GOA, which are of critical importance to science and management.

ON THE HORIZON

In October, the Council will comprehensively review its research needs and will revise the 5-year priorities as necessary.

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