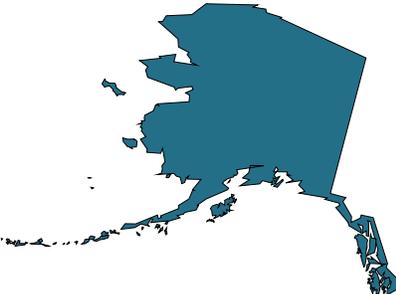


# North Pacific

- Alaska



## Management Context

The North Pacific Region includes the state of Alaska. Federal fisheries in this region are managed by the North Pacific Fishery Management Council (NPFMC) and the National Marine Fisheries Service under one of four fishery management plans (FMPs). Catch limits for Pacific halibut are established by the International Pacific Halibut Commission and are implemented by the NPFMC. Salmon fishing in federal waters is limited to a few vessels using troll gear and management of salmon fisheries is deferred to the Alaska Department of Fish and Game.

### 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

Of the species or species groups managed under these FMPs, blue king crab from the Pribilof Islands is currently characterized as overfished. No stocks in this region are currently subject to overfishing.

The North Pacific Region has eight catch share programs, more than any other region.<sup>1</sup> These are the: 1) Western Alaska community development quota (CDQ) program; 2) Pacific halibut and sablefish individual fishing quota (IFQ) program; 3) Pacific whiting cooperative; 4) Bering Sea pollock cooperative; 5) Alaska weathervane scallop cooperative; 6) Bering Sea king and tanner crab (crab rationalization) program that includes both an IFQ and a fishing cooperative; 7) Central Gulf of Alaska rockfish pilot sector program; and 8) Bering Sea groundfish (non-pollock) cooperative. The ex-vessel values for these programs totaled over \$766.1 million in 2007.

Ecolabels are another form of market-based management, encouraging fishermen to adopt harvest practices that are considered sustainable by an organization such as the Marine Stewardship Council (MSC).<sup>2</sup> The idea is that as the general public becomes more aware of issues related to the harvest of marine resources, consumers will be willing to pay higher prices for seafood carrying an ecolabel that indicates that the product was sustainably-caught. The Alaskan salmon, BSAI pollock, GOA pollock, North Pacific halibut, and North Pacific sablefish fisheries, as well as components of the BSAI Pacific cod fishery, have received certifications from the MSC.<sup>3</sup>

<sup>1</sup>Information about the ex-vessel values of these fisheries as well as the first year of implementation is available in the "U.S. Summary" found in this report.

<sup>2</sup>More information about the Marine Stewardship Council and its certification process is available at: <http://www.msc.org/track-a-fishery/certified>.

<sup>3</sup>It is yet unclear whether ecolabels are enough to entice consumers to purchase ecolabeled products over non-ecolabeled products. Other factors that may influence a consumer's purchasing decision include how much more an

## Commercial Fisheries

Alaska fishermen earned over \$1.5 billion from their commercial harvest (5.3 billion pounds) in 2007. Landings revenue was dominated by walleye pollock (\$383 million), salmon (\$348 million), Pacific halibut (\$217 million), and Pacific cod (\$210 million). Walleye pollock contributed the most to landings in 2007, accounting for roughly 58% of total landings (3.1 billion pounds) and 25% of landings revenue, with an average annual price of \$0.12 per pound. In contrast, salmon accounted for 16% of total landings (861,000 pounds) and generated 22% of landings revenue, with an average annual price of \$0.40 per pound in 2007.

### Key North Pacific Commercial Species

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

### Economic Impacts

Alaska's seafood industry generated \$3.3 billion in sales impacts, \$1.1 billion in income impacts, and over 43,000 jobs in 2007. Seafood processing and dealer operations contributed over 58% to in-state sales for Alaskan businesses with over \$1.9 billion generated in 2007. This sector also accounted for most of the income impacts in the North Pacific with over \$588 million generated, or 51% of the region's total income impacts. In terms of employment, the commercial harvest sector supported the most full- and part-time jobs: 21,000 jobs or 49% of the region's total job impacts.

### Landings Revenue

In 2007, ex-vessel revenue for finfish and shellfish totaled over \$1.5 billion, a 63% increase from total revenue generated in 1998. When adjusting for inflation, real ex-vessel revenues increased 36%. Ex-vessel revenue in 2007 was a 9.9% increase relative to 2006 (\$1.4 billion). Finfish and other catch contributed more than shellfish to this 2007 total, accounting for 88% or \$1.4 billion. This was an 86% increase from 1998 finfish revenue totals, a 56% increase in real terms. In contrast, shellfish revenues decreased 16% (-30% in real terms) from \$214 million in 1998 to \$181 million in 2007. A 72% decrease in shellfish landings from 1998-2007 likely contributed to this decrease in revenue.

When considering the contribution of key species and species groups to 2007 landings revenue, walleye pollock (\$383 million), salmon (\$348 million), Pacific halibut (\$217 million), and Pacific cod (\$210 million) generated the most revenue. The largest increases in

ecolabeled product costs and whether the fish species that is ecolabeled is itself a desirable seafood product relative to other available options. That is, an ecolabeled tilapia fillet may not be as desirable as a non-ecolabeled salmon fillet.

landings revenue between 1998 and 2007 were for Pacific halibut (218%), Atka mackerel (147%), and rockfish (126%). Of the key species and species groups in this region, only crab landings revenue declined, decreasing 17%, a 31% decrease in real terms.

#### Commercial Fish Facts

##### Landings revenue

- On average, key species or species groups accounted for 99% of total revenue generated in the North Pacific.
- Five of the key species (walleye pollock, salmon, crab, Pacific cod, and Pacific halibut) had average annual ex-vessel revenue in excess of \$140 million.
- Walleye pollock and salmon accounted for 48% of average annual total landings revenue.
- The largest annual increase in landings revenue during the 10 year period was 122% for Atka mackerel (2000-2001). The largest annual decrease was -50% for crab (1999-2000).

##### Landings

- On average, key species or species groups accounted for almost 100% of total landings in this region.
- Four of the key species (walleye pollock, salmon, Pacific cod, and flatfish) had average annual landings of >300 million pounds.
- Annual landings of walleye pollock averaged over 3 billion pounds during the 10 year period, contributing over 60% to total average annual landings.
- Salmon landings increased 36% from 2006-2007, the largest annual increase in the 10 year period. Crab landings decreased 75% from 1999-2000, the largest annual decrease.

##### Prices

- Crab (\$2.17), sablefish (\$2.06), and Pacific halibut (\$2.02) had the highest average annual prices per pound.
- Walleye pollock (\$0.11), Atka mackerel (\$0.12), Pacific herring (\$0.15), and flatfish (\$0.15) had the lowest average annual prices per pound.
- The largest annual price decrease was a 40% decrease in Pacific herring prices (2005-2006), only to be followed by a 136% increase the following year (2006-2007).

#### Landings

In 2007, North Pacific commercial fishermen landed over 5.3 billion pounds of finfish and shellfish, a 7.7% increase from 1998 totals. This was a 2.0% decrease from the 5.4 billion pounds landed in 2006. Finfish and other catch accounted for 99% of this total (5.2 billion pounds), a 12% increase from 1998 but a 2.0% decrease from 2006. Shellfish landings in 2007 decreased 72% from 278 million pounds in 1998 to 78 million pounds in 2007. Between 2006 and 2007, shellfish landings decreased 0.8%. Overall, an average of 5.1 billion pounds was landed annually in the North Pacific from 1998-2007, ranging from a low of 4.5 billion pounds (2000) to a high of 5.7 billion pounds (2005). On average, finfish contributed 98% annually to this total.

In terms of key species or species groups, walleye pollock landings contributed the most to landings during

the 10 year period, accounting for 58% of total landings in 2007 (3.1 billion pounds). Landings of salmon (861 million pounds), Pacific cod (488 million pounds), and flatfish (424 million pounds) were also a significant share of total landings.

Relative to 1998, landings of flatfish, rockfish, and salmon in 2007 increased more than any other key species or group, increasing 42%, 40%, and 38%, respectively. In contrast, crab landings declined significantly between 1998 and 2007, decreasing 74% from 270 million pounds to 71 million pounds. Pacific herring, Pacific cod, and sablefish landings also declined over this period, decreasing 23%, 17%, and 12%, respectively.

#### Prices

Overall, 2007 ex-vessel prices per pound for each of the key species and species groups were above their average annual price for the 10 year time period. This was true despite a 3.8% decrease in salmon prices (-20% in real terms) from \$0.42 per pound (1998) to \$0.40 per pound (2007). When comparing 2007 ex-vessel prices to those in 1998, Pacific halibut (\$3.23 per pound), crab (\$2.38), Pacific cod (\$0.43), and Atka mackerel (\$0.12) had the largest increases. These species or groups increased 236%, 217%, 160%, and 120%, respectively, relative to 1998 prices.

Relative to ex-vessel prices in 2006, Pacific herring (136%), crab (48%), Atka mackerel (23%), Pacific cod (20%), and Pacific halibut (16%) all had double-digit increases in 2007. Rockfish prices decreased 19% from 2006 prices. Small declines were observed for salmon (-7%), flatfish (-3%), sablefish (-2%), and walleye pollock (-1%).

#### Recreational Fishing

Recreational fishermen spent approximately 1.1 million days fishing in Alaska in 2007. These anglers numbered over 332,000 with 62% of them non-residents. Halibut was the most caught key species or species group with over 1.0 million harvested or released in 2007. Coho salmon and pink salmon were also caught in large numbers with 628,000 and 413,000 caught, respectively. Together, these key species accounted for 63% of fish caught by anglers in the North Pacific Region.

#### Key North Pacific Recreational Species

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

#### Economic Impacts and Expenditures

In 2007, approximately 5.4 million jobs in the North Pacific were related to recreational fishing activities and over \$442 million was spent by anglers who

fished in the region. Most of these jobs were related to industries that provided services to anglers who fished from a for-hire boat (2.0 million jobs) or a private boat (1.3 million jobs). These fishing trip modes also generated the most in trip-related expenditures: \$107 million for for-hire fishing trips (51% of total trip expenditures) and \$88 million for private boat trips (43% of total trip expenditures). Over 64% of total trip-related expenditures in Alaska came from non-resident anglers.

In addition to jobs related to 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 \$162 million in sales (53% of total trip-related sales) and \$90 million in value-added impacts (54% of total trip-related value-added impacts) in 2007. Private boat fishing activities contributed \$125 million in sales (41%) and \$67 million (41%) in value-added impacts. Shore-based fishing trips contributed \$17 million in trip-related sales (5.5%) and \$9.1 million in trip-related value-added impacts (5.5%).

Anglers spent over \$235 million on durable equipment in 2007, contributing 53% to total expenditures in the region (trip and durable equipment combined). Most of this was spent on boat or vehicle expenses, \$76 million and \$51 million, respectively. Expenditures related to second home expenses (\$37 million), other equipment (\$36 million), and fishing tackle (\$35 million) followed.

Economic impacts from durable equipment expenditures in 2007 include approximately 1.9 million jobs, \$178 million in sales impacts, and \$121 million in value-added impacts.

#### Participation

In 2007, there were 332,000 recreational anglers who fished in Alaska. This was an 18% increase from 1998 (281,000 anglers) and a 4.7% increase from 2006 (317,000 anglers). Recreational fishermen in Alaska are categorized as either a resident of Alaska or a non-resident. In 2007, non-resident anglers made up 62% of total anglers (205,000 anglers). This was a 32% increase from 1998 (155,000 anglers) and a 4.0% increase from 2006 (197,000 anglers). In terms of resident anglers, there were 127,000 resident anglers who fished in the North Pacific in 2007. This was a small increase from 1998 (0.8%) and 2006 (5.8%).

#### Days Fished<sup>4</sup>

Anglers who fished in Alaska spent approximately 1.1 million days fishing in 2007. This was a 49% increase from the 704,000 days spent fishing in 1998. From 2006-2007, there was a 12% increase in the number of days fished (941,000 days in 2006) but this increase was preceded by an 11% decrease in days fished (1.1 million days in 2005).

<sup>4</sup>In Alaska, information related to how often a recreational fishermen goes fishing is collected in terms of the number of days spent fishing rather than the number of fishing trips that were taken.

#### Recreational Fishing Facts

##### Participation

- Approximately 300,000 anglers fished in Alaska annually over the 1998-2007 time period.
- In Alaska, out-of-state residents made up 62% of total anglers in 2007 and averaged 59% of total anglers annually from 1998-2007.
- The largest annual increase in anglers was a 14% increase in Alaska resident anglers from 2002-2003. Resident anglers also experienced the largest annual decrease in participation, decreasing 6% from 1998-1999.

##### Days fished

- On average, recreational fishermen spent 927,000 days fishing annually in Alaska from 1998-2007.
- The largest annual increase in total days fished was 31% from 704,000 days fishing (1998) to 924,000 days fishing (1999). The largest annual decrease in total days fished was an 11% decrease from 1.1 million days fishing (2005) to 941,000 days fishing (2006).

##### Harvest and release

- Halibut was the most caught key species or group, averaging 738,000 fish annually over the 10 year period. Of these, 57% were harvested rather than released in 2007.
- On average, over 99% of razor clams were harvested rather than released by recreational fishermen annually. Other key species or groups that were more often harvested than released were coho salmon (81% harvested), sockeye salmon (60% harvested), and halibut (57% harvested).
- Sockeye salmon had the largest annual increase in catch, increasing 89% from 2006-2007. Pink salmon had the largest annual decrease in catch, decreasing 53% from 2005-2006.

#### Harvest and Release

Of Alaska's key species and species groups, halibut, coho salmon, and pink salmon were most often caught by recreational fishermen. In 2007, 1.0 million halibut, 628,000 coho salmon, and 413,000 pink salmon were caught by anglers in Alaska. Razor clams (100% harvested), coho salmon (81%), and sockeye salmon (60%) were most often harvested than released, while pink salmon was most often released (68% released).

Seven of the North Pacific's key species or groups had large increases in catch totals between 1998 and 2007: greenlings and lingcod (144% increase), rockfish (83%), pink salmon (62%), halibut (60%), chinook salmon (56%), coho salmon (56%), and sockeye salmon (51%). Only razor clam (45% decrease) and chum salmon (-13%) catch totals decreased.

Relative to 2006, other key species or groups with notable changes in catch totals include: sockeye salmon (89% increase), pink salmon (78%), razor clam (-20%), and chinook salmon (-0.5%). All other key species or groups experienced modest increases in catch totals. Pink salmon and sockeye salmon experienced large changes in their harvest or release totals from 2006-2007. Pink salmon harvest

increased 105% and sockeye salmon release increased 200% during this time.

### **Marine Economy<sup>5</sup>**

In Alaska, approximately 242,000 full- and part-time employees were employed by 20,000 establishments in 2006. Annual payroll totaled \$11 billion, employee compensation totaled \$19 billion, and gross domestic product by state totaled \$43 billion. Between 1998 and 2006, the largest changes were observed for gross state product (86% increase) and annual payroll (57%). Employee compensation (35% increase), employee numbers (23%), and establishment numbers (9.2%) also experienced modest increases. Relative to 2005 levels, each of these economic measures increased slightly in 2006, ranging from a 0.4% increase in establishment numbers to a 10% increase in annual payroll. The commercial fishing location quotient was not available for Alaska.

### ***Seafood Sales and Processing***

The number of nonemployer firms engaged in seafood product preparation and packaging increased 29% from 17 firms in 1998 to 22 firms in 2006. Despite this, annual receipts decreased 26% to \$1.1 million in 2006 (a 34% decrease in real terms). When considering employer establishments engaged in seafood product preparation and packaging, the number of establishments decreased 3.4% from 1998-2006 to 113 establishments and employee numbers decreased 20% from 1999-2006 to approximately 6,900 full- and part-time employees.<sup>6</sup> Annual payroll, on the other hand, increased 23% (15% in real terms) from 1999-2006 to \$246 million.

There were 77 seafood wholesale establishments in 2006. This was a 21% decrease relative to 1998 levels. Employee numbers also declined, decreasing 7% to 224 workers, while annual payroll increased 22% (8% in real terms) to \$8.5 million in 2006.

There were 12 nonemployer firms involved in seafood retail activities with an annual receipt total of \$649,000 in 2006. From 2000-2006, the number of nonemployer firms increased 71% and annual receipts increased 98%.<sup>7</sup> In contrast, the number of employer establishments engaged in seafood retail activities decreased 30% from 10 establishments in 1998 to 7 establishments in 2006. Employee and annual payroll information for this industry was not available for 2006.

### ***Transport, Support, and Marine Operations***

Data was largely unavailable for industries in this sector. When looking at available data, coastal and Great Lakes freight transportation industries had the

highest number of establishments with 46 establishments in 2006. This was a 77% increase relative to 1998 totals. Large changes in establishment numbers were also observed in industries engaged in port and harbor operations (100% increase) and ship and boat building (31% increase). There were 2 establishments engaged in port and harbor operations and 17 engaged in ship and boat building in 2006.

Marine cargo handling operations had the most complete information in this industry sector. With an annual payroll total of \$23 million, there were 11 establishments that employed 503 people in 2006. Between 1998 and 2006, establishment numbers decreased 21%, employee numbers decreased 4%, and annual payroll totals decreased 15% (-24% in real terms).

<sup>5</sup>Data for 2007 was unavailable for this report therefore 2006 information is reported in this section.

<sup>6</sup>Employee numbers and annual payroll information for 1998 was not available thus the 1999-2006 time period is discussed here.

<sup>7</sup>Information was not available for 1998 or 1999 thus the 2000-2006 time period is discussed here.