Management Context

The North Pacific Region includes the fisheries in the Exclusive Economic Zone off of the state of Alaska. Federal fisheries in this region are managed by the North Pacific Fishery Management Council (NPFMC) and NOAA Fisheries (NMFS) under six fishery management plans (FMPs).

North Pacific Fishery Management Plans

1. Bering Sea/Aleutian Islands (BSAI) Groundfish
2. Gulf of Alaska (GOA) Groundfish
3. BSAI King and Tanner Crabs
4. Alaska Scallop Fishery
5. Salmon in the EEZ
6. Arctic

Of the stocks or stock complexes covered in these fishery management plans, none are currently listed as overfished. No stocks in this region are currently subject to overfishing. The North Pacific Region has seven catch share programs (a type of market-based management), more than any other region. These are the: 1) Western Alaska community development quota program; 2) Pacific halibut and sablefish individual fishing quota program; 3) Bering Sea pollock cooperative; 4) Alaska weathervane scallop cooperative; 5) Bering Sea king and tanner crab (crab rationalization) program that includes both an individual fishing quota program and a fishing cooperative; 6) Central Gulf of Alaska rockfish pilot sector program; and 7) Bering Sea groundfish (non-pollock) cooperative. The landings revenues for these programs totaled almost $798 million in 2009, which exceeds the total landings revenue of any other state.

A particularly interesting management measure is the western Alaska Community Development Quota (CDQ) program, which is unique to Alaska. This program was originally implemented in 1992 as part of a restructuring of the Bering Sea/Aleutian Islands (BSAI) groundfish fishery. Under this program, a percentage of the total allowable catch for groundfish, prohibited species, halibut, and crab is apportioned to the coastal western Alaskan native communities. The purpose of the program is to provide western Alaskan communities the opportunity to participate and invest in BSAI fisheries, to support economic development in western Alaska, to alleviate poverty and provide economic and social benefits for residents of western Alaska, and to achieve sustainable and diversified local economies in western Alaska.

Annual CDQ allocations provide a revenue stream for CDQ groups through various channels, including the direct catch and sale of some species and the leasing of quota to various harvesting partners. These communities participate in the CDQ Program through six non-profit corporations (CDQ groups), which manage and administer the CDQ allocations, investments, and economic development projects. CDQ groups use the revenue derived from the harvest of their fisheries allocations to fund economic development activities and provide employment opportunities. In 2009, 180 million pounds of pollock were caught under the BSAI CDQ program, with a value of approximately $35 million.

Commercial Fisheries

North Pacific fishermen earned over $1.3 billion from their commercial harvest (4.1 billion pounds) in 2009. Landings revenue was dominated by salmon ($345 million), walleye pollock ($308 million), crab ($180 million), and Pacific halibut ($135 million). Walleye pollock contributed the most to landings in 2009, accounting for 46% of total landings (1.9 billion pounds) and 23% of landings revenue, with an average annual price of $0.16 per pound. In contrast, salmon accounted for 17% of total landings (671 million pounds) and generated 26% of landings revenue, with an average annual price of $0.51 per pound in 2009.

The North Pacific groundfish fishery is different from most other fisheries in the nation in that a large portion of the fishery is processed at sea and, therefore, no landings revenues are reported. The landings revenue for the species landed and processed at sea are estimated by using prices obtained from the shore-side sector. These species include Pacific cod, flatfish, atka mackerel, walleye pollock, rockfish, and sablefish.

When data from the shore-side sector are inadequate, historical information about the relationship between the ex-vessel price and the wholesale price of finished products is used to estimate ex-vessel prices and revenue for portions of the fishery mostly processed at sea.

Economic Impacts[1]

Alaska's seafood industry generated $3.3 billion in sales impacts, $1.4 billion in income impacts, and over 44,000 jobs in 2009. Seafood processing and dealer operations contributed 26% to in-state sales for Alaskan businesses, with over $844 million generated in 2009. The commercial harvester sector generated more impacts than any other sector with approximately 70% of total impacts. The importer sector consisted of less than one percent of the total impacts for the state in 2009.

Key North Pacific Commercial Species

- Atka mackerel
- Pacific cod
- Crab
- Flatfish
- Pacific halibut
- Pacific herring
- Rockfish
- Sablefish
- Salmon
- Walleye pollock

Landings Revenue

In 2009, landings revenue for finfish and shellfish totaled over $1.3 billion, a 17% increase from total revenue generated in 2000. When adjusting for inflation, real landings revenue decreased 0.2%. Landings revenue in 2009 was a 26% decrease relative to 2008 ($1.8 billion). Finfish and other catch contributed more than shellfish to the 2009 total, accounting for 86% or $1.1 billion. This was a 14% increase (2.5% decrease in real terms)

[1]The NMFS Commercial Fishing Industry Input/Output Model was used to generate the impact estimates (see NMFS Commercial Fishing & Seafood Industry Input/Output Model, available at: `www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf`)

from 2000 finfish revenue totals. Similarly, shellfish revenues increased 36% (17% increase in real terms) from $142 million in 2000 to $193 million in 2009. The largest changes in landings revenue between 2000 and 2009 were for Atka mackerel (214% increase), Pacific herring (204% increase), and flatfish (66% increase).

The two species or species groups that generated the highest landings revenue were salmon ($344 million) and walleye pollock ($308 million).

Commercial Fisheries Facts

Landings revenue

- On average, the ten key species or species groups account for 99% of total revenue, ($1.3 billion) generated in the North Pacific Region.
- Walleye pollock contributed more than any other species or species group, averaging $371 million in landings revenue from 2000 to 2009.
- Atka mackerel had the largest annual increase in landings revenue over the 10 year time period, increasing 122% from $9.5 million in 2000 to $21 million in 2001.
- Pacific cod had the largest annual decrease in landings revenue over the 10 year time period, decreasing 56% from $275 million in 2008 to $121 million in 2009.

Landings

- Key species or species groups contributed an average of 99% annually to total landings between 2000 and 2009.
- Walleye pollock, contributed the most to landings in the region, averaging 3 billion pounds from 2000 to 2009.
- Flatfish had the largest annual increase in landings over the 10 year time period, increasing 42% from 423 million in 2007 pounds to 599 million pounds in 2008.
- Atka mackerel had the largest annual decrease in landings over the 10 year time period, decreasing 34% from 126 million pounds in 2001 to 83 million pounds in 2002.

Prices

- Sablefish had the highest average annual ex-vessel price per pound ($2.47) over the time period, followed by crab ($2.42), and Pacific halibut ($2.33).
- Walleye pollock had the lowest average annual ex-vessel price per pound ($0.13) over the time period, followed by Atka mackerel ($0.14), and flatfish ($0.15).
- The largest annual increase in annual ex-vessel price during the 10 year period was for Pacific herring, increasing 136% from $0.09 per pound in 2006 to $0.22 in 2007.
- Pacific cod had the largest annual decrease in ex-vessel price over the 10 year time period, decreasing 56% from $0.56 per pound in 2008 to $0.25 in 2009.

In terms of key species or species groups, walleye pollock landings contributed the most to landings during the 10 year period, accounting for 46% of total landings in 2009 (1.9 billion pounds). Landings of salmon (671 million pounds), flatfish (506 million pounds), and Pacific cod (491 million pounds) also significantly contributed to the total landings.

Relative to 2000, landings of crab, flatfish, and Atka mackerel in 2009 increased more than any other key species or group, increasing 71%, 59.9%, and 59.6% respectively. In contrast, the largest decreases between 2000 and 2009 were experienced by walleye pollock (29%) and sablefish (23%).

Landings

In 2009, North Pacific commercial fishermen landed over 4.1 billion pounds of finfish and shellfish, a 9.1% decrease from 2000 totals. Finfish and catch other than shellfish accounted for 98% of this total (4 billion) and decreased 10% from 2000 (4.4 billion pounds) and decreased 10% from 2008 (4.4 billion pounds). Shellfish landings in 2009 increased 66% from 57 million pounds in 2000 to 95 million pounds in 2009. Between 2008 and 2009, shellfish landings decreased 9%. Overall, an average of 5 billion pounds were landed annually in the North Pacific from 2000 to 2009, ranging from a low of 4.1 billion pounds (2009) to a high of 5.7 billion pounds (2005).

Prices

In all, 2009 ex-vessel prices per pound for six of the key species and species groups were above their average annual price for the 10 year time period. When comparing 2009 ex-vessel prices to those in 2000 the largest changes occurred in Pacific herring (137% increase, 103% increase in real terms), Atka mackerel (96% increase, 68% increase in real terms), walleye pollock (43% increase, 22% increase in real terms), and sablefish (31% increase, 12% increase in real terms). Relative to ex-vessel prices in 2008 the largest changes in the ex-vessel values were for Pacific cod (56% decrease, 56% decrease in real terms), Pacific halibut (28% decrease, 28% decrease in real terms), Pacific herring (23% increase, 24% increase in real terms), and walleye pollock (18% decrease, 18% decrease in real terms),

Recreational Fisheries

Recreational saltwater anglers spent approximately 914,000 days fishing in Alaska in 2009. These anglers numbered over 284,000, with 55% of them non-residents. Pacific halibut was the most caught species or species group, with approximately 761,000 harvested or released in 2009. Razor clam and coho salmon were also caught in large numbers, with 556,000 and 513,000 caught, respectively. Together, these three species accounted for 63% of total catch by saltwater anglers in the North Pacific Region.

Economic Impacts and Expenditures[1]

In 2009, approximately 5,300 jobs in the North Pacific were generated by recreational fishing activities and over $406 million was spent by saltwater anglers who fished in the region. Most of these employment impacts were generated by industries that provided services to anglers who fished from a for-hire boat (2,500) or a private boat (1,300). These fishing trip modes also generated the most in trip-related expenditures: $129 million for for-hire fishing trips (57% of total trip expenditures) and $86

[1]Expenditures and economic impacts from recreational fishing activities were generated using the NMFS Recreational Economic Impact Model (see Marine Angler Expenditures in the United States, 2006, available at: `http://www.st.nmfs.noaa.gov/st5/publication/AnglerExpenditureReport/AnglerExpendituresReport_ALL.pdf`)

million for private boat trips (38% of total trip expenditures). Over 75% of total trip-related expenditures in Alaska came from non-resident anglers.

Key North Pacific Recreational Species

- Chinook salmon
- Chum salmon
- Coho salmon
- Greenlings (lingcod)
- Pacific halibut
- Pink salmon
- Razor clam
- Rockfish
- Sockeye salmon

In addition to jobs generated by recreational fishing activities, other economic impacts include sales impacts and the contribution of recreational fishing activities to gross domestic product (value added impacts). For-hire fishing trips generated $196 million in sales (59% of total trip-related sales) and $109 million in value added impacts (59% of total trip-related value added impacts) in 2009. Private boat trips contributed $121 million in sales (36%) and $65 million (36%) in value added impacts. Shore-based fishing trips contributed $18 million in trip-related sales (5.3%) and $9.7 million in trip-related value added impacts (5.3%).

Anglers spent over $178 million on durable equipment in 2009, contributing 44% to total expenditures in the region (trip and durable equipment combined). Most of this was spent on boat expenses ($59 million). Expenditures related to vehicles were $24 million; second home expenses, $31 million; other equipment, $31 million; and fishing tackle, $33 million.

Economic impacts from durable equipment expenditures in 2009 include over 1,400 jobs, $135 million in sales impacts, and $92 million in value added impacts. These impacts represented 27% of the employment impacts, 29% of the sales impacts, 37% of the income impacts, and 33% of the value added impacts generated by recreational fishing activities.

Participation

In 2009, there were 284,000 recreational saltwater anglers who fished in Alaska. This was an 1.3% increase from 2000 (281,000 anglers) and a 8% decrease from 2008 (309,000 anglers). Recreational fishermen in Alaska are categorized as either a resident of Alaska or a non-resident. In 2009, non-resident anglers made up 55% of total anglers (158,000 anglers). There was no change in number of anglers from 2000 and a 17% decrease from 2008 (190,000 anglers). In terms of resident anglers, there were 127,000 resident anglers who fished in the North Pacific Region in 2009, which was a 3.2% increase from 2000 and a 6.4% increase from 2008.

Days Fished[1]

Anglers who fished in Alaska spent approximately 914,000 fishing in saltwater in 2009. This was a 6.6% decrease from the 978,000 days spent fishing in 2000. From 2008 to 2009, there was a 2.2% decrease in the number of days fished (935,000 days) in 2008.

Recreational Fish Facts

Participation

- An average of 304,000 saltwater anglers fished in North Pacific annually from 2000 to 2009.
- In 2009, residents made up 45% of total anglers in this region and averaged 41% of total anglers annually over the 10 year time period.
- The largest annual increase in saltwater anglers was a 14% increase in Alaska resident anglers from 2002 to 2003.
- The largest annual decrease in saltwater anglers was a 17% decrease in the number of non-resident anglers from 2008 to 2009.

Fishing trips

- On average, recreational saltwater fishermen spent 949,000 days fishing annually in Alaska from 2000 to 2009.
- The largest annual increase in total days fished in saltwater was 16% from 868,000 days in 2003 to 1 million in 2004. The largest annual decreases in total days fished was an 11% decrease from 1.1 million days in 2007 to 935,000 days in 2008.

Harvest and release

- Pacific halibut was the most commonly caught key species or species group, averaging 781,000 fish caught over the 10 year time period. Of these, 42% were released rather than harvested.
- Of the nine commonly caught key species or species groups five were released more often than harvested over this time period. The species or species group that was most commonly released was chum salmon (68% released on average).
- Sockeye salmon had the largest annual increase in catch, increasing 91% from 2006 to 2007. Pink salmon had the largest annual decrease in catch, decreasing 53% from 2005 to 2006.

Harvest and Release

Of Alaska's key species and species groups, Pacific halibut, razor clam, and coho salmon were most frequently caught by recreational fishermen. In 2009, 761,000 Pacific halibut, 556,000 razor clam, and 513,000 coho salmon were caught by anglers in Alaska. Razor clam (100% harvested), coho salmon (82%), and sockeye salmon (78%) were more often harvested than released, while pink salmon were more often released (66%).

Between 2000 and 2009, seven of the North Pacific's key species or groups experienced increases in catch totals. Those with the largest increases include: rockfish (20%), greenlings (lingcod) (15%), and sockeye salmon (12%). Over the same time period, decreases were experienced by chum salmon (29%) and razor clam (37%).

In the short term, the largest increases in catch were experienced by chum salmon and pink salmon from 2008 to 2009. Decreases

[1] In Alaska, information related to how often a recreational fisherman fishes is collected in terms of the number of days spent fishing rather than the number of fishing trips taken.

over the same time period occurred in four species or species groups, the largest of which were experienced by greenlings (lingcod) (23%) and Pacific halibut (13%). The dramatic changes in pink salmon catch between 2008 and 2009 can at least be partially attributed to the biannual biological cycle.

Marine Economy[1]

In Alaska, approximately 248,000 full- and part-time employees were employed by 20,000 establishments in 2008. Annual payroll totaled $12 billion, employee compensation totaled $21 billion and gross state product totaled $49 billion. Between 2003 and 2008 the commercial fishing location quotient (CFLQ[2]) for Alaska experienced a 12% increase.

Seafood Sales and Processing

The number of nonemployer firms, businesses that have no paid employees and are subject to federal income tax, engaged in seafood product preparation and packaging increased 63% from 19 firms in 2000 to 31 firms in 2008. Despite this, annual receipts decreased 18% to $1.5 million in 2008 (a 30% decrease in real terms). When considering employer establishments engaged in seafood product preparation and packaging, the number of establishments increased 8% from 2000 to 2008 to 122 establishments and employee numbers increased 19% from 2003 to 2008 to 7,707 full- and part-time employees. Similarly, annual payroll increased 24% (a 0.5% decrease in real terms) from 2000 to 2008 to $255 million.

There were 57 seafood wholesale establishments in 2008. This was a 28% decrease relative to 2000 levels. Employee numbers decreased 47% to 143 workers, while annual payroll decreased 25% (a 36% decrease in real terms) to $8.4 million in 2008.

There were 13 nonemployer seafood retail firms with an annual receipt total of $1.4 million in 2008. From 2000 to 2008, the number of nonemployer firms increased 86% and annual receipts increased 338%. Likewise, the number of employer establishments engaged in seafood retail activities increased 12% from 8 establishments in 2000 to 9 establishments in 2008. Employee and annual payroll information for this industry was not available for 2007 due to confidentiality restrictions.

Transport, Support, and Marine Operations

Data were largely unavailable for industries in this sector. When looking at available data, coastal and Great Lakes freight transportation had the highest number of establishments with 49 establishments in 2008. This was a 96% increase relative to 2000 totals.

[1] Information for 2008 is reported in this section; 2009 data were not available for this report.
[2] The CFLQ for the U.S. is 1.0. This provides a national baseline from which state CFLQs can be compared.