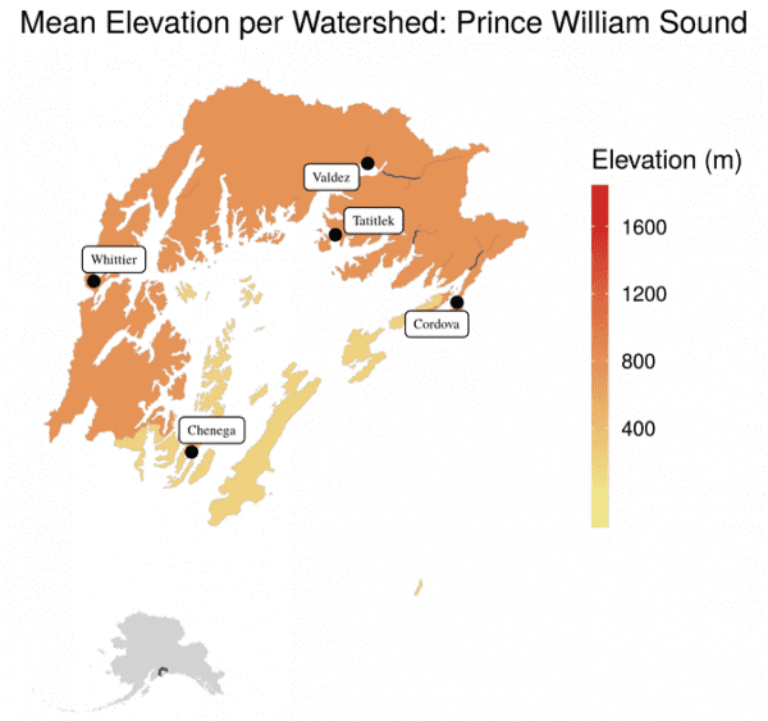
PRINCE WILLIAM SOUND

Geography

The Prince William Sound region covers approximately 20,000 square miles of ocean and land along the Southcentral coast. The Chugach Mountains border the east and north as the Kenai Mountains create the western boundary and multiple islands edge the region on the Gulf of Alaska (PWSEDD 2017). The second smallest region of Alaska, Prince William Sound is by far the wettest, experiencing nearly 1400 cm (45 feet) of precipitation per year. The region is a land of ice and glaciers with over twice the average number of glaciers per unit of land area compared to other regions of Alaska. Only two (Whittier and Valdez) of Prince William Sound's largest human communities are connected via road, whereas Chenga, Cordova, and Tatitlek residents travel by air or water. Pink salmon, chum salmon, and sockeye salmon fisheries are current mainstays of local communities with hatchery enhancement of these species (particularly pink salmon) a fundamental dynamic in the region.



Jared Kibele, Rachel Carlson, and Marie Johnson. 2018. Elevation per SASAP region and Hydrologic Unit (HUC8) boundary for Alaskan watersheds. Knowledge Network for Biocomplexity. doi:10.5063/F1D798QQ.

Early people and salmon systems

Prince William Sound, sometimes called the Chugach region, is home to Alutiiq (Sugpiaq) tribes and their geographic range stretches from west of Cordova to False Pass bordering that of the Ahtna Athabascan, the Eyak, the Dena'ina Athabascan, and Central Yup'ik peoples, as well as the Gulf of Alaska and the Bering Sea. The Alutiiq people have called this area home for at least 5,000 years.

The prehistoric economy was predominantly focused on sea mammals, followed by land mammals, birds, and shellfish (Heizer 1957). Subsistence ways of life in the region expanded throughout time to include the traditional gathering and sharing of fish, predominantly herring and salmon. Subsistence practices continue to provide intergenerational transfers of knowledge and cultural beliefs.

Credit: Alaska State Library, Ray Winthrop Moss Photo Collection (P11-100)

Changes in systems

The region has experienced much of the same waves of change and impacts on fishing ways of life as other regions in Alaska, including the aftermath of the 1964 earthquake, increased sport fishing, user group conflicts, balancing of mixed economies, and complex state and federal resource management. Prince William Sound hosts the terminus of the Trans-Alaska Pipeline System in Valdez in large part because of the deep-water and highly protected port that enabled development in the 1970s (Himes-Cornell et al. 2013). Here was the epicenter of the 1989 Exxon Valdez

Oil Spill (EVOS) disaster that leaked 11 million gallons directly into the Sound. The social and ecological impacts of it are still being dealt with today. Declining salmon returns as well as ex-vessel prices have caused ongoing challenges to regional residents and those who commercially fish the Sound (Miraglia 2002, Holen et al. 2011, Wooly 2002, Himes-Cornell et al. 2013).

EVOS had immediate and lasting disastrous impacts on communities in and beyond Prince William Sound and the subsequent damaged ecosystem resources and services generated significant losses, particularly so for Alaska Natives and commercial fishermen. Physiological stress resulting immediately from the spill presented as chronic for many residents and resource and livelihood loss were major contributes to the collective adverse sociocultural impacts. Overall, EVOS was more than an oil spill. Chronic ecosystem, resource, and sociocultural loss, stress, and unhealthy coping mechanisms from protracted litigation and loss of livelihoods are key themes of this monumental technological disaster. In its aftermath, local citizens organized and created a regional entity to monitor oil transportation to minimize the likelihood of future spills.

Most Cordova residents who experienced the spill reported to not expect Prince William Sound to rebound in their lifetimes, evident in the struggling herring population and beaches throughout the Sound where oil resides several feet below the surface. While full recovery from this disaster has been elusive, there are bright spots in the timeline as commercial salmon fisheries have had good seasons more recently and though few thought litigation achieved making this right, it is at least over. “At some point however, it seems that a ‘new normal’ will take hold and that both the old ways of life and the disaster will become part of the community’s legacy.” (Gill et al. 2016: 11)

Children of the Spills is an oral history project directed by Katie Gavenus of Homer, Alaska to document the how young people from “oiled communities were affected by such spills.” In 2011, Mike Mickelson of Cordova, born in 1984, explained initial and lingering spill impacts:

“The year after the spill we went out into the Sound, and I remember seeing the high tide mark that had oil in it. But how it really affected Cordova wasn’t just the physical changes to the environment, it was kind of the social changes that happened. A lot of people got depressed, you know, it was a lot of men especially. There was just a bad scene, and nobody would ever talk about it. It was just sort of taboo to talk about the Oil Spill, and, I mean, it still is, for that matter. But, as a young person, I wasn’t really encouraged to think that there would be a brighter future or to think that Exxon ever would pay off or that there would ever be any sort of closure… It’s almost like having someone or some family of people you know die, and there was just no conflict resolution. And so, I guess probably counseling would have been a great idea for the

whole town. It does take a long time. We're by no means 100% recovered from the oil spill.

I think one of the main ways that it affected me is Cordova before the oil spill I think was one of the major fishing ports in the U.S. in terms of value of catch. Basically, all through my childhood everyone said, "Don't be a fisherman, whatever you do, don't. That's not a viable source of income." And I think what's happened. Because everyone was encouraging us not to go fishing, a lot of people left, whereas in reality they could have stayed here and become valuable members of the community.

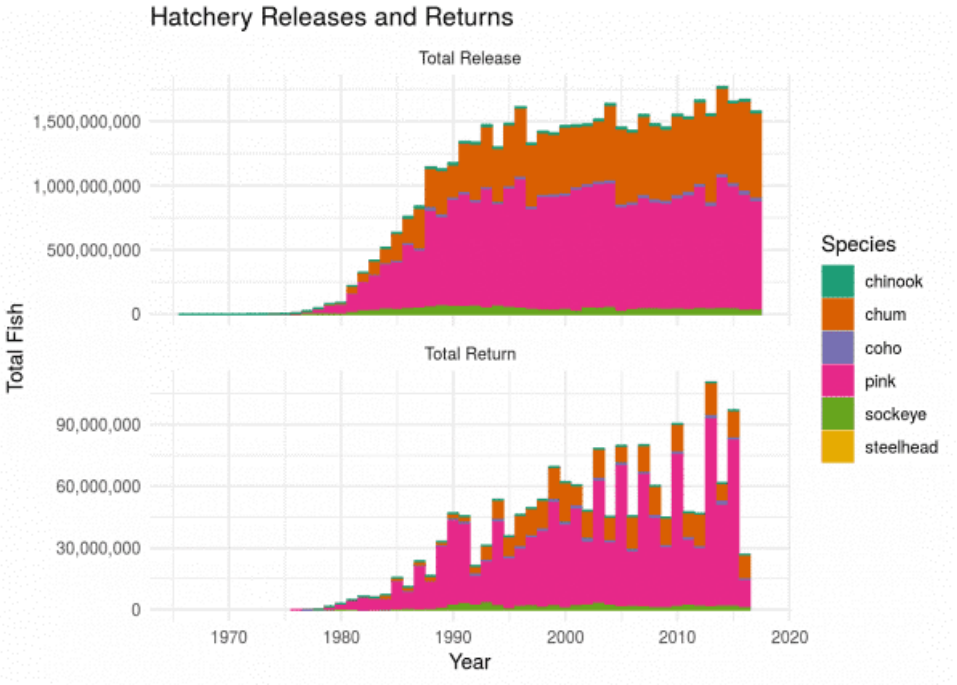
I think before the oil spill as a fisherman you could make money year-round. There was salmon in the summer, and halibut, and then there was crab in the winter, and then in the spring there was herring. And since the Oil Spill, there is no longer a herring fishery and there is no longer a crab fishery. And so, basically, if you look at someone's income now compared to someone's income in 1988, it's vastly different, just in the economic opportunities that you have. And so, I think, as a young person especially, it's really difficult to stay here because there's just a limited amount of economic opportunity. I have to leave, you know. I have to go work other places so that I can afford to stay here part of the time. That's the solution that a lot of people have. It's just really hard to be here all winter just because everything's expensive. As much as everyone wants to stay, it's just not always a choice that you can have."

Photo of oiled beach and protection of salmon stream Credit: Alaska State Archives Photo (ASA-RG348-SR612-AS17959-0127)

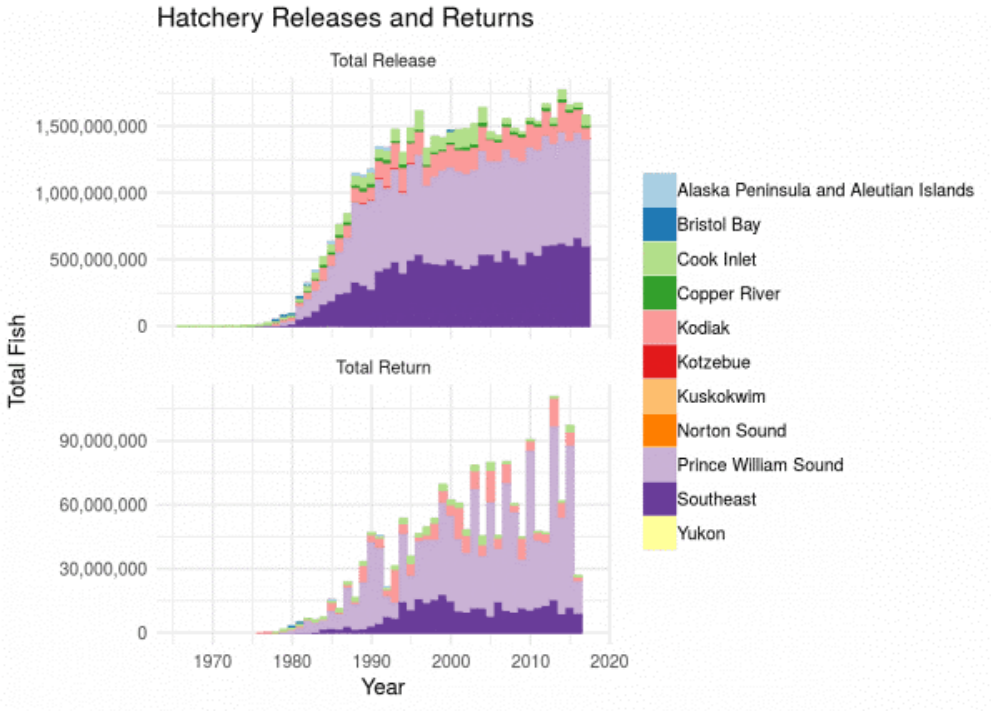
Regional Snapshot Today

Salmon and habitat

Since about 1990, approximately 1.5 billion juvenile Pacific salmon are released each year into Alaska waters with the goal of enhancing wild fisheries and increasing harvest in common property fisheries. Within Prince William Sound, over 750 million salmon are released with the majority being pink salmon, followed by chum salmon and sockeye salmon. For example, in 2016, 643 million pink salmon were released, 133 million chum salmon, and 10 million sockeye salmon. Returning adults are important components of the fishery, where in some years the entire catch of some species can be the result of hatchery production. Concerns of legacy effects of the Exxon Valdez oil spill remain, though recent evidence points to a stronger role of large scale changes in the ocean and for some species, potential competitive interactions with large numbers of wild and hatchery individuals rather than the oil spill being a primary determinant of salmon productivity.



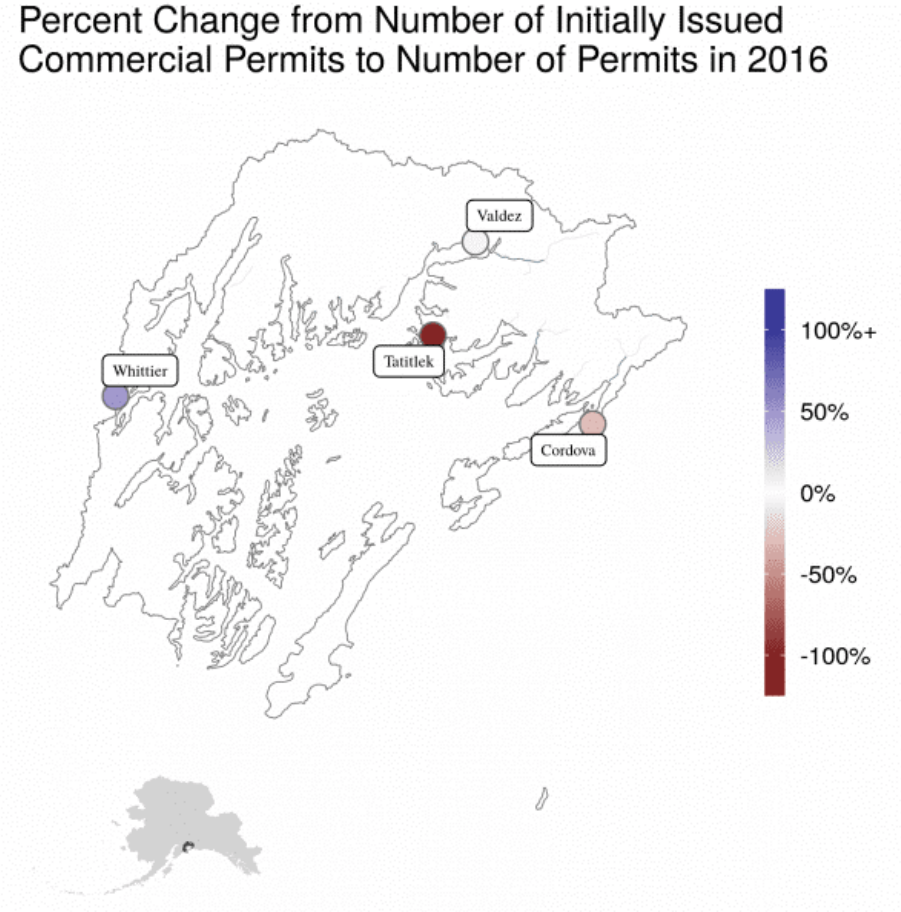
Alaska Department of Fish and Game, Mark, Tag and Age Laboratory, Madeline Jovanovich, and Emily O'Dean. Annual salmon hatchery releases from the Hatchery Release Report Form, Alaska, 1952-2017. Knowledge Network for Biocomplexity. [doi:10.5063/F12N50JP](doi:10.5063/F12N50JP).



Alaska Department of Fish and Game, Mark, Tag and Age Laboratory, Madeline Jovanovich, and Emily O'Dean. Annual salmon hatchery releases from the Hatchery Release Report Form, Alaska, 1952-2017. Knowledge Network for Biocomplexity. doi:10.5063/F12N50JP.

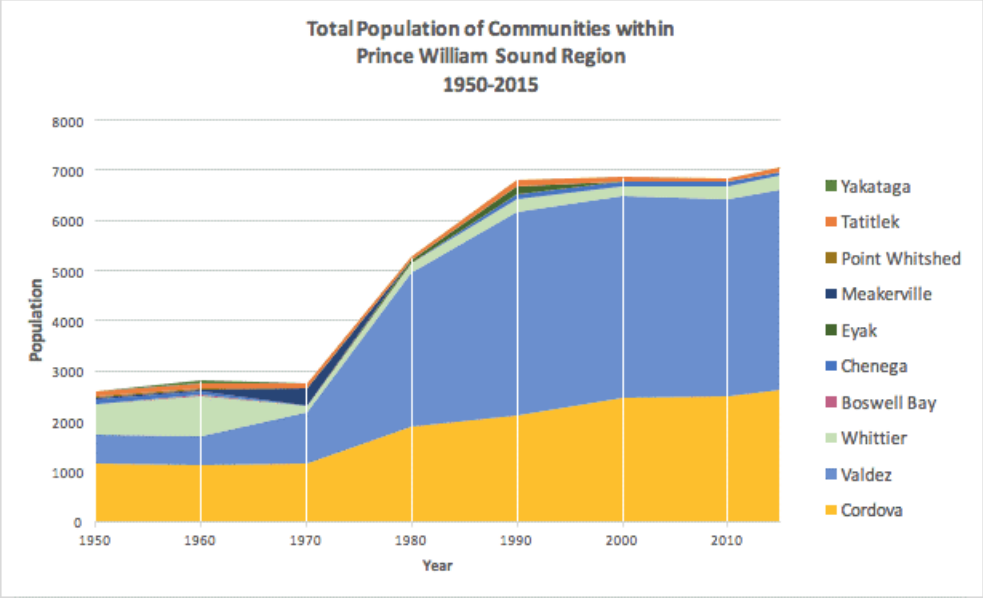
Salmon and people

Subsistence ways of life are very important to regional residents and more than 95% of households utilize subsistence resources, with annual ranges varying from 79.9 lbs. per capita in Whittier to 179.4 lbs. per capita in Cordova (Himes-Cornell et al 2013). Salmon has and continues to be a key subsistence fish for Alaska Natives in Prince William Sound where harvests have ranged from the 1980s to 2000s from 20,000 to 30,000 fish annually. In 2003 salmon subsistence harvests by Cordova residents accounted for 44% of total subsistence harvests. The mixed economy and relationship between commercial and subsistence practices are evident in that between 1987 and 2003 68% of subsistence salmon were kept from commercial catches followed by rod and reel gear and subsistence nets (Holen et al. 2011). Consistent features of subsistence practices through time in Prince William Sound include dense as well as geographically expansive kin-based sharing networks that enable household-level subsistence ways of life (Holen 2014).

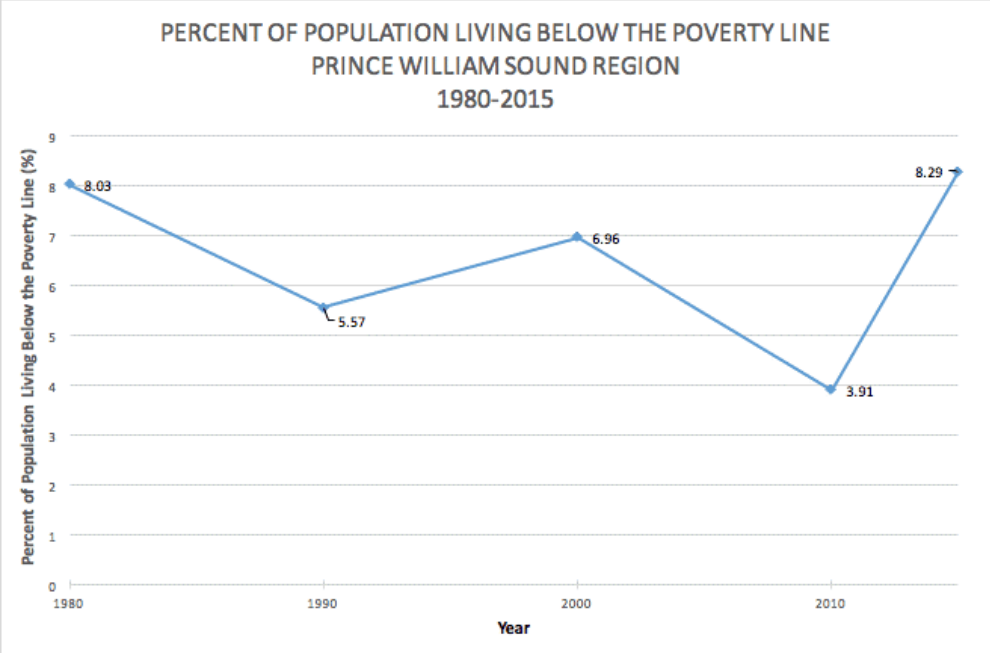


Percent change from number of initially issued (ranging from 1975-1982) permanent commercial salmon permits held by Alaska residents to number of permits in 2016 by community. Alaska Department of Fish and Game, Commercial Fisheries Entry Commission. 2017. Commercial Fisheries Entry Commission CFEC Public Permit Holders by Community of Residence 1975-2016. Knowledge Network for Biocomplexity. doi:10.5063/F189144V.

Though sport fishing is more predominant in Cook Inlet and Southeast, it is also important in the Prince William Sound region (Lang 2010), indicative of an increase in nonresident anglers and overall sport fishing across Alaska. Sport fishermen target all five species of Pacific salmon in addition to rockfish, halibut, and lingcod. The number of sold sport fish licenses in region summed to more than the population of Cordova, Valdez, and Whittier combined (Himes-Cornell et al. 2013).



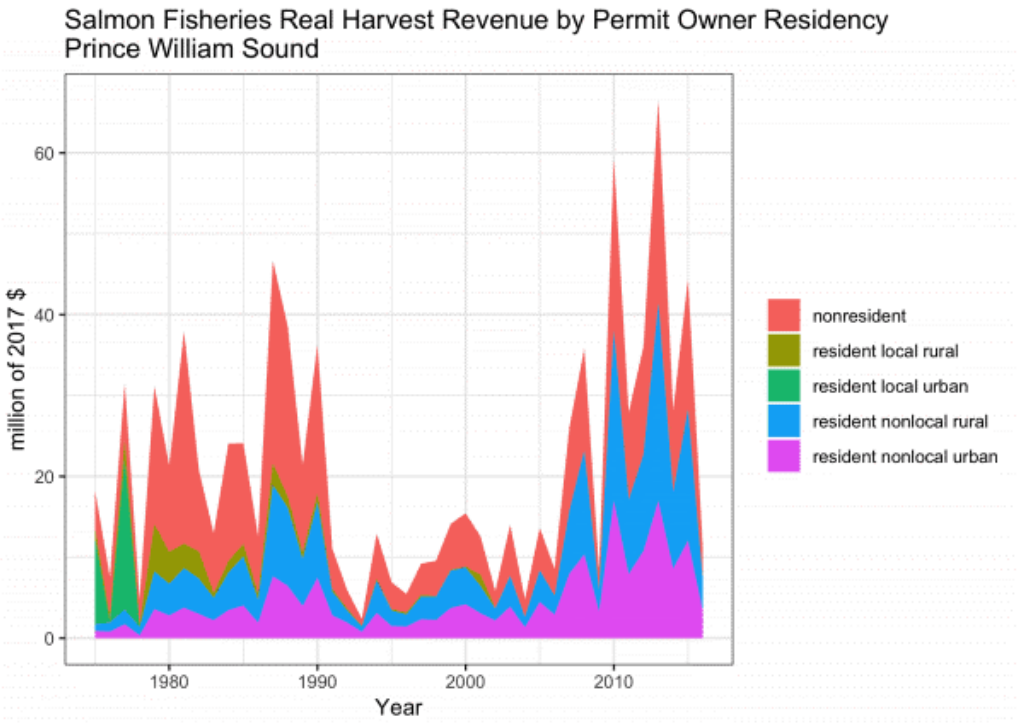
United States Census Bureau, Juliet Bachtel, John Randazzo, and Erika Gavenus. 2018. Alaskan Population Demographic Information from Decennial and American Community Survey Census Data, 1940-2016. Knowledge Network for Biocomplexity. doi:10.5063/F1XW4H3V



United States Census Bureau, Juliet Bachtel, John Randazzo, and Erika Gavenus. 2018. Alaskan Population Demographic Information from Decennial and American Community Survey Census Data, 1940-2016. Knowledge Network for Biocomplexity. doi:10.5063/F1XW4H3V

Salmon and economy

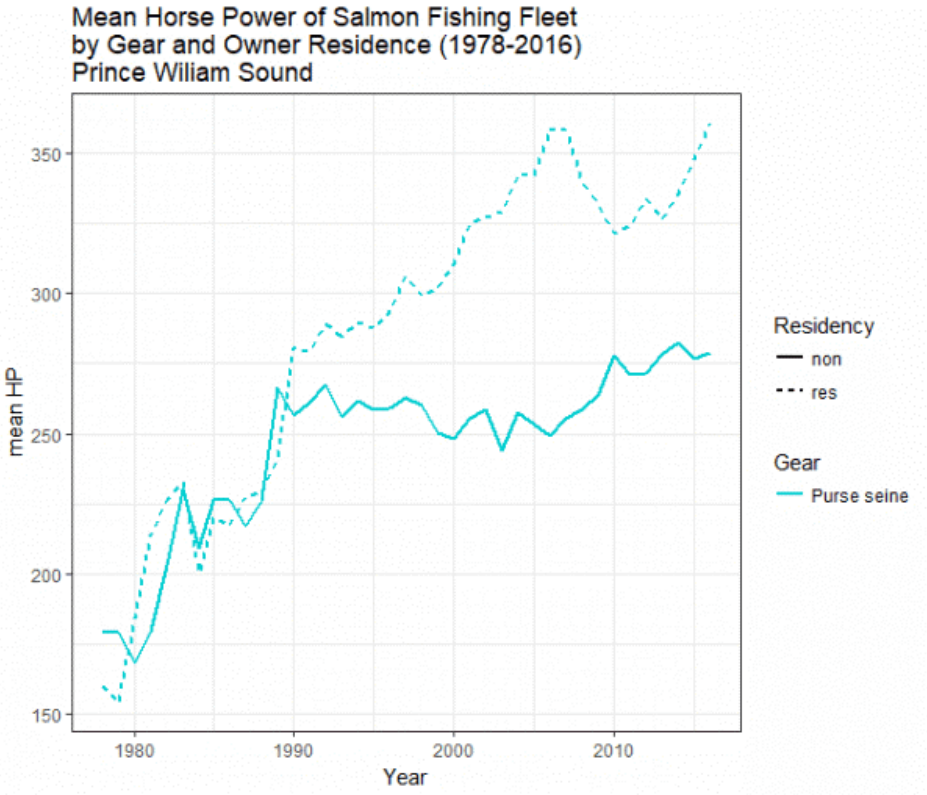
Salmon fisheries in the Prince William Sound region are the state's eighth largest in value having generated $0.9 billion in revenue since 1975 (inflation-adjusted 2017 dollars) and the state's third largest in volume. The region's salmon catch is highly dependent on hatchery production. The state has consistently invested in salmon enhancement (hatcheries) in the region since the early 1980s. Historically, up to $2 million in loans were issued annually to aquaculture associations in the region. In the most recent decade loans reached $0.5 million annually. Prince William Sound commercial salmon fisheries stand out to be an anomaly regarding historical real (inflation-adjusted) revenue. It's the only region where post-year-2000 revenue reached historic records, increasing from a pre-year-2000 high of $40 million to a record $60 million in real revenue for harvesters in the last decade.



Tobias Schwoerer. Regional commercial salmon permit earnings by residency status, Alaska, 1975-2016. Knowledge Network for Biocomplexity. doi:10.5063/F1WW7FZ2.

The predominant reason for this increase in revenue is the large hatchery releases coupled with favorable ocean conditions that has led to increases in total returns of both wild and hatchery salmon, offsetting price declines due to rapid and sustained growth in world farmed salmon production. Some of the most recent increases can also be attributed to some price recovery due to marketing efforts leading to differentiation between wild and farmed salmon and many other factors of complex

world market forces. The distribution of revenue received by commercial harvesters operating in the region varied historically. Revenue going to nonresidents decreased from the early years of commercial fishing in this region to the most recent decade. To the contrary, revenue to Alaska residents living in urban parts of the state and outside the Prince William Sound region (Anchorage and the Mat-Su) has increased. Consistent with general migration trends from rural to urban parts of Alaska, permit holders that previously resided in the rural part of the region either moved to urban parts of the state or – as other data on permit transfers shows – sold their permits primarily to residents living in Cook Inlet.



Alaska Department of Fish and Game, Commercial Fisheries Entry Commission and Tobias Schwoerer. 2018. Commercial vessel characteristics by year, state, Alaskan census area and city, 1978-2017. Knowledge Network for Biocomplexity. doi:10.5063/F14F1P2Q

Salmon and subsistence

State regulatory framework

This overview addresses the Prince William Sound (PWS) Management Area except for the Copper River watershed (including fisheries near the community of Cordova), which is discussed separately. A portion of the PWS Area is within the Valdez No subsistence Area (5 AAC 99.015(a)(5), where the Board of Fisheries is not authorized to permit subsistence fisheries. The boundaries of this no subsistence area are identical to the city limits of Valdez.

Permits are required to participate in subsistence salmon fisheries in Prince William Sound. There are three regulatory subareas. In the Southwestern District and the waters along the northwestern shore of Green Island, salmon may be taken with seines or set nets. In addition, pink salmon may be taken with dip nets in fresh water. There are no bag or possession limits. This area generally corresponds to the portion of western Prince William Sound traditionally used for subsistence fishing by the community of Chenega Bay. The ANS for this fishery is 2,100 – 3,500 salmon (5 AAC 01.616(b)(3)).

A second regulatory subarea with a separate permit requirement is in eastern PWS, primarily in the Eastern District, and extends north of a line from Porcupine Point to Granite Point, and south of a line from Point Lowe to Tongue Point. Regulations are similar to those in the Southwestern District. This area generally corresponds to the waters of eastern PWS traditionally used for subsistence fishing by the community of Tatitlek. The ANS for this fishery is 1,800 – 3,000 salmon (5 AAC 01.616(b)(4)).

In the remaining areas of PWS, subsistence fishing is open in conformance with the commercial salmon fishery in each district regarding gear, open areas, and open periods. Annual limits are 15 salmon for a household of one, 30 salmon for a household of two, and 10 salmon for each additional household member. The ANS for this fishery is 115 – 200 salmon (5 AAC 01.616(b)(5).

Resettlement of the former residents of Chenega (destroyed by a tsunami following the great earthquake of March 1964) at Chenega Bay on Evans Island in 1984 and 1985 resulted in reforms to subsistence fishing regulations in Prince William Sound beginning in 1988. Until then, all subsistence salmon fishing in PWS districts had to comply with commercial fishing regulations. This meant that Chenega Bay residents could only subsistence fish with purse seines. In response to proposals submitted on behalf of Chenega Bay and Tatitlek, the Board of Fisheries modified the regulations for the areas traditionally fished by each community to gill nets, seines, and, in freshwater for pink salmon, dip nets, as well as removed the inappropriately low annual harvest limits (Stratton 1990:92-95).

Federal regulatory framework

Federal subsistence salmon fishing regulations for the Prince William Sound Area (excluding the Copper River and upper Copper River districts) are basically identical to state regulations. Federal regulations apply on inland waters within or adjacent to the Chugach National Forest and exclude marine waters.

Subsistence salmon harvest patterns

Subsistence activities in most of PWS, including subsistence salmon fishing, were severely disrupted by the Exxon Valdez oil spill of March 1989. Local residents were concerned about oil contamination of salmon, other fish, shellfish, marine mammals, and birds. Fishery managers closed commercial fisheries to prevent oiling of harvest gear, raising additional concerns about the safety of eating fish from the spill area (Fall et al. 1996; Field et al. 1999). Several years passed before subsistence harvests rebounded to approach pre-spill levels (Fall et al. 2001).

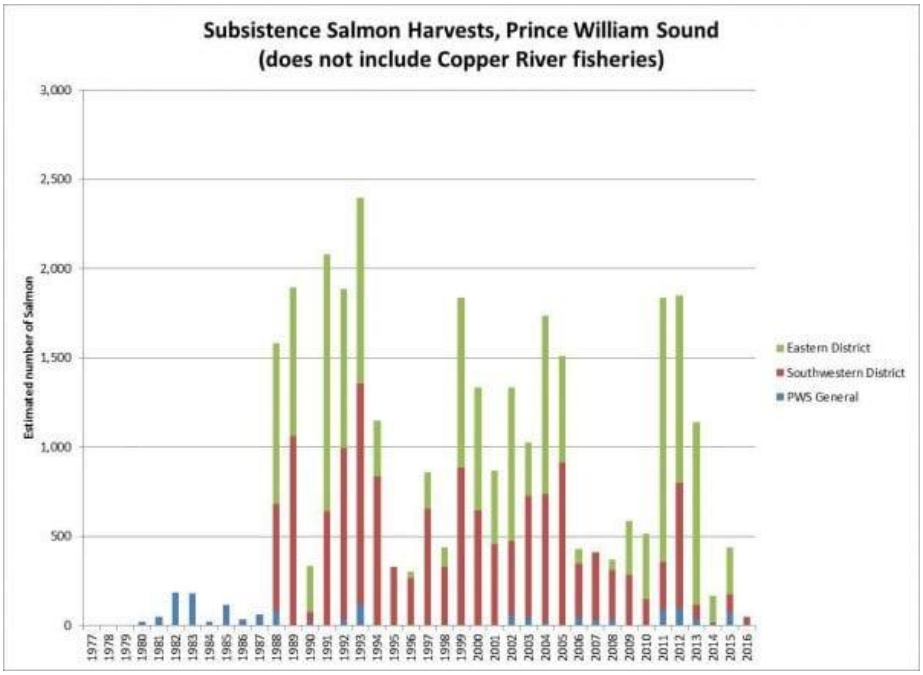


Fig. 11-1. Alaska Department of Fish and Game, Division of Subsistence. Subsistence and personal use harvest of salmon in Alaska, 1960-2012. Knowledge Network for Biocomplexity. doi:10.5063/F18P5XTN..

Estimates of subsistence salmon harvests in PWS have varied widely (Figure 11-1). Few salmon were reported harvested in subsistence fisheries before the regulatory changes of 1988, and harvests in the districts not associated with Chenega Bay and Tatitlek have averaged just 37 salmon from 1977 – 2016 (range of185 in 1982 to 0 in 12 years within that period), with an average of about 11 permits issued (with a range of 35 in 1982 to 1 in 2009 and 2010), in recent years mostly issued to residents of Anchorage. In the Southwestern District since 1988, the annual average harvest was 493 with a range of 1,243 salmon in 1993 to just 10 in 2014. In the Eastern District,

the average was 578 with a range of 1,480 in 2011 to none reported in 2016. Chenega Bay and Tatitlek residents obtain most of the permits in these districts, respectively. Household surveys (the most recent conducted for 2014), suggest that the permit system underestimates subsistence salmon harvests in both communities (Fall 2018:218-219)

Over the period 1988 to 2016, sockeye salmon made up 43% of the PWS subsistence salmon harvest based on permit returns, followed by coho (28%), pink (15%), chum (13%), and Chinook (1%). Sockeye composed the largest portion of harvests in the Southwestern District (46%), and coho were most numerous in the Eastern District (45%). Sockeye salmon made up most of the small harvests in the remaining districts (73%) (Figure 11-2).

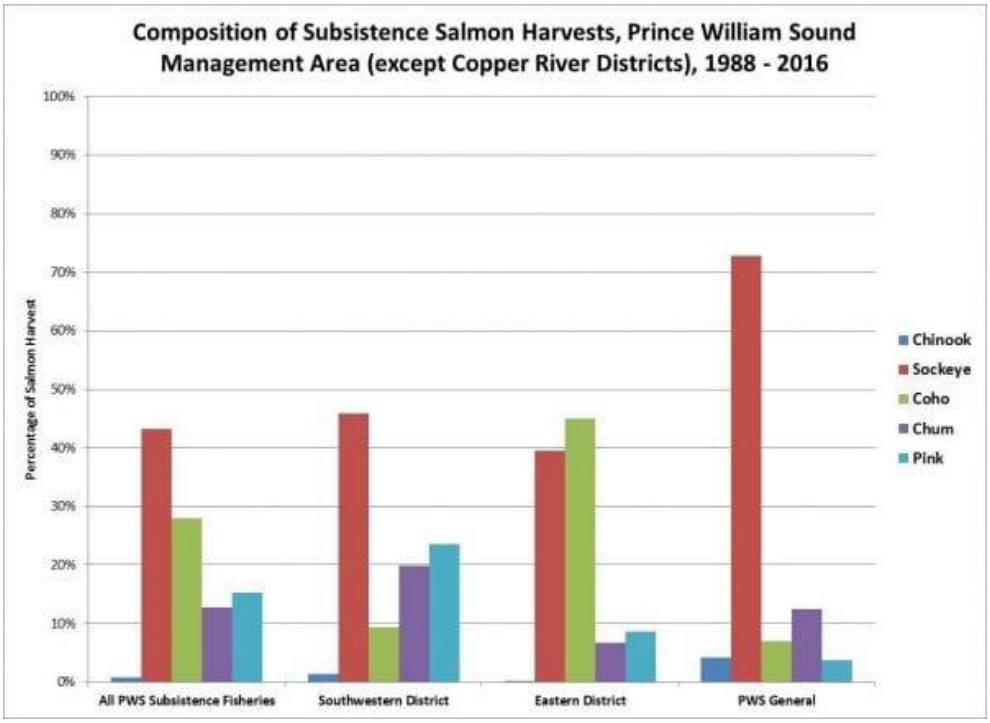


Fig. 11-2. Alaska Department of Fish and Game, Division of Subsistence. Subsistence and personal use harvest of salmon in Alaska, 1960-2012. Knowledge Network for Biocomplexity. doi:10.5063/F18P5XTN.

Based on findings from comprehensive harvest surveys, salmon provided 40% of the harvest of wild resources as estimated in usable weight in the three communities of PWS outside the non-subsistence area (Chenega Bay, Tatitlek, and Whittier). This was the highest of any resource category (Figure 11-3). Salmon made up 48% of noncommercial harvests of wild resources by residents of the Valdez Nonsubsistence Area in 2014 (ADF&G 2017; see also Fall 2016).

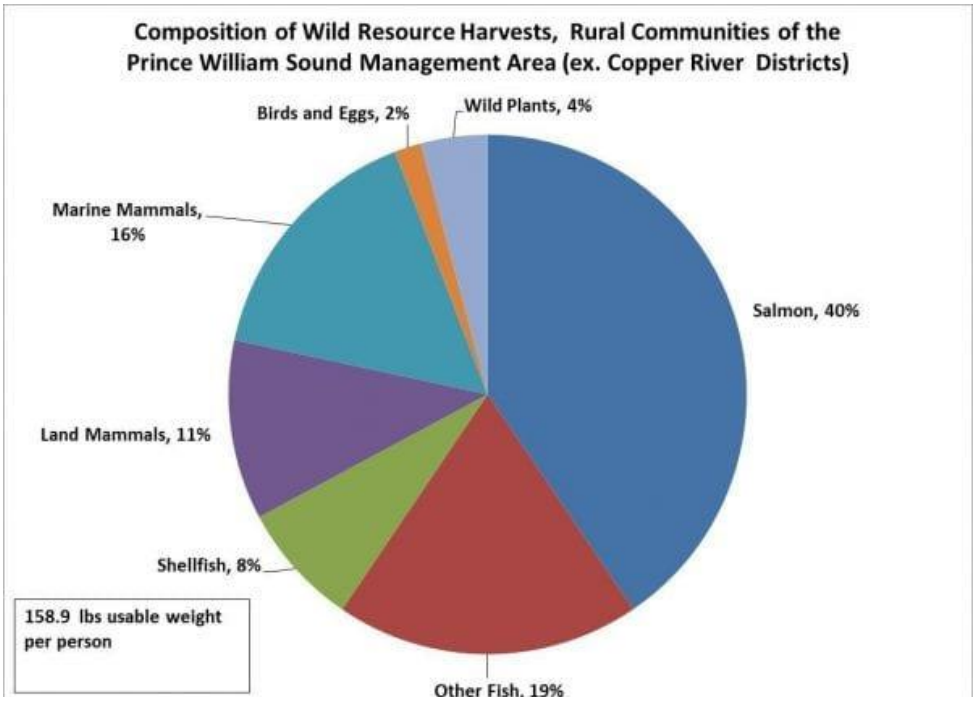


Fig. 11-3. Alaska Department of Fish and Game, Division of Subsistence. 2018. Subsistence harvest information by region, community, resource, and year, 1964-2015. Knowledge Network for Biocomplexity. doi:10.5063/F1S75DNC.

Salmon and governance

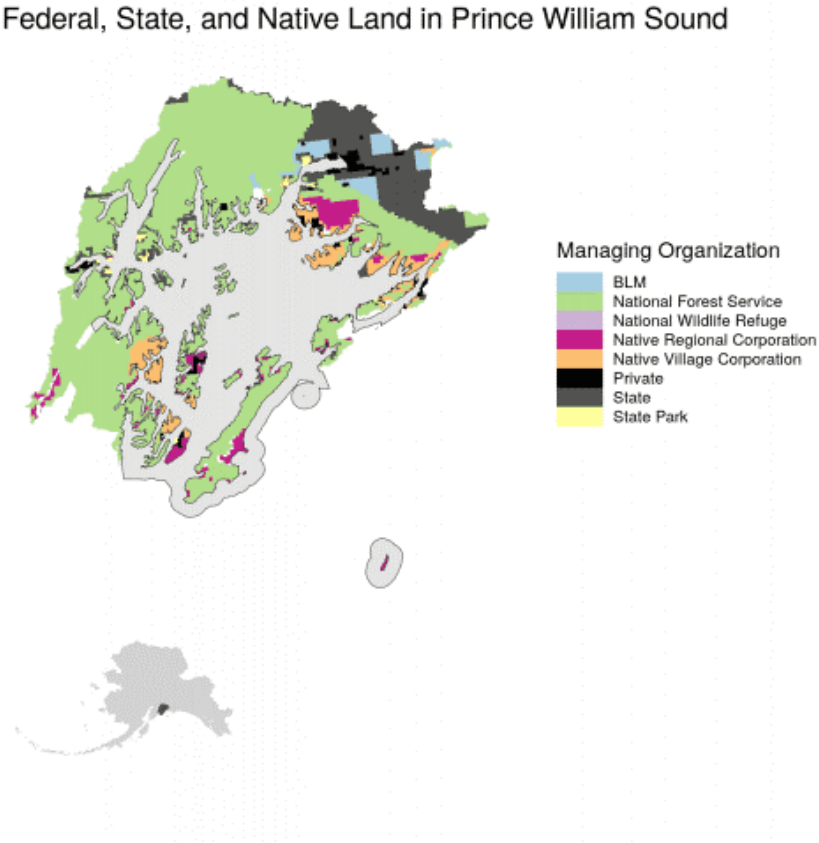
Prince William Sound governance processes through ADF&G and the Board of Fisheries institutions are necessary for the authorization of hatchery releases, primarily of pink and chum salmon. Returns of hatchery fish provide nearly 97% of the dockside value in the region but raise significant questions about impacts on wild stocks that are protected by the Sustainable Salmon Policy. The federal lands of the Chugach National Forest predominate in this region, but state fisheries management plays the larger role.

The prevention of future oil spills has been a significant factor in mobilizing the residents and permitted fishermen of Prince William Sound to participate in the creation of laws and governmental organizations to monitor oil transport through the region. The Chugach Alutiiq villagers whose subsistence uses were drastically impacted by the Exxon Valdez oil spill brought suit in federal court for compensatory damages to traditional cultural practices linked to subsistence activities and harvests but lost the case receiving compensation only for the food value of their losses. Hatchery salmon are the mainstay of the commercial fleet in Prince William Sound

but increasing releases of hatchery fry has become a significant governance issue due to questions about potential impacts on wild salmon stocks of straying hatchery fish. Between 2000-2018, Prince William Sound salmon fisheries were declared a disaster on one occasion.

Land Ownership

Lands in the Prince William Sound region are found mostly in the Chugach National Forest under the jurisdiction of the US Forest Service. Some additional federal lands are managed by the Bureau of Land Management. State lands are found in the eastern section of region. Alaska Native corporation lands, village and regional, are concentrated for the most part along the eastern side of the sound. Private land ownership is concentrated around the oil terminal in Valdez and at various historic mining sites throughout the region.



Emily O'Dean and Jeanette Clark. Land status in Alaska, 2018. Knowledge Network for Biocomplexity. doi:10.5063/F1NK3C9X.

There are no boroughs in the Prince William Sound region. Three tribes and one tribal association are present in the region. The Eyak Tribe headquartered in Cordova cooperates with the ADFG on a salmon test fishery at the mouth of the Copper River to assess early season returns to the Copper River. The Chugach Rural Resources Commission represents the region's Alaska Native communities on a variety of issues.

The Cordova District Fisheries Union (CDFU), the oldest continuing fishing organization in the state, represents the interests of regional fishermen in a host of venues including the Board of Fisheries and cooperates with environmental organizations in regard to habitat protection.

Several post-EVOS institutions were created that play important roles in Prince William Sound environmental governance. The EVOS Trustees Council, funded primarily through court-ordered payments from Exxon into an endowment has monitored the status of pink salmon, 75% of which spawn in intertidal waters affected by the oil spill. The stocks were determined to have recovered in 1999. In 1990, the Prince William Sound Regional Advisory Council was established, funded by Exxon, to monitor oil transport and spill-cleanup capabilities. Following passage of the Oil Spill Protection Act of 1990, it acquired status as the federal certified watchdog over corporate and government activities associated with oil transport.

Five salmon hatcheries operate in the Prince William Sound region. They are governed as private, non-profit hatcheries. They produce salmon primarily for the commercial purse seine fishery and secondarily for the sports fishing, especially in the Valdez area.

There are five Advisory Committees in the Prince William Sound region, all of which are situated in rural, single, roadless communities. There is a separate Advisory Committee for considering Copper River issues. Two of the Alaska Native communities in the region do not have Advisory Committees. The location of Prince William Sound Advisory Committees can be seen here.

Board of Fisheries

Prince William Sound ranks sixth in the number of proposals submitted per region with 157 over the study period. Throughout the period, proposals dealing with gear/vessels and boundaries have most numerous (Fig. 1-1). Prince William Sound proposals have overwhelmingly addressed commercial fishery issues over the period (Fig. 1-2).

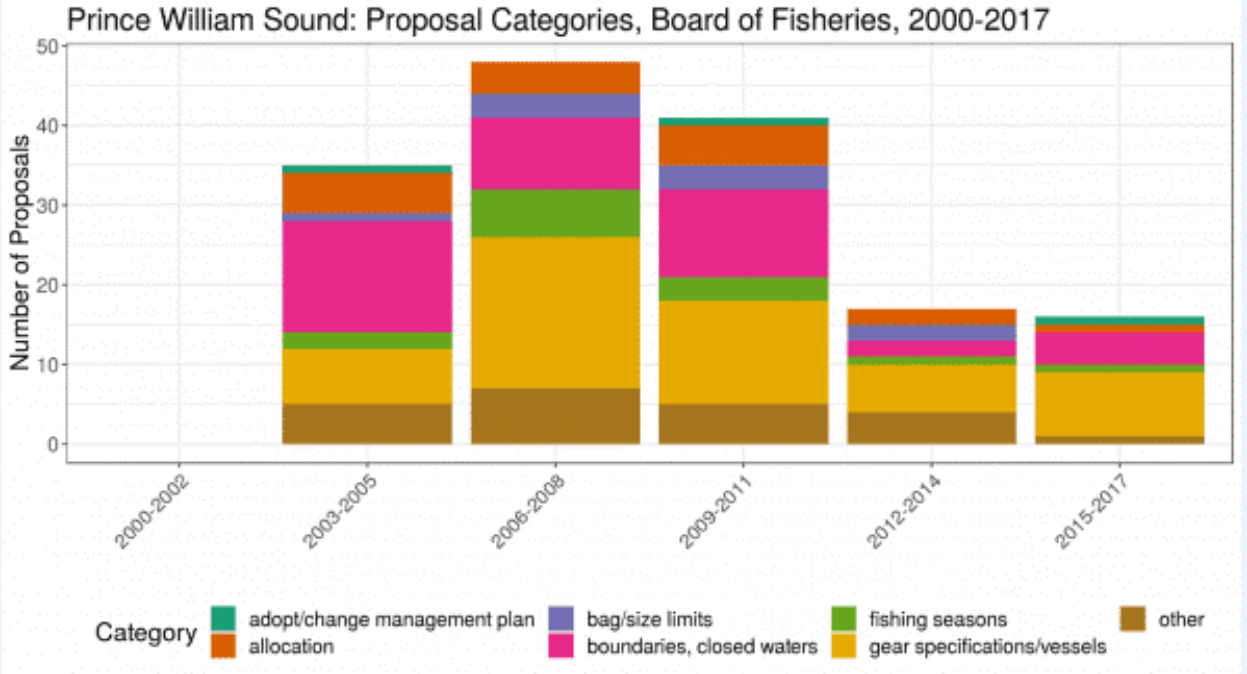


Fig. 1-1. Stephen Langdon, Taylor Brelsford, Jim Fall, and Jeanette Clark. 2018. Salmon Proposals to the Alaska Board of Fisheries, 2000-2017. Knowledge Network for Biocomplexity. [doi:10.5063/F1D21VW7](doi:10.5063/F1D21VW7)

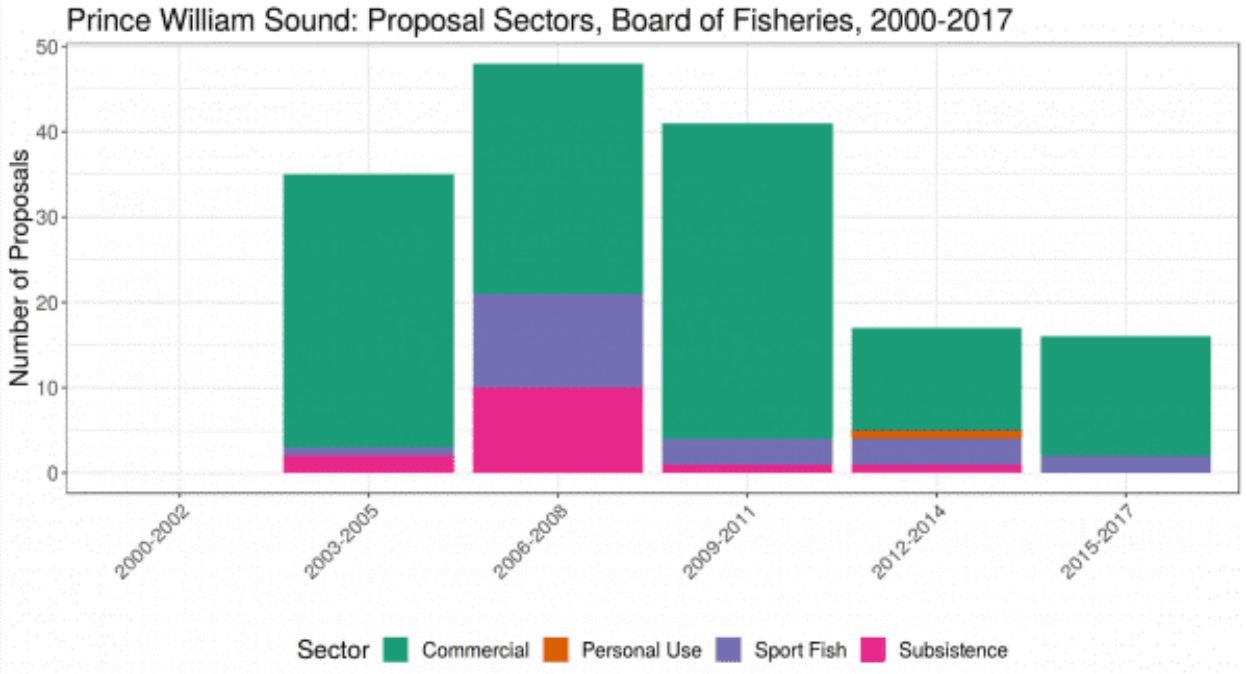
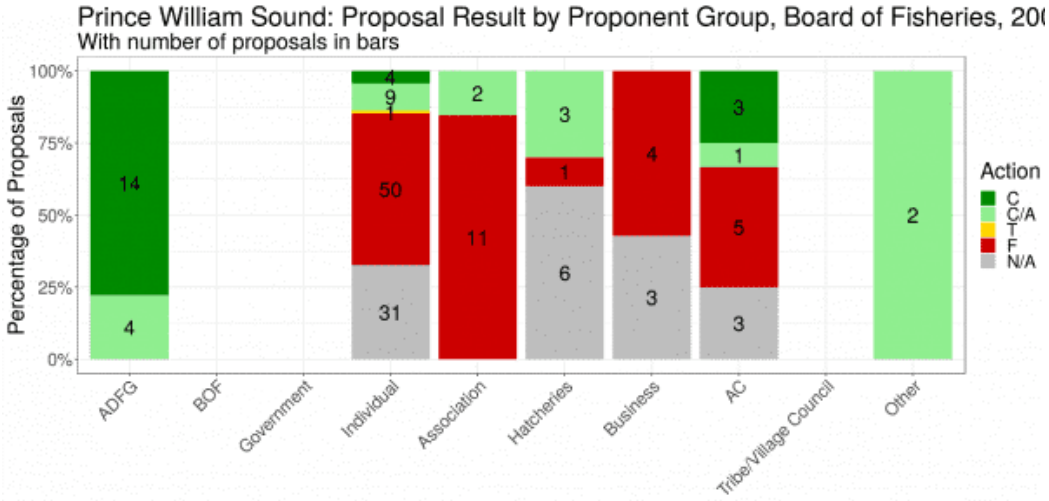


Fig. 1-2. Stephen Langdon, Taylor Brelsford, Jim Fall, and Jeanette Clark. 2018. Salmon Proposals to the Alaska Board of Fisheries, 2000-2017. Knowledge Network for Biocomplexity. [doi:10.5063/F1D21VW7](doi:10.5063/F1D21VW7)

Proposal Success

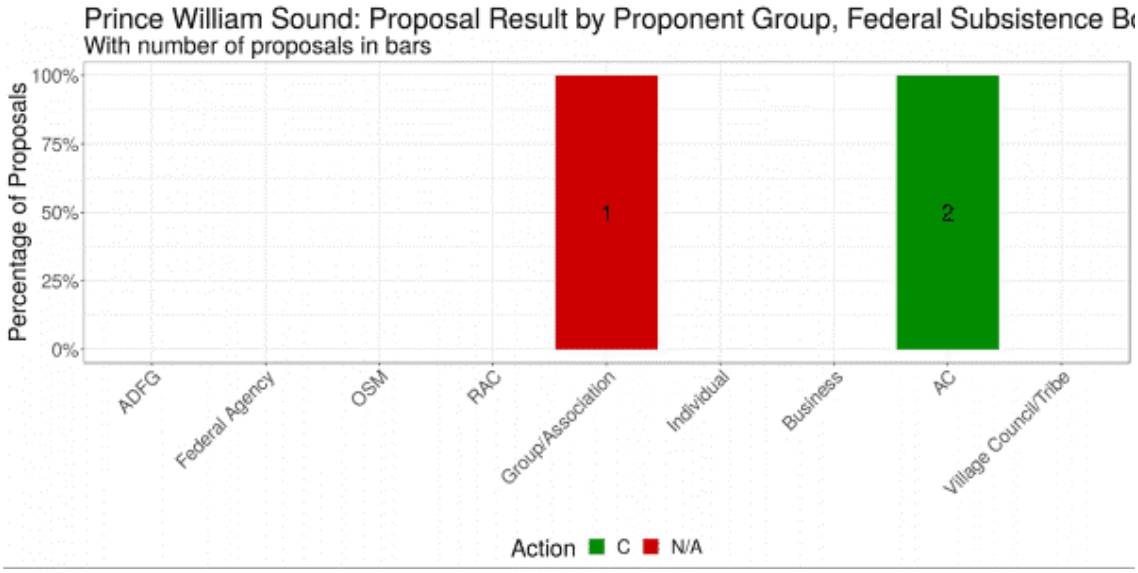
Of the proponent groups in Prince William Sound, Advisory Committees have had the most proposals passed. Village council/Tribes in the region have not submitted any proposals over the period.



Stephen Langdon, Taylor Brelsford, Jim Fall, and Jeanette Clark. 2018. Salmon Proposals to the Alaska Board of Fisheries, 2000-2017. Knowledge Network for Biocomplexity. [doi:10.5063/F1D21VW7](doi:10.5063/F1D21VW7)

Federal Subsistence Board

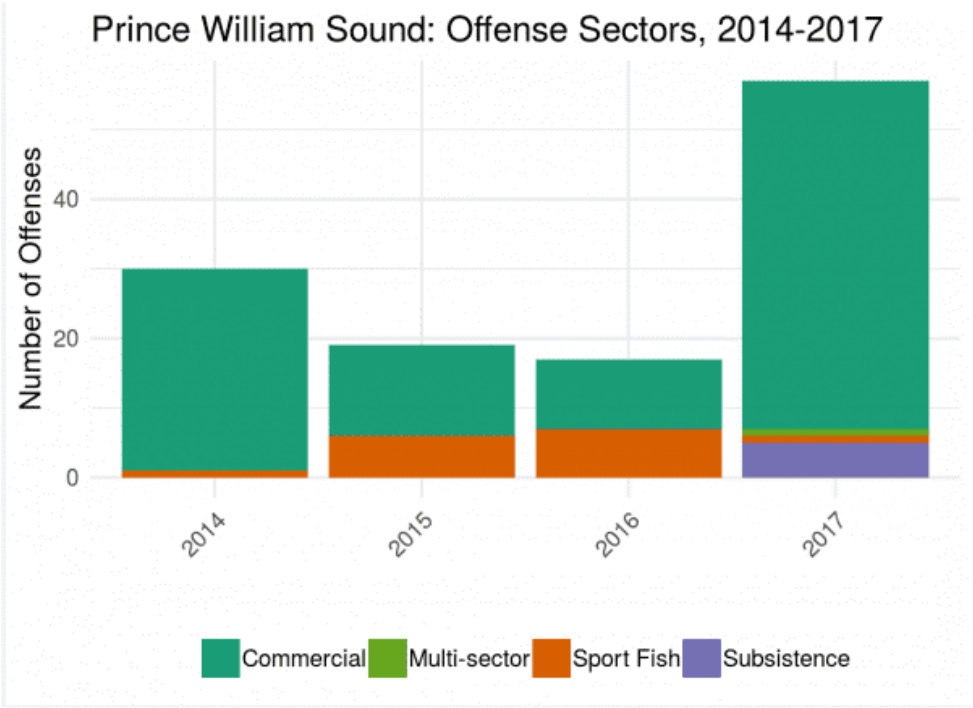
Prince William Sound communities participate in the South Central (Region 2) RAC for the federal subsistence program. There has been very little activity by the Prince William Sound entities concerning salmon in the federal subsistence board process.



Taylor Brelsford, Steve Langdon, and Jeanette Clark. 2018. Alaska Federal Subsistence Board Proposals 2000-2015. Knowledge Network for Biocomplexity. doi:10.5063/F1HT2MMN

Enforcement

Citations issued by Wildlife Troopers for salmon fisheries violations in Prince William Sound have been substantial over the last four years. Commercial citations have been most numerous and a substantial increase in these citations occurred in 2017. In 2017, citations for subsistence violations were also given for the first time.



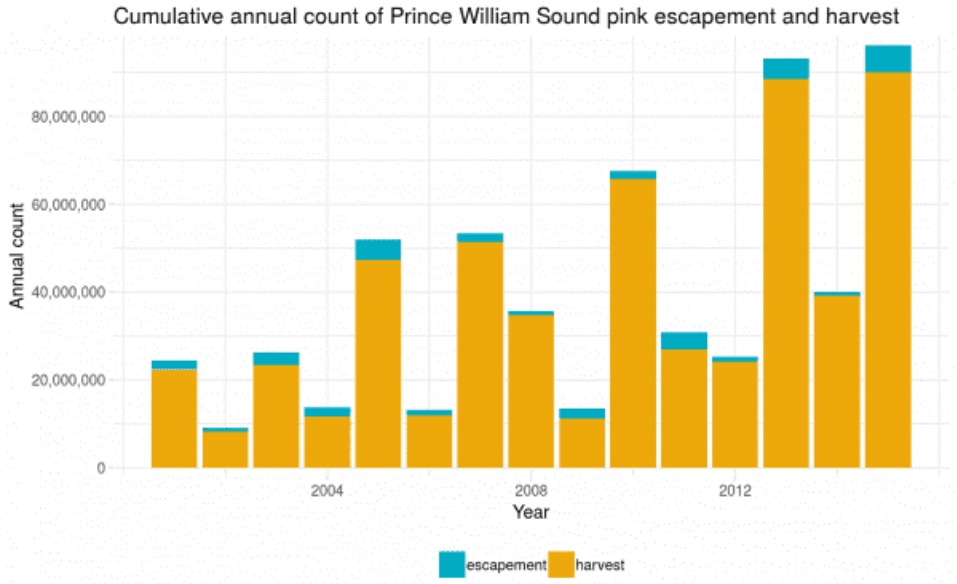
Alaska Department of Public Safety, Division of Alaska Wildlife Troopers. 2018. Violations and Enforcement of Salmon Fishing Regulations, Alaska, 2014-2017. Knowledge Network for Biocomplexity. doi:10.5063/F1VH5M32

CASE STUDIES

Hatchery Expansion and Sustainable Wild Salmon

Prince William Sound commercial salmon fisheries are highly dependent on abundance produced by the region's hatcheries. Hatchery production in Prince William Sound dates to 1975 and over time the number of salmon produced by the hatcheries has increased 100-fold.

Through state entities known as Regional Planning Teams, assessments are made of the need and advisability of hatchery produced salmon. With a finding of need, an organization develops a request for a specific level of hatchery production by species which is submitted to the ADF&G Commissioner, who has the authority to authorize the hatchery production proposal. The governance of hatchery production is addressed by the Sustainable Salmon Policy which requires that hatchery stocks not have adverse impacts nor damage the productivity of wild salmon stocks.



Cumulative annual count of pink salmon escapement and harvest in Prince William Sound, 2001 – 2015. Jeanette Clark and Robyn Thiessen-Bock. Estimate of total Alaskan salmon abundance by region, 2000-2015. Knowledge Network for Biocomplexity. doi:10.5063/F1BR8QG4.

One of the characteristics of salmon, whether from hatchery enhancement or not, is the tendency of a portion of the adult population to stray from their origination sites into streams in other areas. A major study initiated by a science panel comprised by State, Federal, University, and Industry partners is in process to address the issue of straying hatchery stock and potential impacts on wild stocks but is not yet completed. In 2017, Prince William Sound hatchery produced salmon were found to be over 50% of returning salmon found in certain streams examined in Kachemak Bay and southern Cook Inlet causing concerns for some about impacts on local wild stocks. Fishermen and hatchery managers from Solomon Gulch Hatchery in Prince William Sound following approval to increase output by 20 million by ADF&G sent a proposal to the Board of Fisheries to authorize the release. The Board of Fisheries cannot revoke or significantly alter the terms of the permit, but they amend permit terms related to fish and egg harvest by hatcheries, particularly if there are allocative implications of the hatchery takings. The Board of Fisheries passed the proposal for additional hatchery release. Increases in the total harvest and escapement of pink salmon in Prince William Sound can be interpreted as a signal that hatcheries are not negatively impacting wild stocks, however, escapement estimates cannot separate wild from hatchery enhancement on the spawning grounds.

A consortium of stakeholders spearheaded by the Alaska Outdoor Council and the Alaska Sportfishing Association and including other sportfishing, personal use, and Lower Cook Inlet stakeholders submitted an emergency petition in June to the Board of Fisheries to reverse their decision to authorize the additional taking. The Board of Fisheries response was that the petition did not meet the criteria for emergency and therefore would not be considered under such provisions. The Board held a hearing in Anchorage on the request for reversal on October 16. Public participation was limited to comments during a Committee of the Whole session. A substantial group of Cordova fishermen flew in for the hearing and stood in solidarity during testimony in support of maintaining the authorization. Two motions were made concerning the request for reversal and both were defeated. The authorization for the additional release of 20 million fry by the Valdez Fisheries Development Association stands.

Compensating Cultural Losses Due to Human Damage to Subsistence Salmon Resources

The impacts of the Exxon Valdez oil spill in 1989 on the fisheries and other resources of Prince William Sound are recognized as profoundly disrupting and harmful to the lives of the people of Cordova but also other communities whose residents utilized the marine resources of the oiled areas for their livelihoods. For Alaskan Native village residents throughout the oil spill area, subsistence harvests for salmon and intertidal resources were reduced and the harvest, consumption, distribution and celebration events associated with subsistence activities were essentially severed for a number of years following the spill.

As one of several legal actions seeking compensation and damages for losses, Alaska Native villages in the oiled areas of Prince Williams Sound and Lower Cook Inlet who were no longer able to obtain subsistence resources brought a suit for damages to cultural values associated with the subsistence way of life or “non-economic subsistence claims.” In addition to identifying the centrality of “customary and traditional” subsistence activities to the fundamental essence and character of the communities, the Alaska Native villages argued that ANILCA title 8 stipulates that subsistence is “essential” to Alaska Native “existence” and distinguishes Alaska Native “cultural” uses as distinct from nonnative uses.

In 1994, Justice Holland ruled in Order 190 that Alaska Native losses could not be distinguished from those of the general public that were not eligible for compensation and that the ANILCA distinction identifying Alaska Native “cultural uses” was “of no significance.” The ruling was appealed to the Ninth Circuit, which upheld Holland’s finding noting that the Alaska Native class had failed to prove “special injury” to their communal way of life warranting compensation for non-economic losses. Further, the Ninth Circuit stated that

"whatever injury they suffered …though potentially different in degree than that suffered by other Alaskans, was not different in kind" as the right to lead subsistence lifestyles is not limited to Alaska Natives. In a separate ruling concerning economic losses resulting from the oil spill, the Ninth Circuit ruled that like commercial fishermen, subsistence harvesters were entitled to make claims for the value of the resources they take from the sea noting that the spill interfered with subsistence harvesters' ability to "lawfully and directly make use of the sea in the ordinary course of their business… that business being their very livelihoods." Therefore, these decisions determined that under the umbrella of maritime law encompassing cases associated with the Exxon Valdez oil spill, Alaska Natives were only entitled to the economic value of their food losses and not entitled to damages for "cultural" losses as those losses were different only in "degree" and not "kind" for nonnative subsistence users.

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