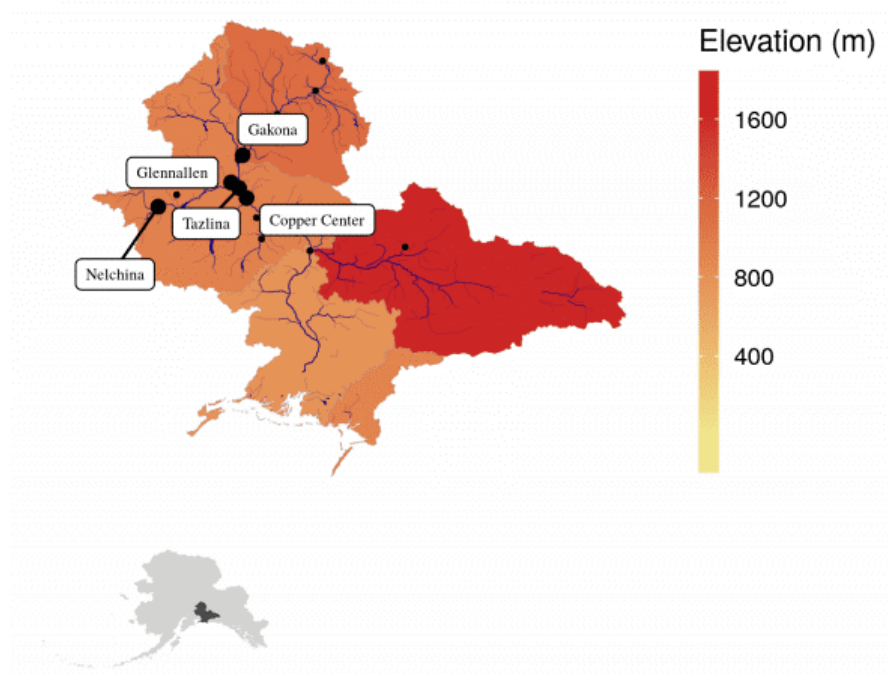


# COPPER RIVER

## Geography

The Copper River Basin is in Southcentral Alaska between the Wrangell Mountains and Chugach Range and where the Copper River flows out into the ocean near Prince William Sound (Holen 2004). Less than 2500 people live permanently in this region that is comparable in size to the State of West Virginia, though is connected by road to the urban centers in the Cook Inlet region (e.g. Anchorage) and the Yukon (e.g. Fairbanks). By abundance, sockeye salmon are dominant, given the multiple large lakes available to rearing of juvenile salmon, which are supplemented by large scale hatchery releases to inaccessible rearing areas. Though less abundant, Chinook salmon are important and highly valued by all salmon-connected people but have declined in abundance since 2007.

Mean Elevation per Watershed: Copper River



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](https://doi.org/10.5063/F1D798QQ).

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## Early people and salmon systems

Indigenous Athabascan people of the Copper River watershed have harvested salmon for thousands of years. The Ahtna people have inhabited the Copper River basin for at least 1,500 years and perhaps as long as 5,000. Different areas of the Copper River delta were occupied by the Eyak and Chugach Alutiiq groups. Ahtna groups are separated linguistically into the Lower Ahtna (residing in Chitina, Tazlina, and Copper Center), Central Ahtna (in Gakona and Gulkana), and the Upper Ahtna (in Chistochina, Slana, and Mentasta). The Western Ahtna relocated to Cantwell in the 1930s for railroad jobs and other opportunities (Holen 2004). A linguistically and culturally distinct group, the Eyak people inhabited the Copper River delta and these groups have shared and valued salmon as a means of providing food, identity, culture, wealth, and well-being. Copper River region Ahtna and Eyak people's salmon management practices have evolved around concepts of fairness and sustainability where the salmon's spirit is highly respected through culturally derived activities that focus on the health and return of salmon.



*Photo: Upper Ahtna leader Wilson Justin stands by sweat lodge at Batzulnetas salmon fishing site. Sweat baths were taken in preparation for the celebration of the arrival of the salmon and their subsequent Harvesting. Source: Steve J. Langdon*

## Changes in systems

The salmon fisheries of the Copper River basin are a microcosm for the management struggles that have played out across the rest of Alaska. Commercial fisheries began in the 1800s with the use of fish traps and gillnets. In the upper reaches of the Copper River, Ahtna elders have witnessed dramatic change in their environment and their lives as salmon-dependent people (Simeone et al. 2007). Commercial fisheries began in the 1870s and led to periods of starvation for the Ahtna in the 1910s. In 1984, after the passing of the Alaska Native Claims Settlement Act (1971) and Title 8 of the Alaska National Interest Lands Conservation Act (ANILCA) (1980), Ahtna elders began what is now called the Katie John litigation in pursuit of the right to fish for salmon in their traditional site at Batzulnetas. In 1995, their rights were upheld in federal courts and they were able once again to catch salmon at their traditional site. This legal case exemplifies the continuing struggle between tribal, state, and federal jurisdiction and power over Alaska Native subsistence fishing rights (Josephson 1997).

## Regional Snapshot Today

### Salmon and habitat

For its size, the Copper River is far the most diverse in terms of salmon habitat. Overall, the breadth of habitat diversity, as measured by things like air temperature during the summer growing season, stream elevations, and connections to floodplains, observed in the Copper River spans all other regions. This diversity of habitat is associated with high densities of known salmon populations. For example, the density of Chinook salmon in the Copper River rivals the larger Kuskokwim River and sockeye salmon are even more densely distributed in the Copper River than in Bristol Bay (a widely known sockeye salmon stronghold). In addition to changes in abundance, returning salmon to this region are smaller than in the past, primarily because individuals are returning to spawn at a younger age. Because old fish are typically larger given they have more time at sea to grow, shifts towards younger fish translates into less dollars per fish for commercial harvesters, fewer calories per fish for salmon-dependent people, and perhaps less enjoyment by anglers.

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# Salmon and people

Middle-river fisheries are a mix of mostly nonlocal personal use dipnet fishermen in the Chitina subdistrict, and local fish wheel or dipnet fishermen in the Glennallen district (Fall and Simeone 2010). In the lower river, lucrative commercial fisheries harvest world-renowned and heavily marketed Copper River Kings, but access rights to these fisheries are becoming increasingly held by nonlocal and nonresident fishermen (Gho 2014; Naves 2015).

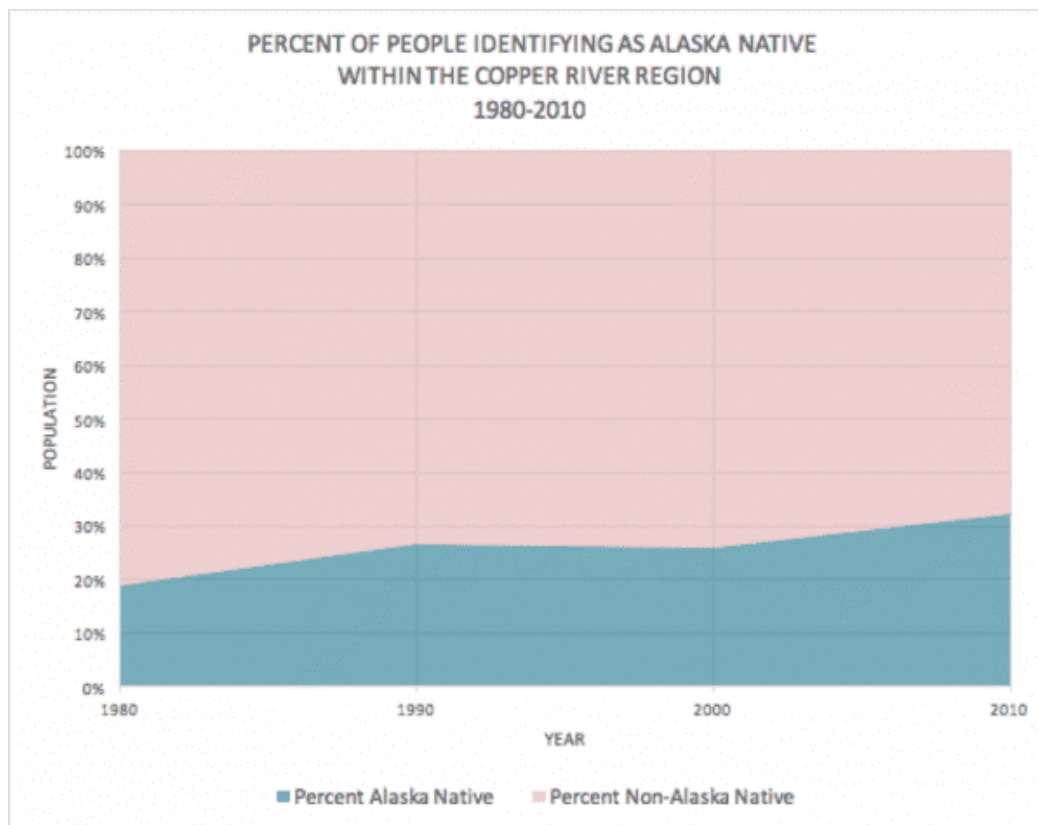
A popular sport fishery for coho salmon is growing in the Copper River delta and has faced some of the same challenges as other sport fishing destinations in the state, such as traffic congestion and decreased habitat quality in high-use areas (Lang 2010). Though other resources, such as moose and berries, are important subsistence resources for the Indigenous people of the region, salmon remains as [cultural keystone species](#) for the Ahtna people.



*Photo: Chistochina under a late December moon. By Wilson Justin*

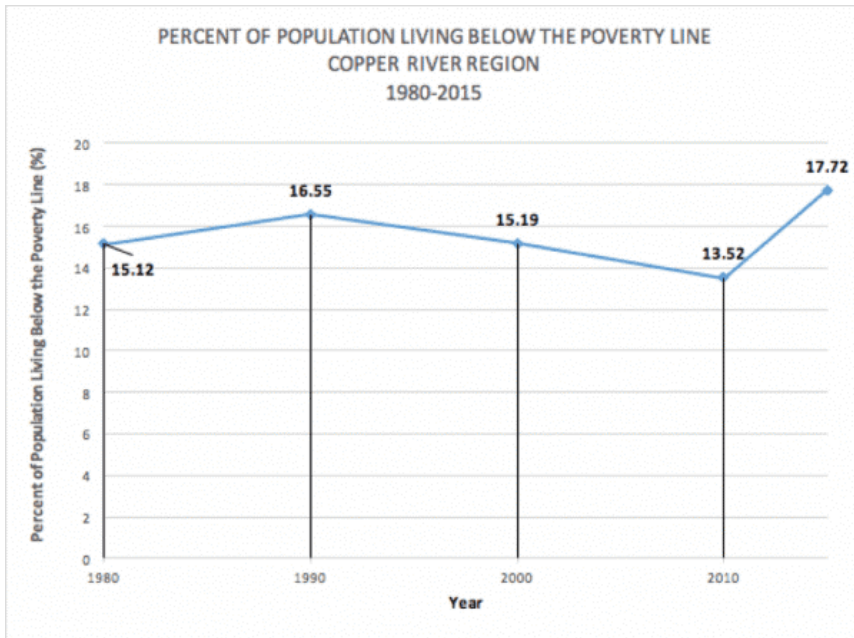
The Copper River personal use fishery near Chitina is one of the most popular personal use fisheries in the state, due largely to road access from the state's two largest population centers. A study from the 1990s aimed to quantify the value per fishing trip within this fishery for personal use and subsistence fishermen. The resulting estimated value per personal use/subsistence permit (i.e., consumer surplus) in 1990 ranged from \$72.03 to \$80.45, depending on whether the opportunity costs were based on the 30% or 60% wage rate. This means that the model assumed that a household going fishing would be foregoing either 30% or 60% of its income for the time that it spent fishing. The value of the personal use and subsistence fisheries on the Copper River ranged from \$516,851 to \$579,426 though expressing the importance of these connections to salmon in dollars tells only one part of the important story (Henderson et al. 1999).

[Click here](#) for a story and photographs by Nathaniel Wilder to get a taste for respecting and valuing red salmon in the Copper River region.

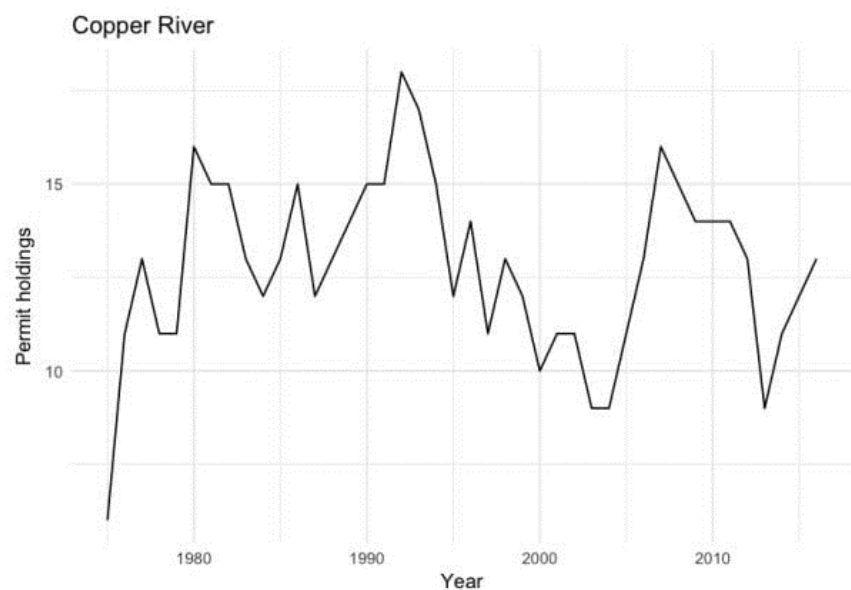


Census questionnaires in 2000 and 2010 allowed reporting of Alaska Native in combination with other ethnicities, whereas 1980 and 1990 did not allow for this option. The data presented here for 2000 and 2010 represents all people identifying as Alaska Native, either alone or in combination. United States 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](https://doi.org/10.5063/F1XW4H3V)



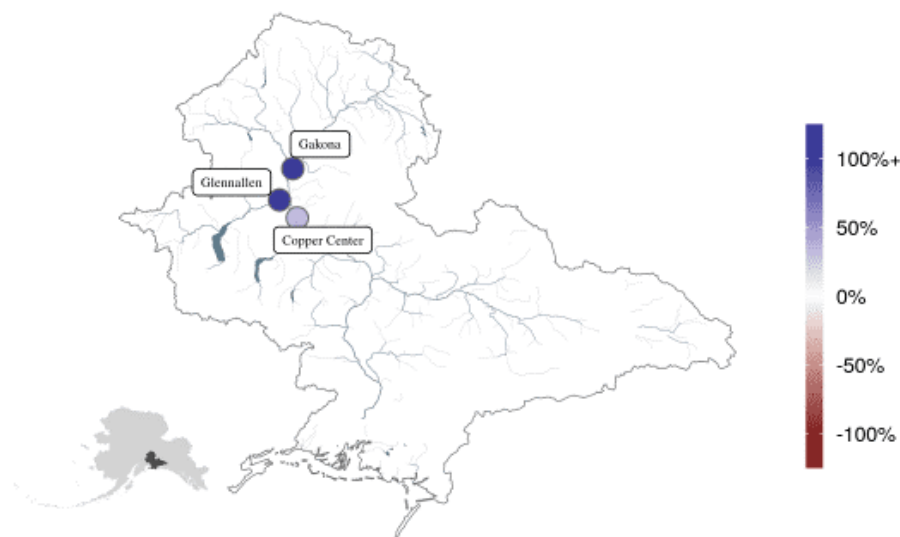


Percent of the population of the Copper River region living below the poverty line 1980 - 2015. United States Census Bureau, Juliet Bachtel, John Randazzo, and Erika Gavenus. 2018. *Alaskan Population Demographic Information from Decennial and American Community Survey Census Data, 1940-2016*. Knowledge Network for Biocomplexity. [doi:10.5063/F1XW4H3V](https://doi.org/10.5063/F1XW4H3V)



Commercial fishery permit holdings among communities in the Alaska Peninsula and Aleutian Islands from 1975 to 2016. Commercial Fisheries Entry Commission (CFEC) Public Permit Holders by Community of Residence 1975-2016. Knowledge Network for Biocomplexity. [doi:10.5063/F189144V](https://doi.org/10.5063/F189144V).

## Percent Change from Number of Initially Issued Commercial Permits to Number of Permits in 2016



*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. Commercial Fisheries Entry Commission (CFEC) Public Permit Holders by Community of Residence 1975-2016. Knowledge Network for Biocomplexity. [doi:10.5063/F189144V](https://doi.org/10.5063/F189144V).*

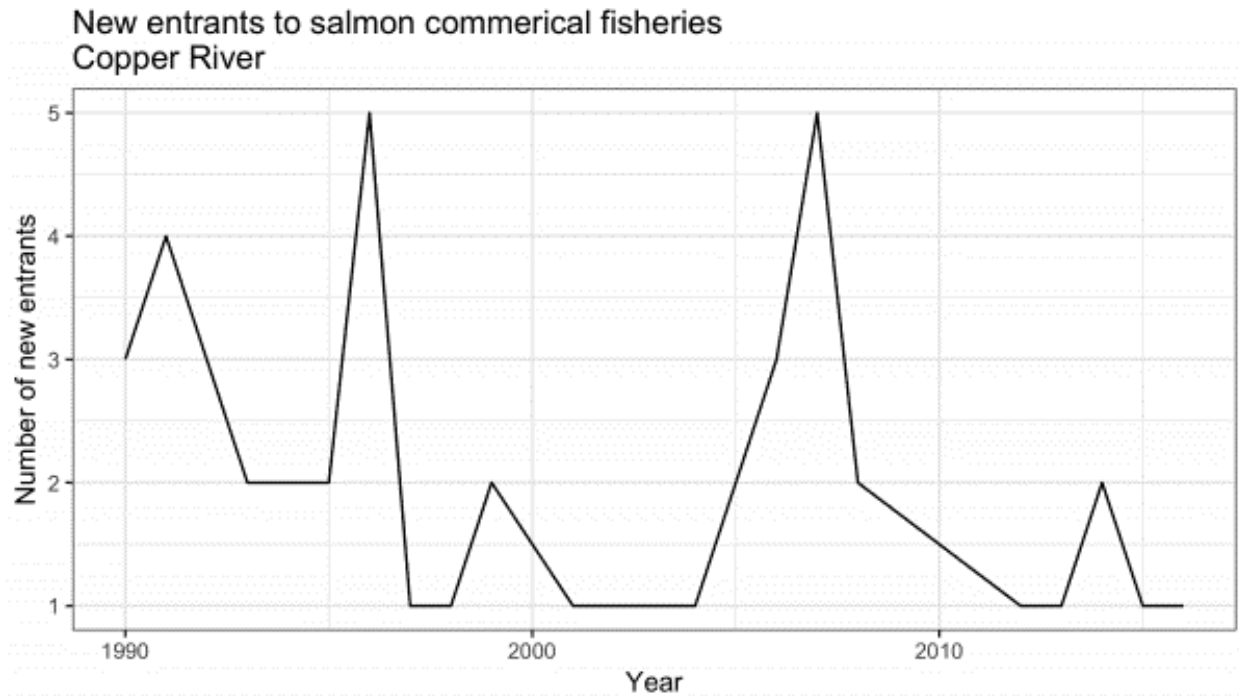
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## Salmon and economy

The Copper River salmon fishery is the state's sixth largest in value having generated \$1.6 billion in revenue since 1975 (inflation-adjusted 2017 dollars) and the state's seventh largest in volume. The Copper River sockeye fishery is also highly dependent on hatchery production. The variability in revenues generated in this fishery has been historically below average. Only four regions have shown lower variability making this fishery a relatively good bet for permit holders. Also, comparing pre-2000 and post-2000 period, harvest revenues have seen record years in the post-2000 period, a pattern only observed in salmon regions that had significant hatchery production which is also partly responsible for the lower year-by-year revenue variability. Historically, the state has consistently invested in salmon enhancement in this region starting in 1980. It issued up to \$8 million annually in loans to hatcheries in the region.

Subsistence, personal use, and sport fish catch are comparatively small compared to the commercial catch, but of importance to local subsistence culture and personal use fishers from urban areas of the state. Striking and not comparable to any other

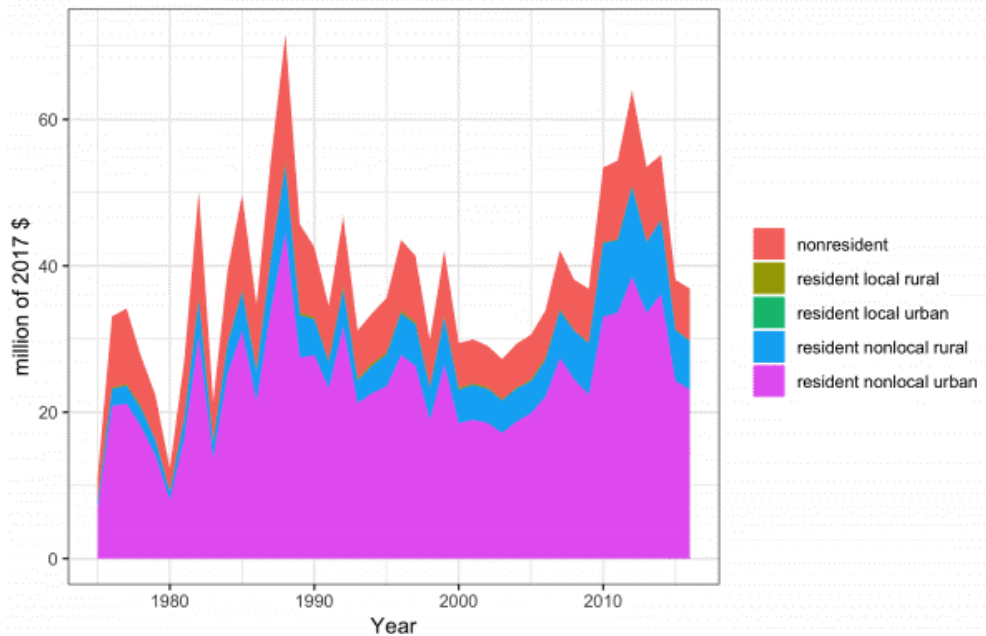
fishery in the state, the local share of harvest revenues is insignificant. Historically, two thirds of harvest revenue have gone to nonlocal Alaska residents residing in the urban part of the state, while the remaining third was shared among permit holders residing outside Alaska and nonlocal rural residents of Alaska (e.g. residing in the neighboring Prince William Sound or Southeast region).



*Number of new entrants to salmon commercial fisheries in the Copper River region, 1990 - 2016. Commercial Fisheries Entry Commission CFEC and Tobias Schwoerer. 2016. Commercial Fisheries Entry Commission Public Permit Database from 1975-2016. Knowledge Network for Biocomplexity. [doi:10.5063/F1CV4G17](https://doi.org/10.5063/F1CV4G17)*

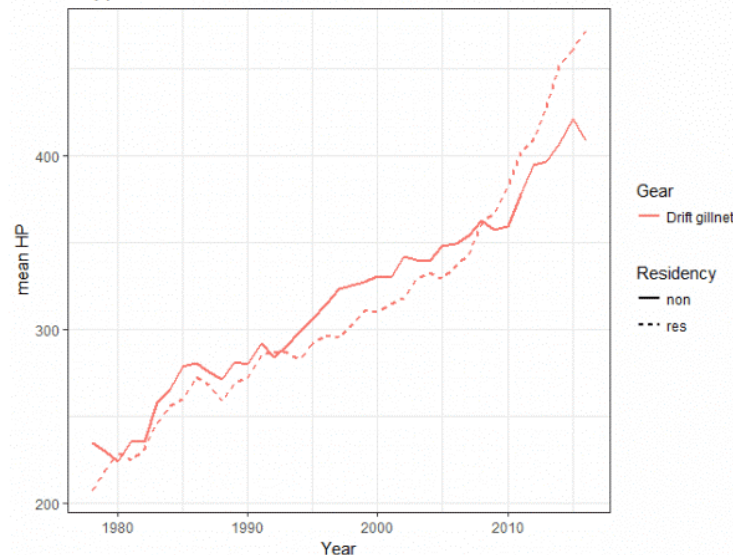


### Salmon Fisheries Real Harvest Revenue by Permit Owner Residency Copper River



Salmon fisheries real permit earnings in the Copper River region by permit owner type, 1975 - 2016. Tobias Schwoerer. Regional commercial salmon permit earnings by residency status, Alaska, 1975-2016. Knowledge Network for Biocomplexity. [doi:10.5063/F1WW7FZ2](https://doi.org/10.5063/F1WW7FZ2).

### Mean Horse Power of Salmon Fishing Fleet by Gear and Owner Residence (1978-2016) Copper River



Mean horsepower of salmon fishing fleets in the Copper River Region, by gear and owner residence, 1978 - 2016. 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](https://doi.org/10.5063/F14F1P2Q)

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# Salmon and subsistence

## State regulatory framework

In 2018, there were seven sets of regulations governing subsistence and personal use fishing in the two Copper River districts of the Prince William Sound Management Area. In the Copper River District, where the river empties into the Gulf of Alaska near the community of Cordova, a state-managed subsistence fishery took place in waters open to commercial fishing. Through 2017, fishing was only open concurrent with commercial fishing, but the Board of Fisheries created fixed openings on Saturdays beginning in 2018. Gillnets are legal gear, with household annual limits of 15 salmon for a household of one; 30 salmon for a household of two; and ten salmon for each additional household member, with a limit of five Chinook salmon per permit. Additionally, federal regulations allowed subsistence fishing with rod and reel in freshwater; the primary location near Cordova was Ibeck Creek.



*Photo: Wilson Justin observes the operation of a fish wheel at his family fishing site in Chistochina on the Copper River, 2017. Source: Steve J. Langdon*

In the Chitina Subdistrict of the Upper Copper River District, a state managed personal use dip net fishery is open from June 7 through September 30, with openings each week established by emergency order. A permit is required, with annual limits of 15 salmon for a household of one; 30 salmon for a household of two; and ten salmon for each additional household member, with a limit of one Chinook salmon per permit. Beginning in 2017, a \$15 fee was charged for a Chitina Subdistrict personal use permit. In addition, there was a federally managed subsistence fishery with dip nets, fish wheels, or rod and reel, open only to qualified local rural residents who obtained a federal permit.

In the Glennallen Subdistrict, there was a state managed subsistence fishery with fish wheels or dip nets, with harvest limits of up to 200 salmon for a one-person household and 500 salmon for a household of two or more. There was also a limit of five Chinook salmon if fishing with a dip net. The state season runs from June 1 through September 30. Federal regulations for the Glennallen Subdistrict were similar, although rod and reel were also allowed and the season opened on May 15. AD&G and the National Park Service each issued permits for this fishery; ADF&G compiles the harvest data from both programs at the end of the season.

Finally, state and federal regulations allowed fishing with fish wheels, dip nets, and spears (in Tanada Creek only) at the former village of Batzulnetas in the upper Copper River upriver from the Glennallen Subdistrict. Federal regulations allowed qualified local rural residents to fish from May 15 to September 30 unless closed by emergency action. A separate permit was required.

The Board of Fisheries has established ANS findings for stocks of the Copper River as follows (5 AAC 01.616(b)):

In the Copper River District:

- In a year in which commercial fisheries operate: 3,000 – 5,000 salmon
- In a year in which the harvestable surplus does not allow a commercial fishery: 19,000 – 32,000 salmon.

In the Glennallen Subdistrict:

- That portion from the southern boundary to the Tonsina River: 25,500 – 39,000 salmon
- That portion from the Tonsina River to the Gakona River: 23,500 – 31,000 salmon
- That portion from the Gakona River to the Slana River and the Batzulnetas Area: 12,000 – 12,500 salmon

Note that the ANS for the Copper River District acknowledges the role of retention of salmon from commercial fisheries for home use (“home pack”) in Cordova and is based both on subsistence permit returns and ADF&G household surveys that documented retention of commercially-harvested salmon. Splitting the ANS in the

Glennallen Subdistrict recognizes the different use patterns and harvest trends in three portions of the river.

Subsistence fishing regulations in the Copper River Basin have been the subject of litigation, particularly in a series of challenges consolidated as the Katie John case, a case study found in the regional governance section. For a summary and a case study regarding classification of the Chitina dipnet fishery, see the governance section.

## Subsistence salmon harvest patterns

Figure 6-1 illustrates harvest trends in the six subsistence and personal use fisheries of the Copper River from 1977 through 2016 (combining harvests with state and federal permits in the Glennallen Subdistrict). There has been a relatively steady growth in harvests in the upper Copper River fisheries; throughout its history, growth in the Chitina dip net fishery has been due to participation by residents of Alaska's population centers in Fairbanks, Anchorage, and the Matanuska-Susitna Borough (Fall and Stratton 1984, Fall and Simeone 2010), and since the early 1990s, this has been the case for the Glennallen Subdistrict as well (see below). As shown in Figure 6-2, except for the small federal subsistence fishery in freshwaters of the Copper River District (harvest of 1,045 salmon in 2015 and 800 salmon in 2016), all of the Copper River fisheries are dominated by sockeye harvests. For all fisheries combined for the period 1989 to 2016, 96% of the harvest was sockeye salmon, followed by much smaller numbers of Chinook (3%) and coho (1 %). Pink and chum salmon are not present in the upper Copper River District.

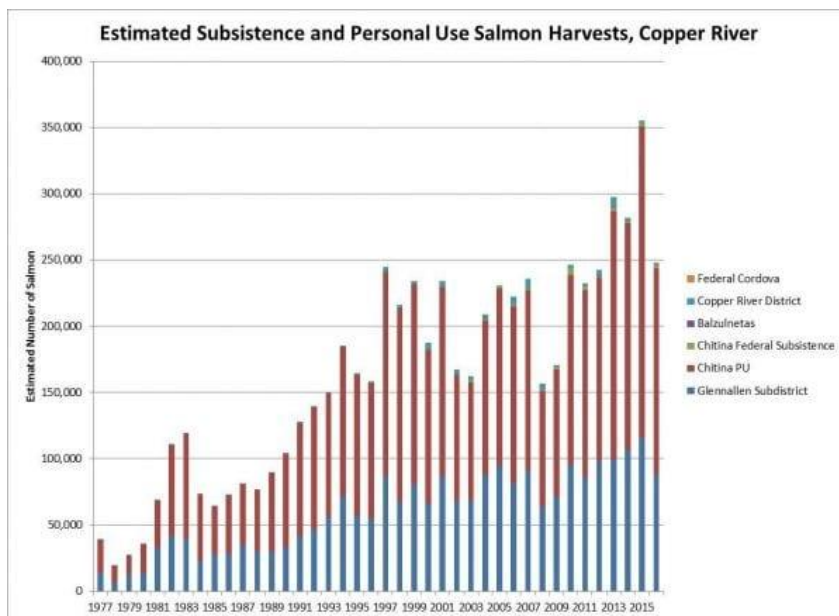


Fig. 6-1. Alaska Department of Fish and Game, Division of Subsistence. Subsistence and personal use harvest of salmon in Alaska, 1960-2012. Knowledge Network for Biocomplexity. [doi:10.5063/F18P5XTN](https://doi.org/10.5063/F18P5XTN).

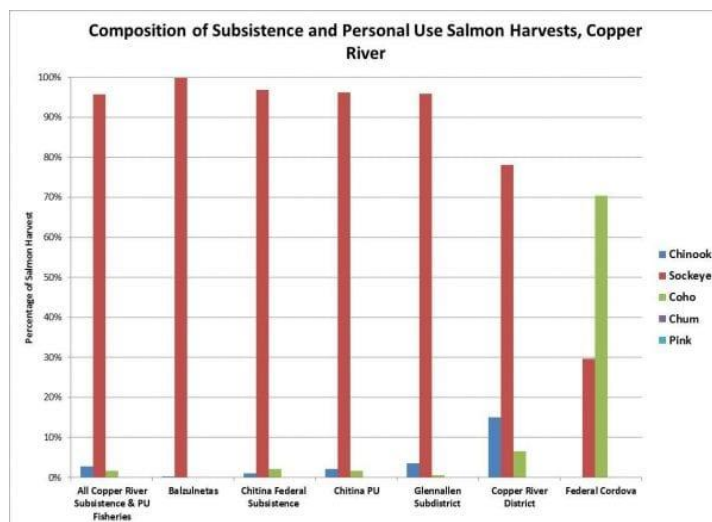


Fig. 6-2. Alaska Department of Fish and Game, Division of Subsistence. Subsistence and personal use harvest of salmon in Alaska, 1960-2012. Knowledge Network for Biocomplexity. [doi:10.5063/F18P5XTN](https://doi.org/10.5063/F18P5XTN).

Based upon the most recent comprehensive household harvest surveys, salmon make up about 51% of the noncommercial harvest wild resources in Copper River communities, including Cordova and the communities of the Copper River Basin (Figure 6-3).

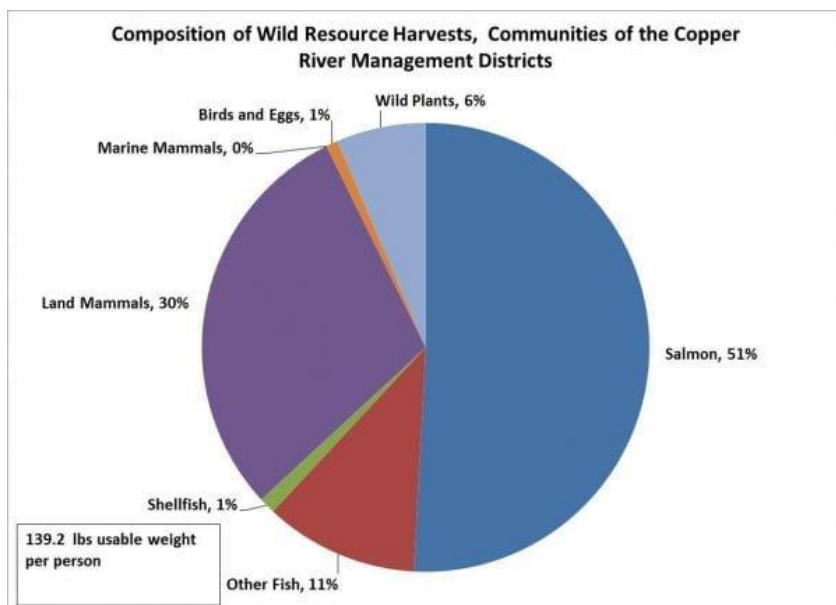


Fig. 6-3. Alaska Department of Fish and Game, Division of Subsistence. 2018. Subsistence harvest information by region, community, resource, and year, 1964-2015. Knowledge Network for Biocomplexity. [doi:10.5063/F1S75DNC](https://doi.org/10.5063/F1S75DNC).



From 1984 through 1989 (except 1985), only local residents of Copper Basin and Upper Tanana communities were eligible for state permits for subsistence fishing in the Glennallen Subdistrict. When the Alaska Supreme Court, the McDowell decision ruled the rural preference in state law unconstitutional, all Alaska residents became eligible for these permits. Although personal use fishing with dip nets (and for a time, fish wheels) had remained open to all Alaskans in the Chitina Subdistrict, fishing in the Glennallen Subdistrict was an attractive alternative for several reasons: seasonal limits were higher, there was no limit on Chinook harvests with fish wheels, there were no weekly closures, and fishing with fish wheels, as well as dip nets, was allowed within the entire subdistrict. Also, the lower reaches of the subdistrict can be reached by boat from the road-connected community of Chitina.

Once the Glennallen Subdistrict subsistence fishery opened to all Alaskans, nonlocal participation rapidly grew (Figure 6-4). By 1994, nonlocal permit holders outnumbered local fishers for the first time. While the number of local permit holders remained steady over the period 1990 – 2016 (averaging 388 permits, with a range of 350 in 2009 to 433 in 1994), the number nonlocal permit holders continued to grow, setting a record at 1,730 in 2016, 83% of all permits issued (Figure 6-5). By 1997, harvests by nonlocal permit holders exceeded those of local residents (Figure 6-6), and by 2016 accounted for 74% of the total harvest in the subdistrict (Figure 6-7). While local residents' harvests remained steady (averaging 31,666 salmon from 1990 to 2016, with a maximum in 1994 of 41,885), due to the growing participation of nonlocal fishers, harvests in the fishery soon reached record levels, exceeding 100,000 salmon for the first time in 2014. Local fishers continued, however, on average, to harvest more fish than nonlocal permit holders per permit (in 2016, local fishers averaged 64 salmon per permit, nonlocal residents 38 salmon), likely reflecting local traditions of salmon use and a higher dependence on wild foods (Figure 6-8).

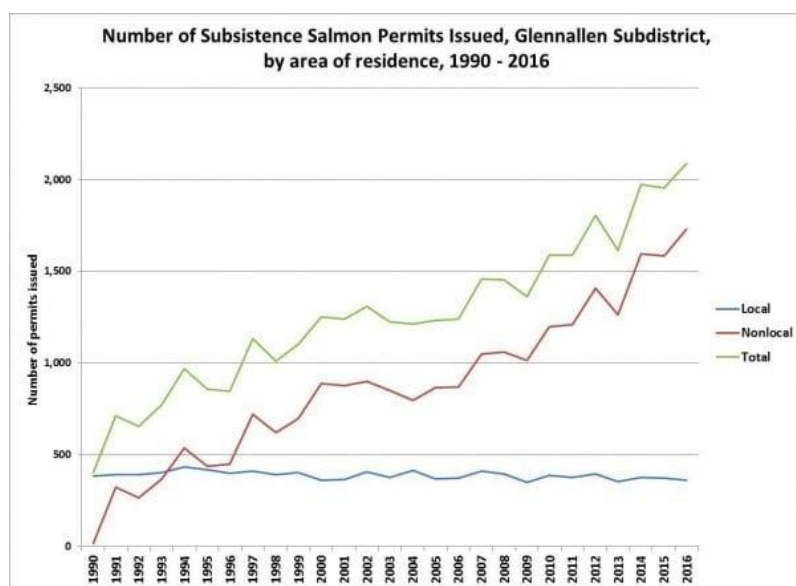


Fig. 6-4. Alaska Department of Fish and Game, Division of Subsistence. Subsistence and personal use harvest of salmon in Alaska, 1960-2012. Knowledge Network for Biocomplexity. [doi:10.5063/F18P5XTN](https://doi.org/10.5063/F18P5XTN).



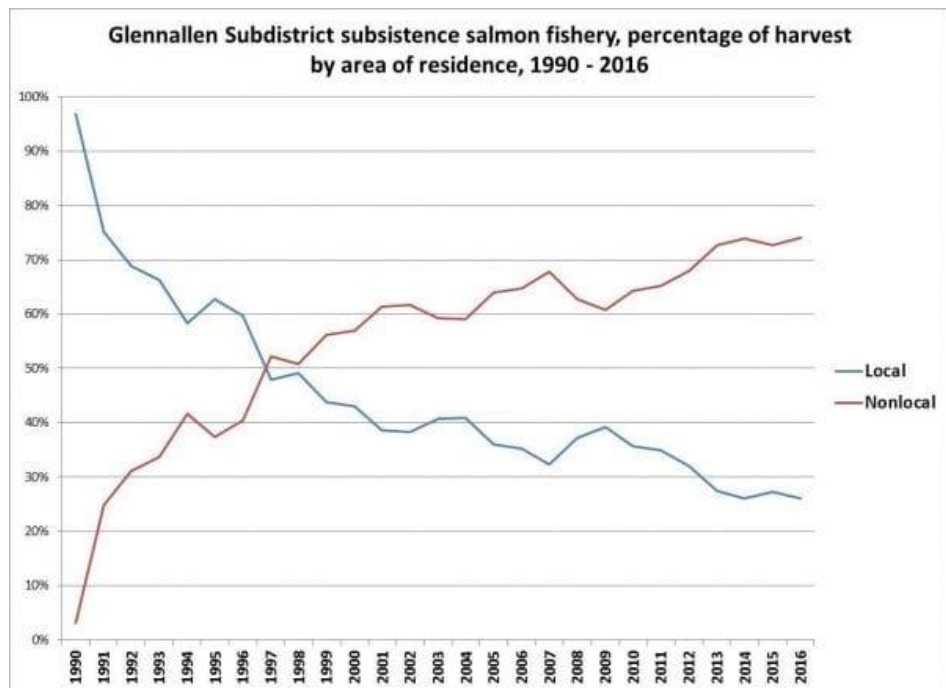


Fig. 6-5. Alaska Department of Fish and Game, Division of Subsistence. Subsistence and personal use harvest of salmon in Alaska, 1960-2012. Knowledge Network for Biocomplexity. [doi:10.5063/F18P5XTN](https://doi.org/10.5063/F18P5XTN).

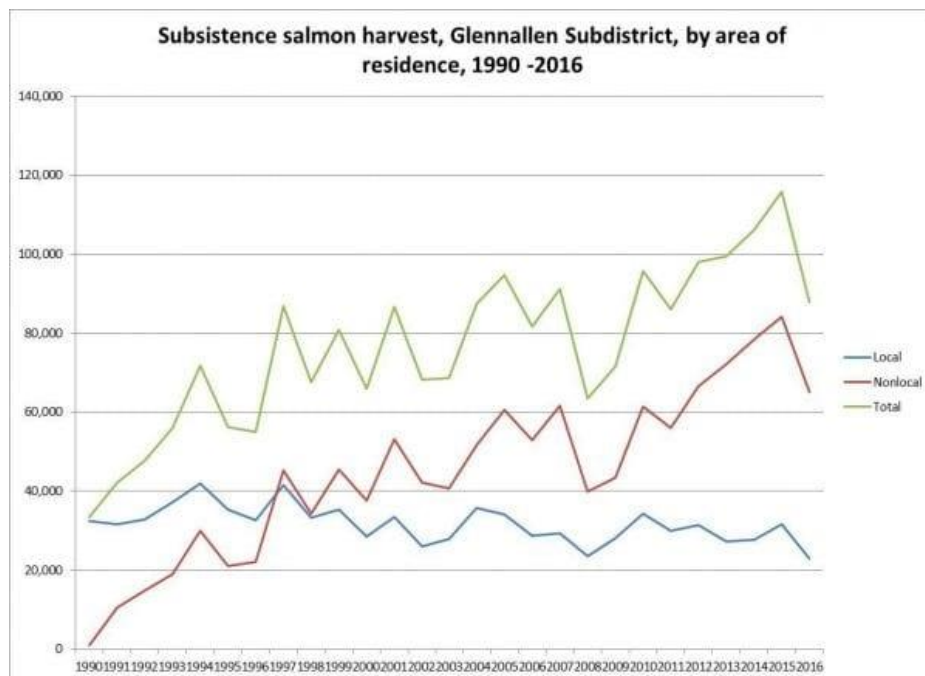


Fig. 6-6. Alaska Department of Fish and Game, Division of Subsistence. Subsistence and personal use harvest of salmon in Alaska, 1960-2012. Knowledge Network for Biocomplexity. [doi:10.5063/F18P5XTN](https://doi.org/10.5063/F18P5XTN)

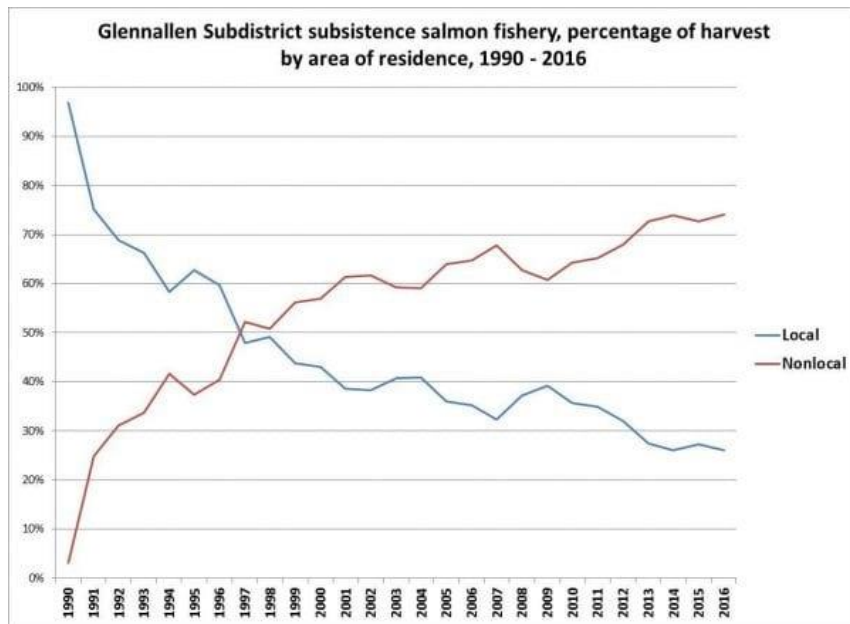


Fig. 6-7. Alaska Department of Fish and Game, Division of Subsistence. Subsistence and personal use harvest of salmon in Alaska, 1960-2012. Knowledge Network for Biocomplexity. [doi:10.5063/F18P5XTN](https://doi.org/10.5063/F18P5XTN)

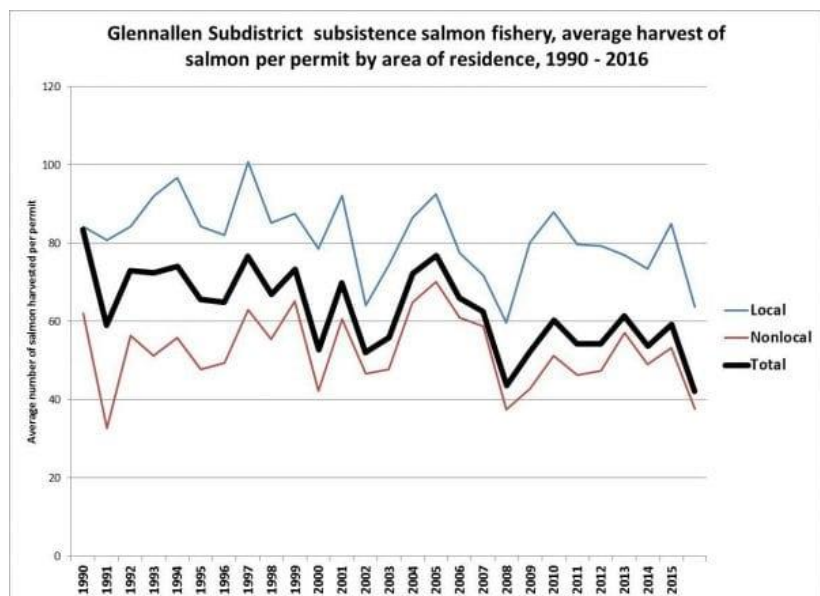


Fig. 6-8. Alaska Department of Fish and Game, Division of Subsistence. Subsistence and personal use harvest of salmon in Alaska, 1960-2012. Knowledge Network for Biocomplexity. [doi:10.5063/F18P5XTN](https://doi.org/10.5063/F18P5XTN).

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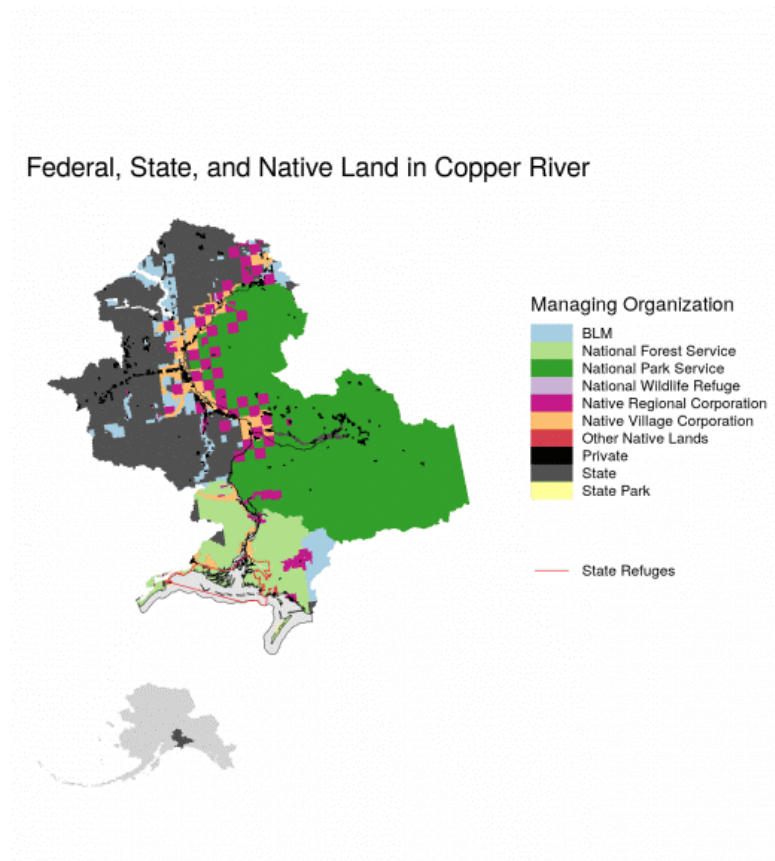
## Salmon and governance

The Copper River valley above Chitina is the focus of intense interest in salmon by subsistence, sports, and personal use fishermen, most of whom do not reside in the region but who are able to access the river due to the well-established road system. Governance of the Copper River salmon and salmon fisheries takes place largely through state processes. Prior to in-river harvest, Copper River salmon are taken by commercial drift gillnet fishermen in marine waters managed by the Alaska Department of Fish and Game including fishing that takes place in federal waters managed by the NPFMC.

Sport and personal use fisheries are prominent in the region as is reflected in both the Board of Fisheries process through the number of proposals submitted concerning the fishery and data from the Alaska Wildlife Troopers reporting that the Copper River region has the second highest number of personal use violations over the 2014-2017 period. The Wrangell-St. Elias National Park abuts the Copper River almost continuously from Chitina to the headwaters, and the Federal Subsistence Board has proposals to protect subsistence fishing. However, the Federal Subsistence Board has never closed these federal waters under the provisions of Title 8 to all but rural residents. Access to the Copper River and trespassing across posted Ahtna Native corporation lands has been a major concern of Ahtna fishermen due to the costliness of supervising their lands and the lack of State attention to the problem. In 2016, the Ahtna signed a cooperative agreement with the Department of the Interior creating the Copper River Natural Resource Commission, one purpose of which is to find ways to improve the Ahtna subsistence salmon fisheries. Between 2000-2018, there were no disaster declarations for Copper River salmon fisheries.

Territorial jurisdiction in the Copper River basin is shown in the figures below. The east side of the Copper River from Chitina to the headwaters of the Copper River are part of the Wrangell-St. Elias National Park. Both the east and west sides of the Copper River valley below Chitina, including the mouth of the Copper River, are in the Chugach National Forest. The State of Alaska controls a large majority of the land to the east of the Copper River. The Bureau of Land Management has jurisdiction over lands along the Richardson Highway toward Delta Junction. Alaska Native corporations, village and regional, own property along the Copper, Chitina and Gulkana Rivers. Regional corporation lands are part of an extensive patchwork of ownership, much of which lies in the Wrangell-St. Elias National Park. Private land holdings are concentrated along the highway system and as in holdings in the Wrangell-St. Elias National Park. Many park holdings date from days of copper mining at the Kennecott copper mine, up the Chitina River.

There are no boroughs in the Copper River basin currently.



Emily O'Dean and Jeanette Clark. *Land status in Alaska*, 2018. Knowledge Network for Biocomplexity. [doi:10.5063/F1NK3C9X](https://doi.org/10.5063/F1NK3C9X).

There are eight Ahtna tribes in the Copper River region. The Ahtna Inter-Tribal Resource Commission established in 2016 operates under a MOU with the Department of Interior to increase Ahtna involvement in natural resource management on federal lands through the development of a local advisory commission and a regional management plan to allow for improved decision making in the future.

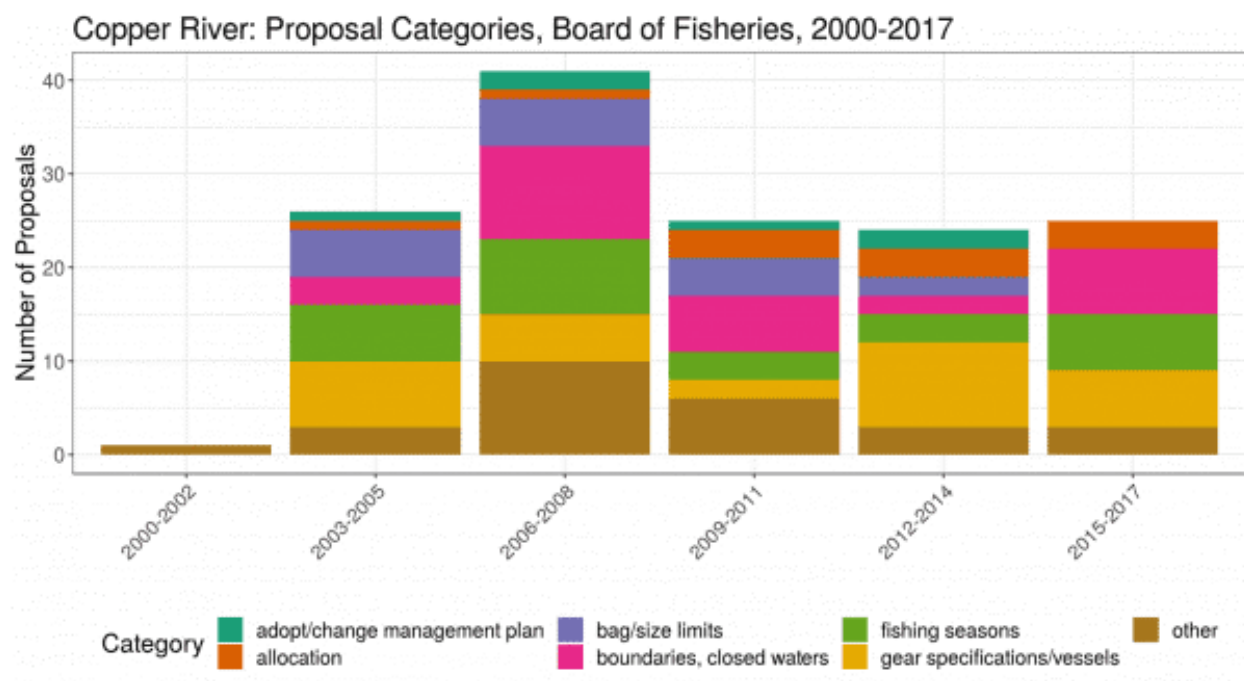
Sports fishermen and personal use fishermen using the Copper River have organized associations to address policy issues of relevance to their users and actively pursue their interests through proposals to the Board of Fisheries.

The Copper River Watershed Project, headquartered in Cordova, seeks to address major environmental challenges such as a possible spill from the oil pipeline, culverts and storm water runoff to assist in protecting the Copper River basin habitat. They work in cooperation with government, environment, and fishermen's organizations. In recent years they have replaced six significant culverts in the region enhancing salmonid passage (see Case Studies).

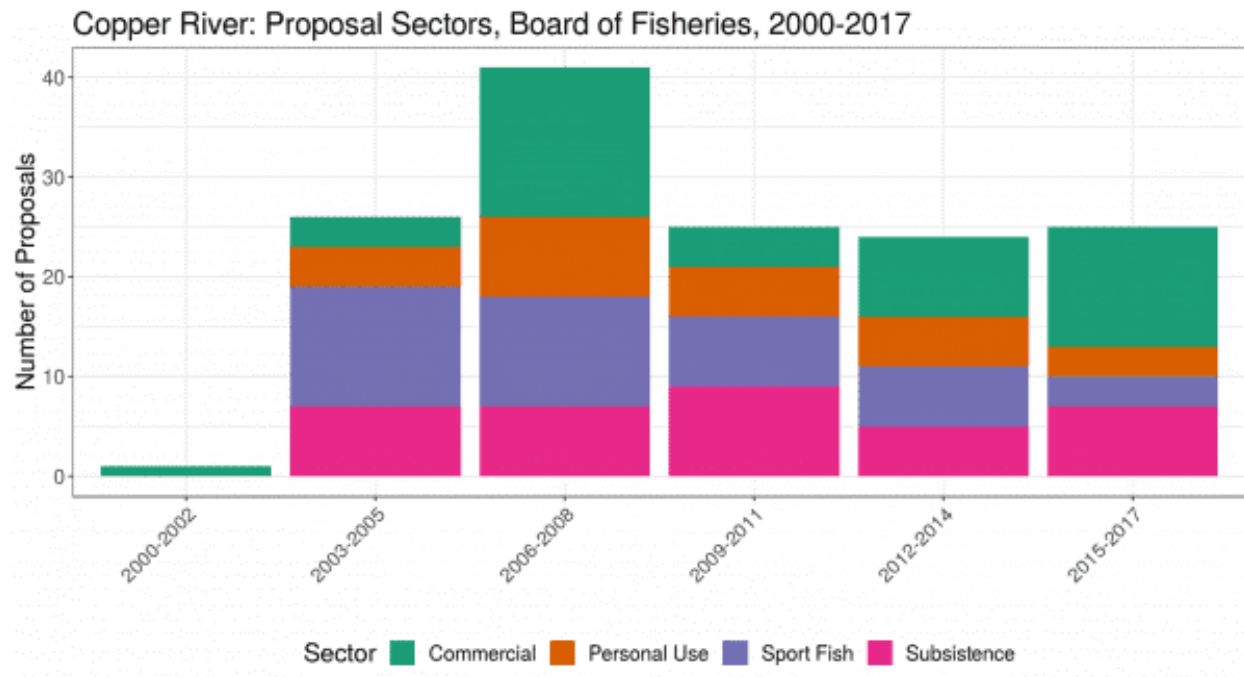
## Board of Fisheries

Copper River ranks sixth among the regions in number of proposals submitted to the Board of Fisheries over the study period. In the most recent period, boundaries, gear/vessels specifications, and fishing seasons were the most numerous categories for proposals. Subsistence and personal use are the most numerous sectoral proposals.

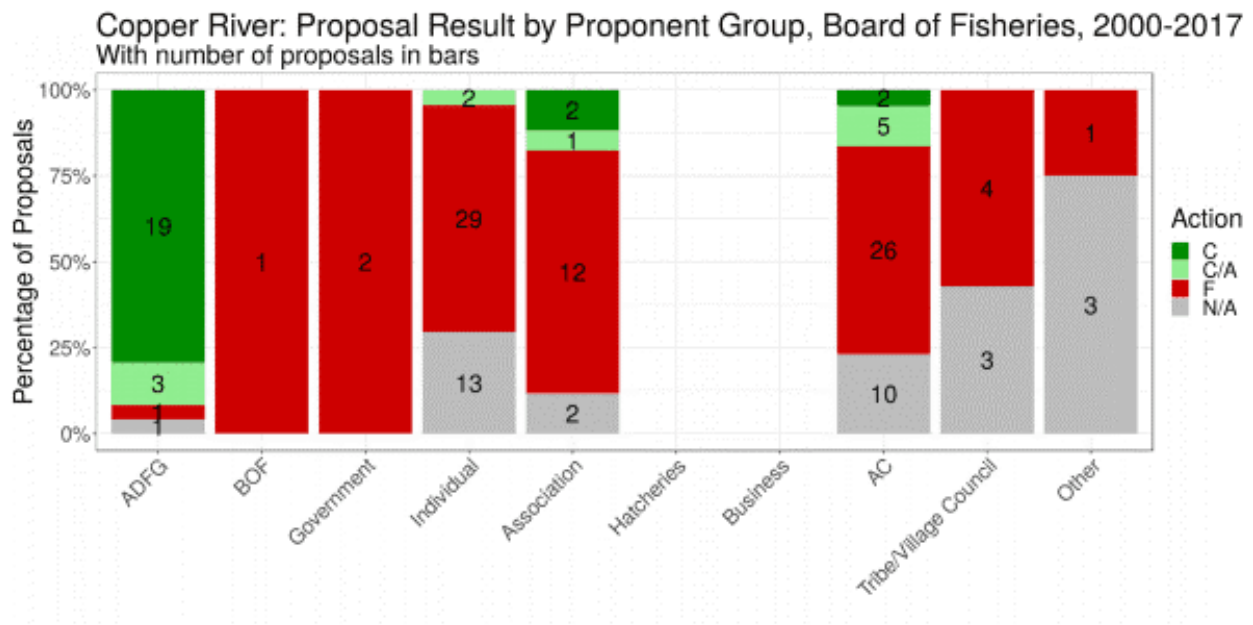
Proposals concerning Copper River salmon fisheries by proponents other than ADF&G have had very low rates of success over the research period. Advisory committee success has been about 20% and no Village Council/tribal proposal has been successful.



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](https://doi.org/10.5063/F1D21VW7)



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](https://doi.org/10.5063/F1D21VW7)



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](https://doi.org/10.5063/F1D21VW7)



## Advisory Committees

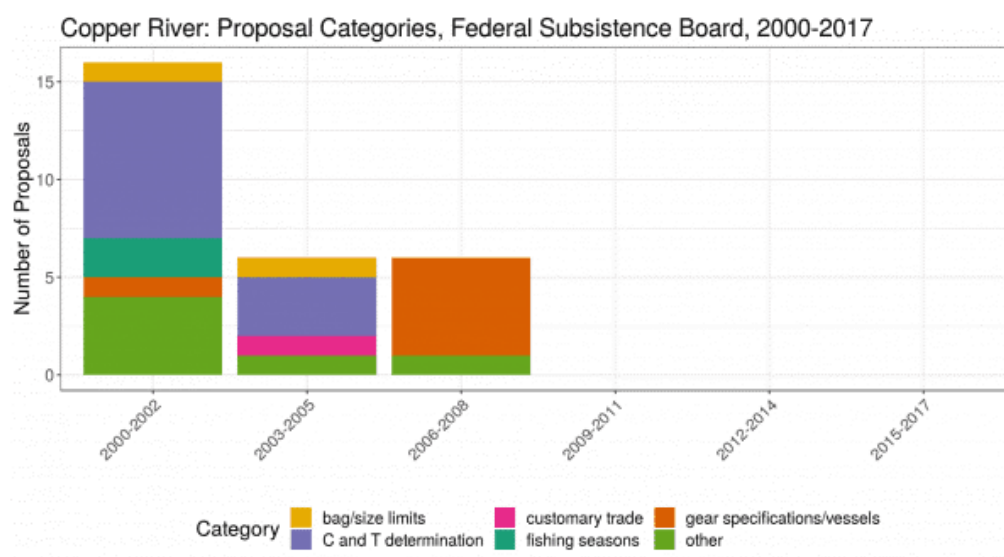
There are three committees in the region, all representing rural communities, and all connected by road. One council represents one community, one represents two Ahtna communities with designated seats in the upper Copper River valley, and one represents eight communities with designated seats in the middle Copper River valley. The locations of the committees can be seen [here](#). The single community advisory committee has met on average more than once a year from 2000-2017 and the others have averaged about one meeting per year.

## Federal Subsistence Board

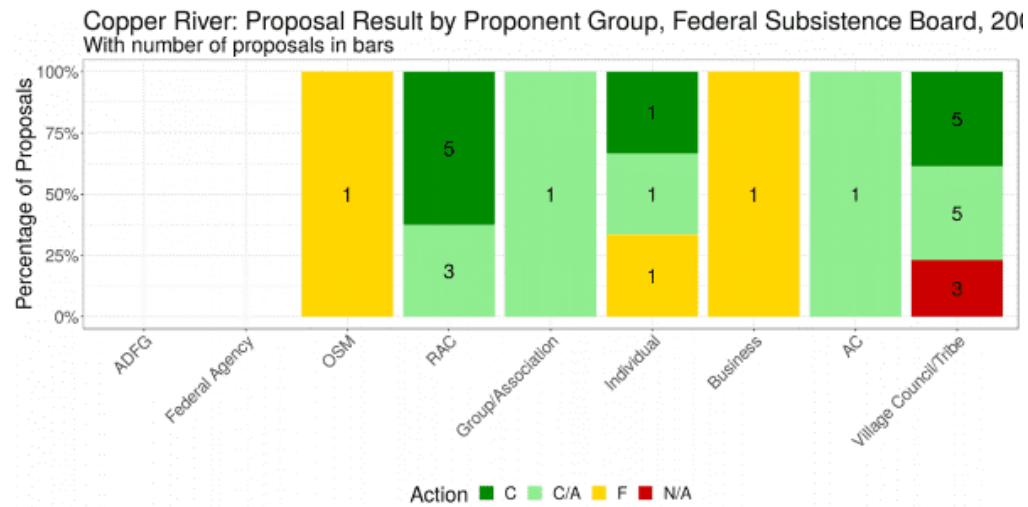
Copper River federal subsistence proposals are submitted to Region 2 Regional Advisory Council for consideration. Over the study period, 28 proposals were submitted to the RAC concerning Copper River subsistence. No proposals have been submitted in the past ten years.

No proposal was submitted during the study period to close federal waters on the Copper River. Proposals submitted by Village Council/Tribe proponents were the most frequent and the most successful from 2000-17 with ten out of thirteen proposals passing.

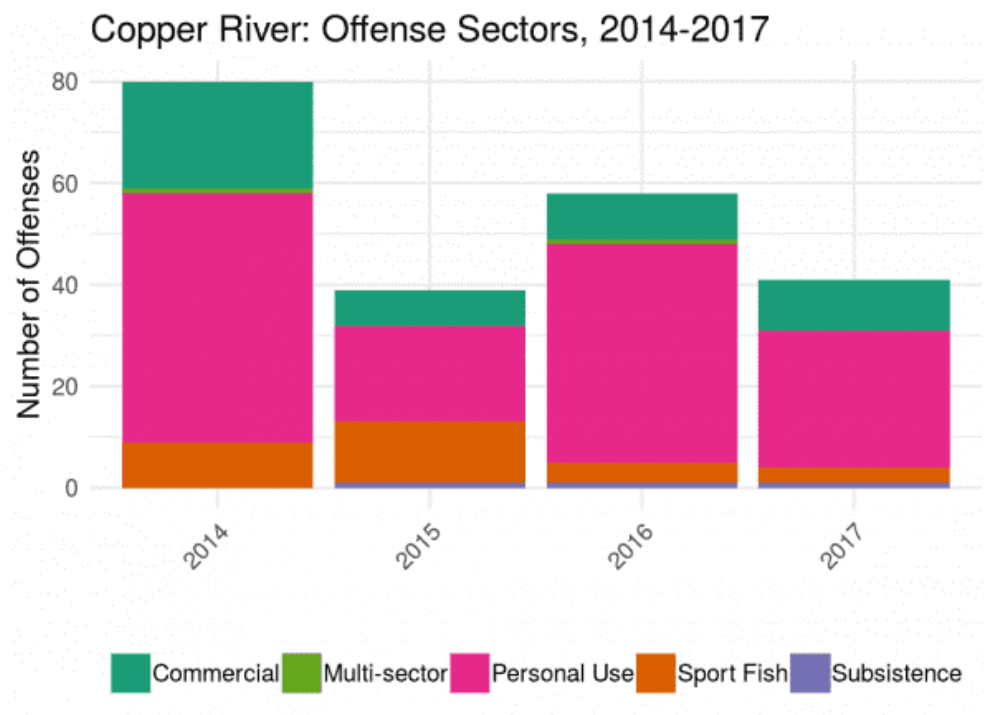
Enforcement efforts by the Alaska Wildlife Troopers are high in the Copper River region due to the existence of road accessible sport, personal use, and subsistence utilized by residents of Fairbanks, Anchorage, and the Mat-Su Valley. Citations for illegal behavior in the Copper River fisheries ranked fourth with 248 citations from 2014-2017. Personal use fisheries violations were most frequent, a reflection of the high level of participation in that fishery.



Taylor Brelsford, Steve Langdon, and Jeanette Clark. 2018. *Alaska Federal Subsistence Board Proposals 2000-2015*. Knowledge Network for Biocomplexity. [doi:10.5063/F1HT2MMN](https://doi.org/10.5063/F1HT2MMN)



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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](https://doi.org/10.5063/F1VH5M32)

# Development Concerns

Development issue concerns in the Copper River region are significant. The Trans-Alaska Pipeline travels over 500 miles from north to south through the Copper River valley. It crosses the river itself or major salmon spawning tributaries five times. The potential for an oil spill entering the Copper River and traveling downstream has been identified by environmental and fishermen's groups as exceedingly high due to the lack of adequate investment in planning and response capabilities for such an event. The Copper River Watershed Project has spearheaded an effort to create a citizen monitoring and oversight group. The effort is supported by fishermen's and environmental groups, however there has been no response by the state, federal government or oil industry to develop such a program.

The Copper River and its salmon supporting tributaries is paralleled by stretches of the Glenn and Richardson Highways for much of its course above Chitina. The highways and associated road systems cross over the river and tributaries in numerous locations. Associated with these forms of development are culverts and storm water run-off, both of which have proven to be major threats to salmonid reproduction in other areas such as Washington and Oregon. The Copper River Watershed Project has undertaken culvert assessment and in coordination with state agencies – Department of Transportation and Habitat – assisted in identifying and replacing six significant culverts along the Copper River Valley. However, the number of culverts and crossings of the Copper River to be repaired and replaced is extremely high. Funding availability for such projects is scarce and repair/replace opportunities are infrequent.



*Fish-friendly culverts: Lined with streambed material, this culvert spans the full width of the natural stream channel, providing more natural conditions for fish passage. Photo: Copper River Watershed Project*

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# The Katie John Decision – Determining Extent of Federal Jurisdiction over Customary and Traditional Salmon Fisheries



*Ahtna leader Wilson Justin stands at the memorial to Katie John erected at Batzulnetas, the fish camp at which she fought for the right to continue customary and traditional salmon fishing.  
Credit: Steve J. Langdon*

When US Army explorer Lt. Henry Allen arrived at the headwaters of the Copper River in 1885, he found the local people engaged in harvesting and processing salmon to use for the winter food as they had been for centuries. He named one of these meeting places *Batzulnetas* – an Anglicization of the name for the leader of the local group. For Ahtna, salmon were a foundational food source with whom they had a special relationship in order to insure the return of salmon in the future.

Recent research has documented the extensive traditional knowledge about salmon held by the Ahtna and the difficulties the Ahtna have faced in maintaining their relationship with salmon following the coming of Americans (Simeone and Kari 2002, Simeone and McCall 2007, Simeone 2014, Simeone 2018). The first experience of impact came immediately following the establishment of a cannery on the Copper River below Chitina in 1915. Ahtna

observed that their harvests were sharply declining, and they complained to federal agents that salmon populations were being damaged. They asked the agents to have the cannery removed. Investigations by federal agents found that Ahtna subsistence harvests had fallen from nearly 44,000 fish in 1915 to 5,500 in 1918 (Simeone and McCall 2007:23).

Fisheries agents began implementing regulations on the commercial fishery in 1918 but runs did not recover and in 1921 commercial salmon fishing in the Copper River was prohibited. Commercial fishing was allowed to continue at the mouth of the river and subsequent years provided evidence that the commercial fishery seriously cut into Ahtna subsistence harvests and spawning escapements.

During these years, Ahtna used fish wheels for most of their harvests with dip nets and rod and reel also contributing. Ahtna were the overwhelming majority of salmon harvesters on the Copper River after the passage of the White Act in 1924, whose purpose was to regulate harvests to insure escapement until 1960 when the state of Alaska took over fishery management from the federal government (Simone and McCall 2007).

At Batzulnetas, traditional weirs and traps were banned by federal marshals in the 1940s. Katie John, a young woman at the time, had fished there and knew it as her family's ancestral fishing site and loved it. However, her family had to move from their customary and traditional site and so began fishing at Mentasta about 20 miles away where they continued their salmon fishing. In 1960 the newly created State of Alaska took over salmon management and in 1964 closed down the subsistence fishery at Batzulnetas and all other traditional salmon fishing sites in the upper Copper River. Despite the closure, Batzulnetas endured in the minds of the Upper Ahtna as a special place.

In 1971, under the terms of the Alaska Native Land Claims Settlement (ANCSA), aboriginal fishing and hunting rights of Alaska Natives were "extinguished" but with the proviso that Alaska Native subsistence needs were to be taken care of by state and federal policies. The State did not act to protect and provide for Alaska Native subsistence needs although a state law stating that subsistence was to be the priority for harvests when shortages occurred was passed in 1978. Nevertheless, the State continued the ban on subsistence harvests in the upper Copper River.

In 1981 the Alaska National Interest Lands Conservation Act (ANILCA) was passed placing much of Alaska land and waters in federal jurisdictions. Title 8 of the act provided a rural resident subsistence preference, distinguishing Alaska Native from non-Native bases. The priority was to be activated when resource strength could not accommodate users other than rural residents. State regulatory authority on federal lands was tied to the implementation of a similar policy for state resource allocation. In the early years after the passage of ANILCA, in 1984, Katie John and Doris Charles submitted a proposal requesting the Alaska Board of Fish to allow them to subsistence salmon fish at Batzulnetas. Their request was denied despite the fact that hundreds of thousands of salmon were being taken for commercial and sport purposes in the ocean and on the river below them.

In 1985, Katie John and two other elders filed suit to force the Board of Fisheries to open their fishery and won their case. In response, the State Board of Fish provided a limited,



highly restrictive and inadequate opening. Katie John returned to court and the state opening was struck down as too restrictive. Before the State Board of Fish could respond, the state supreme court held in the McDowell (1989) case that a rural (or place-based) preference was unconstitutional under the state constitution.

When the Alaska legislature chose not to pursue a constitutional change, the federal Secretaries of Interior and Agriculture began the process of providing for the ANILCA rural preference on federal lands. Initially, the federal government provided the same limited opening that had been determined to be inadequate in 1985. Katie John, using Native American Rights Fund (NARF) lawyers, petitioned for reconsideration of the regulation to which the federal agencies responded that Tanada Creek and the upper Copper River were navigable waters and that such waters were not considered “public lands” and therefore not subject to Title 8 jurisdiction.

Native American Rights Fund (NARF) lawyers, representing Katie John and other plaintiffs, filed suit stating that this construction of navigable waters was in error in that Section 102 of ANILCA states “the term ‘lands’ means land, waters, and interests therein...” In 1991, the question of whether navigable waters were included as part of public lands was litigated and it was determined by the Ninth Circuit of Appeals that the federal government indeed had an “interest” in “reserved water rights.” Further legal questions were also addressed in subsequent cases bringing about decisions over ownership of waters, submerged lands, and state compliance with federal law.

In March 1994 the case was argued with the previously opposed federal government now joining with Katie John concerning the federal “interest” in “navigable waters.” Less than a month later, the court concluded that the federal government, not the state, had the authority to regulate the taking of fish on “navigable waters” in “public lands” stipulating that the US government “holds title to an interest in navigable waters in Alaska.” The decision was appealed to the Ninth Circuit court that determined in April, 1995 that subsistence priority applies to inland navigable waters in which the United States has reserved water rights. Federal agencies then went on to determine which waters were included in that definition. These determinations in 1999 extended federal jurisdiction over inland “navigable waters” in or adjacent to federal conservation units, not including the general public domain lands managed by the Bureau of Land Management.

While the State and other interested parties explored the possibility of appealing the ruling to the Supreme Court, the Governor of Alaska decided not to pursue it. This decision paved the way for Katie John and the Upper Ahtna to be authorized by the Federal Subsistence Board (FSB) to return to Tanada Creek and engage in salmon harvesting and preservation at their “customary and traditional location.”



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