

# Alaska Park Science

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## *Commemorating ANILCA at 40*



# Alaska Park Science

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## ***We all live and work on Indigenous lands***

Encompassing 365 million acres, Alaska is the current and traditional homeland of hundreds of Indigenous cultures and language groups. Alaska has at least 228 federally recognized Tribes, numerous non-federally recognized Tribal entities, 12 Regional Native Corporations, 11 Native Regional Non-Profit Organizations, and over 200 Native village corporations. Indigenous organizations, Tribes, and communities are directly affected by the work that the National Park Service in Alaska does, and it is a privilege to live and work on their ancestral lands.

The history of colonization, as well as U.S. land and resource management in Alaska, has often exploited and harmed Indigenous people—the original stewards of this place’s lands, plants, animals, ecosystems, and sacred sites for at least the last 13,000 years. Here at the National Park Service in Alaska, we must continue to work in a variety of ways to reflect on this history and its legacy, and to move forward in a more thoughtful, respectful, and collaborative way in all aspects of our work. Indigenous leadership and knowledge systems have much to teach the U.S. governmental structure about moving from the more extractive, exclusive, and burdensome practices of the past to a healthier and more holistic systems approach. Under the leadership of Secretary Haaland and Director Sams, it seems that there is no better time than now to genuinely transform the way that we do our work. We welcome and value the expertise and input of our Indigenous colleagues, partners, fellow governmental representatives, community members, friends, and relatives in helping us shape the critical decades that lie ahead.

The Copper River viewed from the top of Simpson Hill near Tazlina.  
PHOTO BY JOEL IRWIN, COURTESY OF AHTNA, INCORPORATED



# Commemorating ANILCA at 40: A Reflection on the Colossal Legislation and its Effects on Alaska's Peoples, Resources, and Conservation

Joshua Ream, Shina duVall, and Nicole Braem,  
National Park Service

ANILCA is the defining conservation law of Alaska. With a stroke of a pen, President Carter doubled the size of the National Park System. Alaskans experience the consequences of ANILCA as both a blessing and a burden. In this issue, we explore many of the facets and perspectives of ANILCA and what it means to Alaskans and to the National Park Service.

Citation:

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Forty years after the Alaska National Interest Lands Conservation Act (ANILCA) was passed, the Alaska Region of the National Park Service is reflecting on the impact, legacy, and future of this unique legislation. Many Alaskans experience ANILCA as both a blessing and a burden. While tremendous hurdles have been overcome, there are many yet to be faced. This issue of *Alaska Park Science* provides a spectrum of perspectives on ANILCA that we hope strikes a balance reflecting over four decades of varied experiences, from resource management and conservation to the struggles of Indigenous and rural Alaskans maintaining a subsistence way of life. ANILCA has built and simultaneously strained relationships between state and federal governments, Tribes, corporations, urban and rural citizens, politicians, legal experts, biologists, anthropologists, and academics. Yet, despite its successes and failures, all Alaskans and indeed many Americans have been affected by ANILCA in some way throughout their lives.

ANILCA was drafted by Congress in over 92,000 words that filled more than 184 pages and signed into law on December 2, 1980 (Public Law 96-487, 94 Stat. 2371). As the law of the land, its impact and associated legal requirements and structures were, and are, enormous. ANILCA provided special protections to over 157 million acres of land, including the following:

- 48,585,000 acres of new national parklands

- 98,000 acres within the National Wildlife Refuge System
- 25+ wild and scenic river designations
- Misty Fjords and Admiralty Island national monuments
- Steese National Conservation Area
- White Mountains National Recreation Area
- 9,100,000 acres to the Wilderness Preservation System
- 3,350,000 acres added to the Tongass and Chugach national forests

The land conservation designations of ANILCA are well known and are the largest expansion of protected lands in history. Indeed, with the stroke of a pen, President Jimmy Carter more than doubled the size of the National Park System. Less well known are perhaps the many other aspects of the Act and the complications associated with implementing, overseeing, and enforcing the multitude of provisions that affect the daily lives of Alaskans. From subsistence management and use to implementation of the Alaska Native Claims Settlement Act (ANCSA) and the Alaska Statehood Act; extractive mineral resource research, rights, and management; transportation; federal and state cooperation; to a plethora of administrative provisions, ANILCA's reach is immense. It is difficult to identify an expert on ANILCA in its entirety; often careers are made from the study

and application of seemingly small components of this colossal legislation. In recognizing its complexity, we can begin to understand the struggles that arise from ANILCA while navigating its requirements and the real-world impacts on rural and Indigenous peoples who awoke on December 3, 1980, in the shadow of a bureaucratic giant, primarily formulated under Western ideals and Federalism.

Since ANILCA cannot be fully reviewed here, we have chosen to focus on those components of the Act for which the National Park Service has responsibility. This includes Title 2: the National Park System and Title 8: Subsistence Management and Use. ANILCA added an awe-inspiring expansion of land to the agency's management portfolio as well as unique protections that recognize humans and traditional lifeways as integral parts of the landscape, both historically and contemporarily. Like others impacted by ANILCA, the NPS has had to navigate complex and sensitive issues, often without clear definitive guidance from the legislative and judicial branches of government. The agency's inherently interdisciplinary mission statement, which emphasizes both cultural and natural resource protection, has certainly reinforced the importance of addressing the Act's intricacies.

Unique in managing Alaska's post-ANILCA park system, subsistence is a term largely unfamiliar within the continental United States and yet of the utmost importance to Alaska's rural and Indigenous cultures. To many Alaskans, the term is a western construct that only remotely captures the cultural importance of activities associated with the harvest of wild foods. This value extends far beyond nutrition and was explicitly recognized by Congress in

the Act:

§801. The Congress finds and declares that (1) the continuation of the opportunity for subsistence uses by rural residents of Alaska, including both Natives and non-Natives, on the public lands and by Alaska Natives on Native lands is essential to Native physical, economic, traditional, and cultural existence and to non-Native physical, economic, traditional, and social existence

Congress recognized that subsistence is critically important to rural Alaskans, and thus provided a rural priority for subsistence use of fish and wildlife resources. In concept, this recognition and prioritization seems logical; in practice however, the legal and political frameworks to operationalize the mandate are incredibly complex. Furthermore, many believe that the "rural priority" rather than "Alaska Native priority" fails to appropriately protect the rights of Alaska's Indigenous peoples, fails to fulfill political promises made prior to ANILCA's signing, and fails to satisfy the federal government's trust responsibility to Tribes.

To sample these topics, among others, the *Alaska Park Science* editorial team has assembled an array of articles that span diverse perspectives on ANILCA's implementation. We start with a review of ANILCA as an [international model for conservation legislation](#), followed by an account by Pat Pourchot describing the early history of Wild and Scenic River designations in Alaska, what he calls "[the best job in the world](#)." The third article titled [The Power of a Few Words](#) describes how ANILCA uniquely recognizes and protects the human history of Alaska's public lands. Next, we explore some of the challenges of ANILCA's implementation, from an exploration of the [issue of navigability](#) and the Supreme Court's

Sturgeon decision, followed by a perspective piece written by several long-serving National Park Service career public servants giving a [boots-on-the-ground perspective](#).

This leads us to several articles that emphasize the complexity and critical importance of subsistence management. First is a bibliographic essay on [the life and contributions of Katie John](#), an influential and beloved Ahtna Athabascan Elder who championed Alaska Native rights and affected fundamental change in federal subsistence fisheries management. Next, we explore the [perspectives and insights of a former Federal Subsistence Board Chair](#), Mike Fleagle. Then, in this group of articles, we look at the biological work undertaken by a rural organization, the Orutsararmiut Native Council (ONC), to support informed [fisheries management on the Kuskokwim River](#). The continuing, critical importance of [subsistence harvests](#) taking place on National Park Service managed lands is then explored through recent results of comprehensive community surveys and ethnographic interviews conducted by the Alaska Department of Fish and Game's Division of Subsistence.

It is worth noting that while the ONC article largely reflects salmon research and management on a river system that is distant from NPS managed lands, ANILCA's subsistence management structure requires cooperation across administrative boundaries. In fact, the NPS Alaska Regional Director's vote on the Federal Subsistence Board (FSB) carries co-equal weight on all subsistence decisions made on federal public lands, regardless of the agency with direct management authority of the area in question. Furthermore, the ONC article is an example of the reliance that the program

has on rural organizations and rural subsistence users, in informing sound and responsible management of subsistence resources. ONC is an awardee of the Partners for Fisheries Management Program.

Readers will probably note that there are a few threads of commonality among the many articles in this issue. This is representative of the way in which ANILCA is experienced by those who implement it and live within its parameters. It is as complex and convoluted as it is necessary and valuable. The editorial board intended to give the reader a taste of the Act's grandeur and nuance. We could never attempt to accurately summarize ANILCA's tremendous effects, both positive and negative, but we do cautiously commend its forty years of existence, concurrent with recognizing the need for future legislative action and judicial clarity.

We hope you enjoy this issue.



Salmon drying.  
NPS/MAIJA LUKIN



# ANILCA as an International Model for Conservation Legislation

Egan Cornachione and Paula Pletnikoff,  
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ANILCA set a standard for how conservation legislation could be conceived at a large scale with space for a more complex relationship between protected ecosystems and the people who depend on them. Viewed in retrospect, ANILCA incorporated many aspects of what are currently considered best practices in conservation legislation.

Citation:  
Cornachione, E. and P. Pletnikoff. 2022. ANILCA as an international model for conservation legislation. *Alaska Park Science* 21(1): 4-11.

Hunters hiking into Wrangell-St. Elias National Preserve.  
PHOTO COURTESY OF EGAN CORNACHIONE

In 1980, after decades of research in Alaska and years of legislative planning, Congress passed the Alaska National Interest Lands Conservation Act (ANILCA). Widely regarded as the single-largest act of conservation in U.S. history, ANILCA created over 104 million acres of new protected areas in Alaska. Importantly, though, it set a standard for how conservation legislation could be conceived at a large scale with space for a more complex relationship between protected ecosystems and the people who depend upon them. Viewed in retrospect, ANILCA incorporated many aspects of what are currently considered best practices in conservation legislation. In this article, we summarize a framework for considering the distinguishing features of ANILCA from a policy perspective, and how this framework compares to the most recent guidelines for the establishment of protected areas put forth by the International Union for the Conservation of Nature (IUCN). We also try to show that, despite its tumultuous history, ANILCA set an early standard for how to design thoughtful and enduring conservation legislation.

## Relevant History of ANILCA

ANILCA was formally conceived between 1971 and 1978, with ongoing refinement up to its passage in 1980. An almost irreplicable concoction of environmental, social, political,

and institutional factors led to the Act's unique character compared to many conservation legislations of the time (Cornachione and Pletnikoff *In Press*). Environmentally, Alaska's character as a largely undeveloped state with few roads and diverse natural resources created a relatively open canvas for conservationists. Socially, Alaska had a small population with limited infrastructure and a different paradigm of Tribal sovereignty than elsewhere in the U.S. Politically, the 1970s were a period of heightened national sensitivity and motivation for environmental protection. Finally, the institutional hallmarks of ANILCA's development included:

1. a coordinated planning body (the Joint Federal-State Land Use Planning Commission [JPC]),
2. newly mandated preparation of Environmental Impact Statements under the National Environmental Policy Act (NEPA), and
3. extensive public comment from local, state, and national stakeholders.

Further, the Department of the Interior had both an avowed interest in Alaska to expand its portfolio of parklands and other protected lands, as well as a growing awareness of the

importance of including stakeholders in conservation planning and the protection of large ecosystems (Alaska Task Force 1965, Udall 1964). Each of these factors, and a diverse host of others, played a critical role in creating what would eventually become ANILCA.

Williss (1985) and Nelson (2004) emphasize that ANILCA was born not out of a few years of legislative deliberation, but rather from decades of ongoing research, planning, and field study in Alaska. Some of the distinctions of ANILCA—permitting subsistence use and large-scale ecosystem protection, for example—were hardly new ideas once the Alaska Native Claims Settlement Act of 1971 spurred the formal selection of lands for what would later be ANILCA. Professor Richard Cooley, a historian of Alaska conservation, wisely foresaw the potential opportunity for large-scale conservation in Alaska, noting in 1966 that:

*Alaska is undertaking a pioneering effort. . . Its magnificent scenic, wildlife, and wilderness resources are largely intact, and there has been no complicated pattern of land settlement and development. And it has embarked on its land program at a time when knowledge of the principles of land management and conservation is far greater than it was when the West was the last frontier. (Cooley 1966: 3)*

The allowances for subsistence activities were similarly widely considered to be a requisite part of conservation in Alaska. While Alaska Natives and rural Alaskans had to advocate for their right to subsistence hunt, fish, and gather, Belous (1991) suggests that it was apparent early in the development of ANILCA that the conceptualization of people as part of

the landscape would be a requisite part of any conservation legislation in Alaska.

Further, and most relevant to this paper, the NPS had a keen interest in maintaining a leadership role in conservation globally. Former Interior Secretary Stuart Udall spoke at the IUCN's First World Congress on National Parks in 1962 (NPS 1962). NPS Director George Hartzog stated his desire to integrate human and ecological systems in future NPS efforts by joining the *Man and the Biosphere* program in 1971 (UNESCO 2000). Such efforts reflect the early awareness that conservation in Alaska would have international implications.

In short, ANILCA was conceived out of a conglomeration of circumstance, research, and planning that created a unique conservation vision, with its international relevance recognized well before it became law. Cornachione and Pletnikoff (*In Press*) document the conservation history of ANILCA and propose that it can be conceptualized under a framework of seven key features that elucidate the conservation thinking behind the Act.

### Key Features of ANILCA

#### (1) A System of Representative Ecosystems

The starting point for ANILCA was to protect a system of intact ecosystems, each of which represented a major ecoregion of the state (e.g., Selkregg 1974, JPC 1977, and Draft Environmental Impact Statements for proposed Conservation System Units 1973-1975). While ANILCA protected several high-profile tourist areas and unique geologic, historic, or scientifically important features, the legislation was conceived from a top-down approach of identifying ecoregions (i.e., Arctic tundra, boreal forest, coastal rainforest, and others)

and ensuring the protection of resources within them. Cornachione and Pletnikoff (*In Press*) note that this was based heavily on data collected throughout the 1950s and 1960s and compiled in [Alaska Regional Profiles](#) (Selkregg 1974).

#### (2) Ecosystem-scale Conservation

Conservation planners for ANILCA drew boundaries along natural features, extending well beyond distinct sites of historic, geologic, scenic, or scientific significance. The NPS team tasked with recommending areas for protection after the Alaska Native Claims Settlement Act first identified areas with significant values. Then, where possible, the team drew boundaries to include “complete watersheds, sufficient intact habitats, and adequate units of geological importance” (NPS 1972). Provisions for cooperative management and flexibility to adjust boundaries in the future were included in the text of ANILCA to further ensure ecosystem-scale protection.

#### (3) Protection of Cultural and Societal Existence

One of the hallmarks of ANILCA is its protection of the subsistence rights of Alaska Natives and rural residents. Subsistence use of natural resources has transpired in Alaska for thousands of years by Native residents and for generations by non-Natives. Alaska citizens, lobbyists, and legislators along with their advisors recognized, or were convinced to recognize, the necessity to protect the cultures and lifestyles of Native and rural Alaskans. There is a distinction made in Section 801 of ANILCA for the protection of subsistence for Alaska Natives, the main difference being between the protection of “cultural existence” for Alaska Natives and protection of “social existence” for non-Natives. The protection of cultural

artifacts and, notably, the traditional practices of subsistence use of renewable resources is outlined in title VIII of ANILCA as a part of the Act's conservation vision.

#### (4) Cooperative Interagency Management

Appreciating that ANILCA was creating a patchwork of land ownership, lawmakers included stipulations to encourage the cooperation among federal land managers and between federal, state, and Native land managers. The now-defunct Alaska Land Use Council, as well as the interagency Alaska Public Lands Information Centers are examples of the intention to boost cooperation and foster management across boundaries.

#### (5) Sustained Stakeholder Engagement

A wide range of stakeholders were given many opportunities to provide input to the JPC and Congress. The importance of stakeholder engagement was further recognized in ANILCA through the creation of Subsistence Resource Councils and provisions the hiring of residents local to the protected areas (Williams 1996). This has helped increase public awareness of issues around parks and protected areas and gives a voice to those directly impacted by decisions.

#### (6) Integrated Management Flexibility

The JPC recognized the need for "land use patterns to respond to the changing needs of society over time" and that "the 'appropriate' land use of today may not be that of 20 or 100 years from now" (JPC 1977, IV-1-4). It was evident that the economic needs, population, technology, and even the environment would change, therefore, ANILCA was designed to be flexible to adapt to these needs while still achieving the original conservation goals. For example, Title XI of ANILCA explicitly

recognized that Alaska's transportation infrastructure would likely need to expand as the state grew. The title provides for the informed and thoughtful future development of roads, transmission lines, pipelines, and other similar infrastructure in a way that minimizes adverse impacts to ecosystems.

#### (7) Balanced Consideration of National and Local Interests

Made clear by including "national interest" in its title, ANILCA's purpose is to protect areas in Alaska for the benefit of all U.S. citizens while balancing the needs of state and local stakeholders. The tension between local, state, and national economic and conservation demands is a defining characteristic of ANILCA. The creation of the Land Use Planning Council, as well as Resource Advisory Commissions, were, in part, an attempt to help ensure the continued balance of all interests.

#### Comparing ANILCA with Current International Protected Area Guidelines

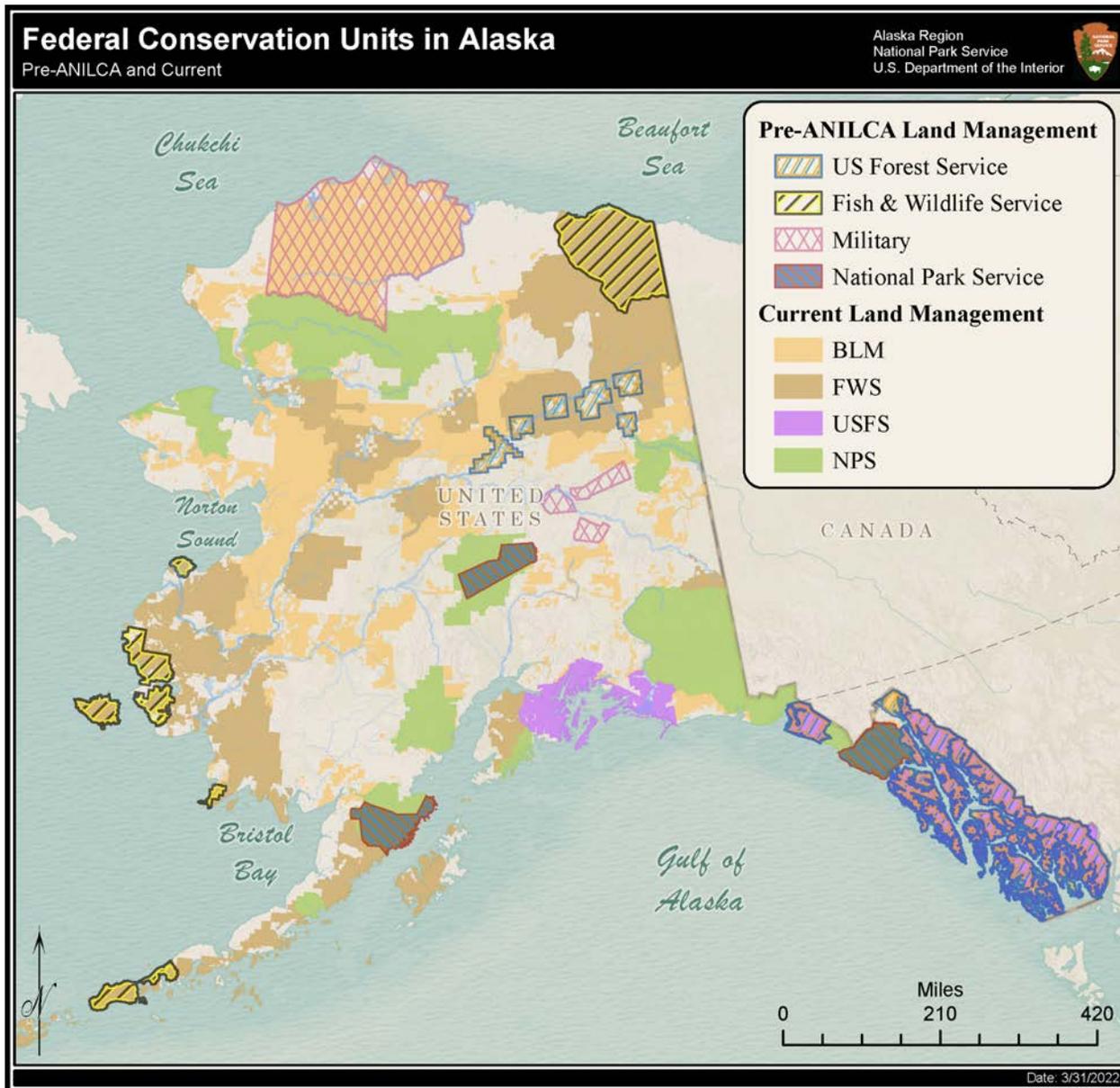
ANILCA was not conceived based on any framework or set of guidelines, but lawmakers were aware of the Act's international significance (Nelson 2004). The IUCN has published guidelines for creating protected areas since (coincidentally) 1980. Their 2011 guidelines for protected area legislation define characteristics that lawmakers consider when developing conservation legislation (Lausche and Burhenne-Guilmin 2011):

- **Representativeness, comprehensiveness, and balance:** Protected areas should represent the scope of biodiversity or other unique values of a region. Priority is given to threatened or under-protected ecosystems and areas of cultural value.

- **Adequacy:** Designations should protect enough area to ensure the continuation of functioning ecosystems and maintenance of biodiversity.
- **Coherence and complementarity:** Protected areas should be recognized as parts of a greater whole. Groups of protected areas should fill in gaps in ecosystem values and fit together in a way that makes sense.
- **Consistency:** Policies and management goals across similar areas should be applied consistently.
- **Cost-effectiveness, efficiency, and equity:** Environmental justice concerns should be minimized, and tradeoffs of conservation should be efficiently balanced while meeting the overall conservation goals.
- **Persistence:** Protected areas should be designed for long-term ecosystem integrity.
- **Resilience:** Conservation objectives should be able to adapt to changing climate and social conditions.

Key features 1 and 2 of the ANILCA framework described in Cornachione and Pletnikoff (*In Press*) reflect the intent of ANILCA to achieve **representativeness and comprehensiveness**. The top-down conservation planning of ANILCA, based upon the best available scientific data at the time, is a strong example parallel to the IUCN's recommendation that each ecosystem type be protected within the scope of each law.

The ecosystem-scale protection of ANILCA also helps ensure **adequacy** of the size of



Map showing conservation units that existed prior to ANILCA (in hatched polygons) and the protected lands expanded by ANILCA (solid colors).

protected areas. Alaska protects the largest national parks and national wildlife refuges in the U.S. and has several of the largest individual protected areas in the world (Wee 2016, Kiprof 2018). Conservation planners in ANILCA wanted to protect an adequate area of land to ensure ecosystem function and continuity (NPS 1972, JPC 1977, Nelson 2004).

ANILCA also achieves **coherence and complementarity** through delegating management responsibility to the agencies best equipped to manage each area's unique resources. For example, the Noatak National Preserve borders Kobuk Valley National Park and Preserve, and Yukon Flats National Wildlife Refuge shares borders with the Arctic National Wildlife Refuge and the two Bureau of Land Management conservation units. The protected areas were not conceived in isolation and ANILCA stipulates cross-boundary ecosystem management.

ANILCA achieves **consistency** through providing policy guidance for four different land managing agencies. While this unifies land management across jurisdictions, there remains a patchwork of different agency managers with different primary management objectives. Further, the overlapping management of fish and game with the state complicates the reality of protected area management and the regulations for subsistence users.

Features 3, 6, and 7 of the ANILCA framework—preserving subsistence uses, allowing changing needs to be met over time, and balancing local and national stakeholder needs—are examples of the Act addressing cost-effectiveness, efficiency, and equity. The Act

seeks to meet the needs of Alaska Natives and rural Alaskans who are directly affected by the management decisions made on the lands and resources they rely on. Subsistence Resource Councils, local hire provisions, and allowing resource uses in certain areas to change over time address economic concerns and equity.

Persistence was an apparent concern to conservation planners, from the NPS to the JPC. ANILCA needed to provide enduring protection without knowledge of the economic future of Alaska or how ecosystem processes may change over time. In addition to protecting full ecosystems to help ensure persistence, the JPC recommended “buffers” against potential future encroachment, and the Alaska Planning Group identified non-protected “areas of environmental concern” as part of the buffering concept.

Relatedly, **resilience** was met through several factors. Dudley and others (2010), note that large, connected protected landscapes achieve the strongest possible resilience against changing climate conditions. As described in Cornachione and Pletnikoff (*In Press*) in key features 2 and 4, ANILCA strove to protect full ecosystems and connect boundaries wherever possible. Further, ANILCA includes stipulations for scientific research, monitoring, and public engagement to help inform managers of resource concerns in a forward looking rather than reactionary paradigm.

Finally, some aspects of ANILCA are not reflected in current international conservation best practices. While equity is a component of Lauche and Burhenne-Guilmin’s (2011) best practices, less emphasis is made on including people, culture, and ways of life within

conservation legislation. ANILCA is perhaps most distinguished for incorporating some of the subsistence rights of residents impacted by changes in land management. This is a crucial distinguishing factor that is likely not entirely covered within the characteristics put forth by the IUCN.

### Concluding Thoughts

Many conservation-minded individuals in the years leading up to ANILCA considered the United States to be an international pioneer and leader in conservation, and this ethos was not lost in the milieu of ANILCA deliberations. Early Alaska park managers such as Mack Shaver grasped both this leadership role and the Act’s complex conservation vision. Shaver spoke at the IUCN’s First World Congress on Cultural Parks in 1984, describing Alaska as undertaking “an experiment on a grand scale.” He goes on to stress the importance of the conservation vision of ANILCA:

*to break apart this ecosystem (which contains man) by imposing strictly preservationist values on the majority population of a region that links itself so heavily to the land and its natural products, would in fact have critically altered the very values most worth preserving in these areas. . . . Through ANILCA this continuum is being preserved.* (Shaver 1984: 314).

At 40 years, ANILCA is a living, evolving legislation. The conservation thinking that informed the Act reflects some of the most crucial distinctions of modern conservation best practices. From an international perspective, ANILCA serves as a useful case study in not only putting these guidelines into law, but also how to observe their effectiveness over time. While

it does not fully address every component of conservation best practices, it achieves pieces of each. In this way, ANILCA provides a useful lens for witnessing how the current best practices in conservation legislation are continually unfolding in Alaska.

### Acknowledgements

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Telaquana Lake in fall colors, Lake Clark National Park and Preserve.  
NPS/J. MILLS



"PROSPECTERS" AT DERWENT CHIBLEY RI. © NO. 655

# The Power of a Few Words: How ANILCA Preserves the Human History of Alaska’s Public Lands

Chris Allan, National Park Service

“Never before have we seized the opportunity to preserve so much of America’s natural and cultural heritage on so grand a scale.” ANILCA differed from other conservation legislation in its explicit inclusion of people and culture. People’s lives, both past and present, are intertwined in Alaska’s parklands.

Citation:

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On December 2, 1980, when President Carter signed the Alaska National Interest Conservation Lands Act (ANILCA) into law, he declared, “Never before have we seized the opportunity to preserve so much of America’s natural and cultural heritage on so grand a scale.” The scope of the new legislation was indeed grand: it created ten new national park units and added to three existing parks for a total of 43.6 million acres of new national parklands. In addition, nearly 54 million acres became new wildlife refuges, and of all the land protected by ANILCA, almost 57 million acres would become designated wilderness, tripling the size of the National Wilderness System. Environmental advocates across the nation were delighted, and it was clear from the president’s comments after the signing that his primary concern was “the living earth” and the damaging effects of industrial development. However, cultural heritage was also on the agenda, and the new law provided direction for some of the new park units regarding history, archeology, and the study of Alaska Native cultures past and present. In the case of Yukon-Charley Rivers National Preserve, the wording was more specific than most.

In addition to calling for protection of the “undeveloped natural condition” of the preserve’s 2.5 million acres, a habitat for

moose, Dall sheep, grizzly bears, wolves, and peregrine falcons, the architects of ANILCA explained that the preserve was also intended to “protect and interpret historical sites and events associated with the gold rush on the Yukon River...” (Title II, Section 201). This purpose was unlike those assigned to other ANILCA lands—it was more targeted, more specific to a particular event: in this case, the Klondike-Alaska Gold Rush of 1897-1899. Other National Park Service units created by ANILCA included cultural mandates. Bering Land Bridge National Preserve and Cape Krusenstern National Monument were created, in part, to pursue precontact archeology, to interpret archeological sites associated with Alaska Native cultures, and to study the peopling of the Americas. Likewise, Kobuk Valley National Park and Noatak National Preserve were called upon to “protect and interpret archeological sites associated with Native cultures.” In other cases, however, cultural resources were overlooked, as with Wrangell-St. Elias National Park and Preserve, another ANILCA creation, that has a rich copper-mining past and dramatic mining infrastructure but received no direction at all regarding historic resources.

Yukon-Charley Rivers National Preserve’s history mission aligned it closely with Klondike Gold Rush National Historical Park, which was

created in 1976 to preserve historic structures and trails associated with the rush to the Klondike gold fields. The two parks have much in common, with Klondike Gold Rush National Historical Park focusing on the southern end of the stamperers' journey—including Skagway's historic downtown and the twin mountain routes of Chilkoot and White Pass—and Yukon-Charley Rivers National Preserve focused on mining activity that spilled out of the Canadian Klondike and spread across Alaska via the Yukon River. The two other park units in Alaska dedicated primarily to historical themes are Sitka National Historical Park, with its focus on Tlingit culture and Alaska's Russian colonial period, and the Aleutian Islands World War II National Historic Area, based in Unalaska. In a state where national parks are most often associated with wildlife and wilderness values, these parks each have enabling legislation that articulates which historical events and historical themes are important. Those few words have power.

The search for gold in the areas in and around today's Yukon-Charley Rivers National Preserve dates back to the 1870s when the fur traders Al Mayo, Jack McQuesten, and Arthur Harper began discovering what they called "colors" in creeks along the southern side of the Yukon River. In 1886, gold was discovered along the Fortymile River, which straddled the international boundary with Canada. And, in 1893, more than 150 miles to the west at Birch Creek, prospectors found another rich gold field and founded Circle City as a supply depot. All of this activity was mere prelude to the explosive news in 1897 that gold on the Klondike River, in Canadian territory, lay, in the words of its discoverer, "between flaky slabs of rock like

cheese in a sandwich." Over the next two years, an estimated 100,000 gold-seekers began the long and arduous journey northward, though many gave up for lack of money or confidence. Between 30,000 and 40,000 made their way to the boomtown of Dawson City and to various points in Alaska where lesser stampedes were unfolding. This sudden pulse of economic activity permanently and profoundly changed Alaska.

During the rush, paddlewheel steamboats carried gold-seekers along the Yukon and other river systems, and in winter, dog-sled trails extended from the Klondike and Dawson across the boundary to American gold camps at Fourth of July Creek, Charley River, Sam and Ben creeks, Coal Creek, and Woodchopper Creek—all of which are today within Yukon-Charley Rivers National Preserve. In addition, the mining camp of Eagle City, just eleven miles on the American side of the border, grew into an administrative center and supply depot for the miners working on surrounding rivers and creeks. The mining in those early years was arduous, the gold scant, and most people abandoned their claims when gold was discovered near Nome in 1899 and Fairbanks in 1903. Nevertheless, a tradition of placer mining continued along this stretch of the Yukon River and burgeoned in the 1930s with the arrival of two gold dredges at Coal Creek and Woodchopper Creek (Figure 1). These mechanical behemoths could excavate and process 3,000 cubic yards of gravel in a day and they continued to yield profits through the 1950s. In later years, individuals leased the same mining claims, tried their hands at dredging, and settled on using bulldozers, hydraulic pumps, and sluice boxes to pull gold from the earth. Because of the area's lengthy gold-mining



**Figure 1.** The gold dredge at Coal Creek, July 1, 1936. ALASKA & POLAR REGIONS COLLECTIONS AND ARCHIVES, EVERETT S. HAMMAN PHOTOGRAPHS

history, the ANILCA mandate to protect and interpret "the gold rush on the Yukon River" is interpreted broadly to include mining activity before, during, and after the relatively brief Klondike-Alaska rush.

In the decade before ANILCA, park planners drew lines on maps and calculated the best ways to convince Congress and the American public of the merit of new park units. Historian Melody Webb was one of the people hired to make the case for what became Yukon-Charley Rivers National Preserve. In addition to archival work, Webb enlisted the help of a local trapper

as a guide and spent a summer combing the 110 miles of the Yukon River between Eagle and Circle for historic sites. In the process she documented a wide variety of old roadhouses, trapping cabins, mines (both abandoned and active), mining-related machinery, and man-made features like trails, ditches, and the tailings piles left over from placer mining.

She produced *Yukon Frontiers: Historic Resources Study for the Proposed Yukon-Charley National River* (1977) and relied on the same research to write *The Last Frontier: A History of the Yukon Basin of Canada and Alaska* (1985), which remains the only comprehensive study of the region's history. After the preserve became a reality, Douglas Beckstead added to knowledge of the preserve's history with *The World Turned Upside Down: A History of Mining on Coal Creek and Woodchopper Creek* (2003) and I wrote *Gold, Steel & Ice: A History of Mining Machines in Yukon-Charley Rivers National Preserve* (2015). This sort of documentation is essential because most Americans will never visit the preserve, and those who do may float along the Yukon River and pass historic sites without knowing.

In addition to documentation and interpretation, ANILCA calls for park managers to also “protect... historical sites” which is a challenging and forever evolving element of the preserve's mission. When a building or other structure is identified as meriting protection, park staff must apply the principles of historic preservation as detailed in *The Secretary of the Interior's Standards for the Treatment of Historic Properties* (latest revision, 1995). This set of guidelines establishes general principles and best practices to protect our nation's irreplaceable cultural resources. One of the central concepts of this work is to alter or destroy as little as possible

of the “historic fabric,” or original material, when repairing a building and to take special care to retain the visual features that distinguish the structure. In Alaska's backcountry, buildings are battered by sun, wind, rain, and snow, and they are often threatened by seasonal flooding, erosion, wildfire, insect infestation, and even damage from bears. And in Yukon-Charley Rivers National Preserve, each type of historic building or structure—including log cabins, frame-built mining camps, roadhouses, elevated log caches, or giant dredges on steel pontoons—ages differently and presents unique preservation challenges.

Some of the first preservation efforts in Yukon-Charley Rivers National Preserve took place after 1986 when the National Park Service received ownership of former mining claims along the Coal Creek drainage. This parcel stretched roughly seven miles inland from the Yukon River and included the land dredged by Placer Golds, Inc. beginning in the mid-1930s. In addition to buildings in Coal Creek mining camp and the company's gold dredge, the area included the two-story roadhouse built by mining old-timer Frank Slaven on the banks of the Yukon River. The roadhouse presented park managers with an opportunity to protect examples of industrial mining infrastructure from the 1930s but also to interpret mining activities dating back to the Klondike rush. Workers painted mining camp buildings (using colors matching the original), installed a new asphalt-shingle roof on the dredge, and made much-needed improvements to Slaven's Roadhouse, where the building's foundation logs were rotting and sinking into the earth (Figure 2). In addition, a professional hazardous materials remediation crew removed mercury



**Figure 2.** Slaven's Roadhouse on August 26, 1938 and today. Significant restoration of the building took place in the the early 1990s.  
U.S. GEOLOGICAL SURVEY, JOHN B. MERTIE COLLECTION

from the ground near the camp's Assay Building and disposed of old fuel and lubricant drums that littered the drainage. At the same time, historians completed a nomination to add the Coal Creek Historic District to the National Register of Historic Places, the nation's official list of its important historical properties.

Historic preservation efforts continue in recent years. Within the Coal Creek Historic District, workers have replaced rotting foundation timbers and repaired damaged roofs on buildings at Cheese Creek, a Coal Creek tributary where the dredge was built in 1936 and where some of the first camp buildings remain. At Sam Creek, just a few miles up the Yukon River, a small cabin thought to be the oldest intact log structure in the preserve needed its roof expanded to deflect rain and snow as well as new spruce beams to reinforce the walls (Figure 3). And, in 2017, the Coal Creek gold dredge was threatened by water leaking through its various roof surfaces. Over the course of three weeks, a crew removed the old, damaged asphalt roofing, replaced rotten roof boards, and installed new waterproofing and roofing material. Both inside and outside of the dredge, the same workers replaced rotten wood structures like stairs, walkways, and handrails, helping to ensure the safety of visitors (Figure 4). Challenges remain to doing historic preservation in remote locations—many sites can only be reached by airplane, boat, or helicopter, and the summer season is brief—but efforts will continue to protect the preserve's historic resources and to share the area's history with as many people as possible.

Other means exist to capture and share the preserve's history with researchers, park managers, and the general public. One of



**Figure 3.** This cabin near the mouth of Sam Creek is thought to be the oldest intact log structure in Yukon-Charley Rivers National Preserve. Preservation work has included stabilization of the roof and the building's walls. NPS/CHRIS ALLAN

the most enduring is the Historic American Building Survey and—particularly relevant to a region with mining infrastructure—the Historic American Engineering Record. Commonly known as HABS/HAER, this national program creates architectural drawings, historical narratives, and archival quality photography to document important historical properties. This work was first conducted in the national preserve in 1984 and experts returned to expand the work in 2015-2016. As technologies evolve, this type of work can also include 360-degree photography, laser scanning of the interiors and exteriors of buildings, and Internet-based virtual tours. Historians and others can conduct oral history interviews with people whose lives are intertwined with parklands, and we reach a wide audience through National Park Service websites and social media as well as brochures, posters, and presentations. Documenting and sharing park history can only be fully achieved by using all the tools and as much creativity as we can.



**Figure 4.** The preservationist and carpenter Al Williams installs new roofing on the Coal Creek gold dredge, 2017. NPS/CHRIS ALLAN

In celebrating the 40<sup>th</sup> anniversary of ANILCA, it is worth reflecting on the ways this legislation was groundbreaking, not merely because of the size of its re-designation of public lands, but also in the ways it differed from previous acts of park creation. With just a few words, ANILCA's authors made clear that they were not banishing people from the land or ignoring their deep connections to these special places—one can see proof of this in the law's protection of subsistence opportunities (Title VIII) and in the approval of hunting, trapping, and other activities in national preserves (Title XIII). And it was also strategic in directing park managers to pursue cultural topics and protect archeological and historical sites. In this way, ANILCA was perfectly aligned with the National Park Service's own founding legislation, the Organic Act of 1916, with its own powerful words, that directs the agency to:

*... conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.*

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# The Best Job in the World!

## The History of Wild and Scenic River Designations in Alaska

*Pat Pourchot, Retired, Department of the Interior*

Field work consisting of river trips and overflights in the most scenic and remote areas of Alaska resulted in over 100 million acres of new or expanded national parks, refuges, and forests and the designation of over 3,200 river miles in 26 new wild and scenic rivers.

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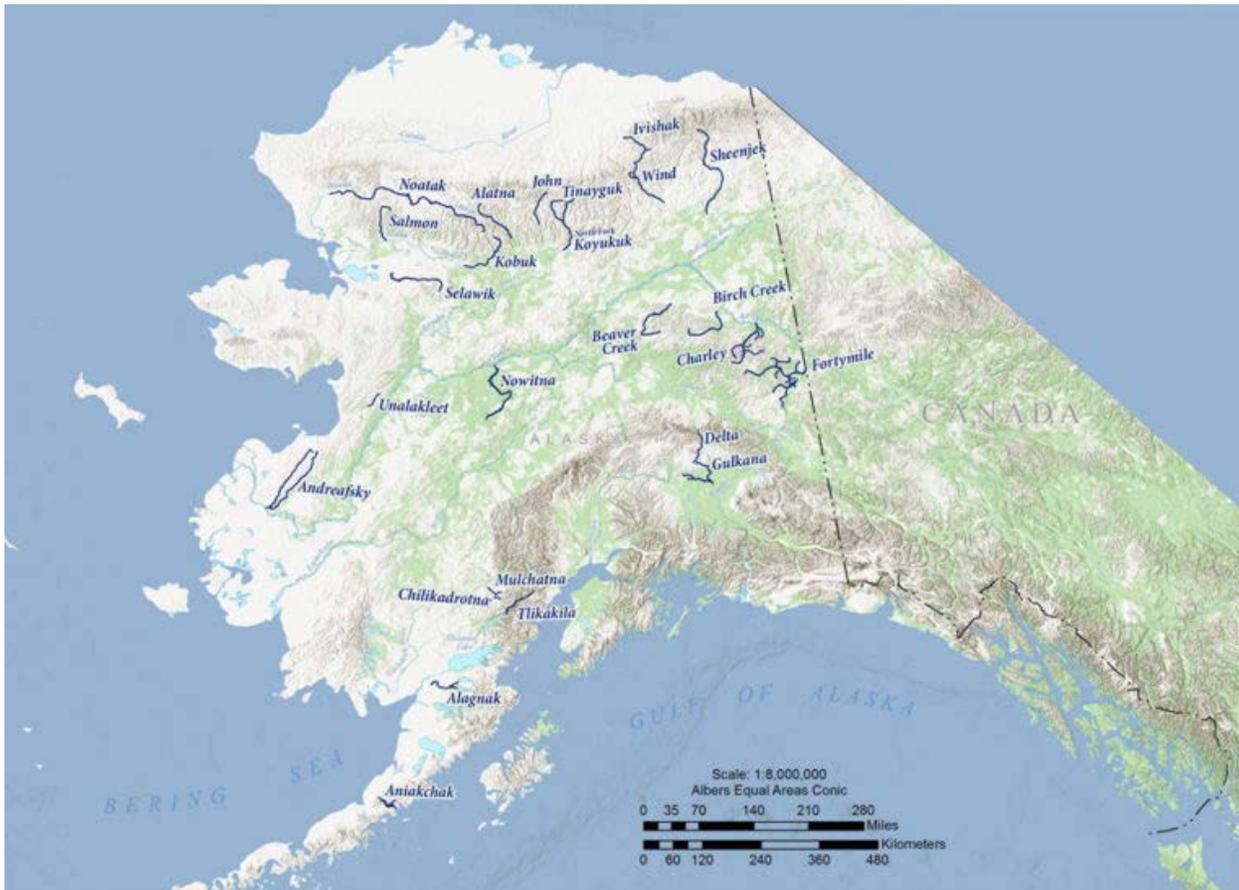
Casting for grayling while floating down Beaver Creek north of Fairbanks I couldn't believe how lucky I was. Just a month before, I had arrived in Alaska for the first time and now I was leading an interagency team assessing the suitability of this river for potential inclusion in the National Wild and Scenic Rivers System.

I had been working in the Denver regional office of the Bureau of Outdoor Recreation (BOR) for less than two years—my first job out of college—when the Alaska Native Claims Settlement Act (ANCSA) passed in December 1971. This landmark legislation settled aboriginal land claims dating back to the purchase of Alaska from Russia in 1867 with the conveyance of about 46 million acres of federal land to Native regional and village corporations. Most of Alaska's approximately 375 million acres was in federal ownership at that time, but the State of Alaska had been granted approximately 103 million acres under the 1958 Statehood Act, much of which had not yet been conveyed. The pending Native and State conveyances raised a desire on the part of national conservation organizations and congressional leaders to initiate studies of potential new conservation system units. Under Section 17(d)(2) of ANCSA, the Secretary of the Interior was authorized to withdraw up to 80 million acres of federal land for study as potential additions to the national

park, wildlife refuge, forest, and wild and scenic rivers systems. Following these withdrawals and study, the Department of the Interior (DOI) was to submit legislative proposals to Congress for consideration. If Congress did not act by December 1978, the withdrawals would lapse, and the land would be available for state and Native selections, or for general land uses under the Bureau of Land Management (BLM).

In the spring of 1972, following passage of ANCSA, federal teams were assembled from Alaska and around the country to initiate the conservation system studies: a National Park Service team to study potential new or expanded national parks; a U.S. Fish and Wildlife Service team for new or expanded national wildlife refuges; a U.S. Forest Service team for new or expanded national forests; and a BOR team for new wild and scenic rivers. When the Bureau was casting about for volunteers to go to Alaska, I could not raise my hand fast enough, having dreamed of going to Alaska since I was a kid. Although there was initial concern that my low pay grade might not be sufficient to sustain me in Alaska's high-cost economy, I persevered and joined a five-person team in Anchorage in June 1972.

Our first task was to talk to Alaska land managers, local conservation groups, river user groups, and comb the literature for possible



National wild and scenic rivers in Alaska.  
MAP PRODUCED BY THE FAIRBANKS PADDLERS

river candidates. This yielded dozens of rivers around the state that had been mentioned as having high value, particularly recreational value. Not surprisingly, many of the rivers were popular fishing, hunting, or floating rivers, many with some road accessibility. With an initial list of 166 rivers, we quickly realized we had more candidates than we could reasonably study and develop into potential legislative proposals. The next order of business was clearly to develop study criteria.

The Wild and Scenic Rivers Act of 1968 states that:

*certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit of present and future generations.*

Several rivers in the Act that were initially designated were some of the few U.S. rivers that were still undammed and largely undeveloped. Some segments of these rivers and rivers designated later were relatively short, and most were readily accessible at various locations. This was certainly not the situation in Alaska, where virtually all rivers were not dammed, most flowed dozens if not hundreds of miles through wilderness settings with no streamside developments, most had limited accessibility, and most would certainly qualify for inclusion in the Wild and Scenic Rivers System.

We developed several original criteria for Alaska rivers: (1) rivers should contain at least one, preferably more than one, outstanding value in comparison with other rivers in Alaska; (2) rivers should be selected that represent the different geographic regions and biomes of Alaska; (3) rivers should be of sufficient length to provide significant recreational opportunities or encompass most of the important values of the river; and (4) rivers should be of a length to provide effective management by a federal agency. The last criterion was in recognition that some rivers contained large segments of state or Native lands where long-term management

by a federal agency would be difficult or not ensured. Although the Wild and Scenic Rivers Act does provide for the inclusion of state lands and waters, the Alaska National Interest Conservation Lands Act (ANILCA) specifically prevented state lands and waters, and all other non-federal ownerships, from inclusion in federal designations.

Based on these criteria and further research and literature review, we reduced our study list to 69 rivers of about 7,000 river miles. We then embarked on a mammoth two-day overflight of a large swath of Alaska from Anchorage to the North Slope. After a very bumpy half day and losing three of five lunches on the plane, we landed in the 90-degree June heat of Fairbanks. After collecting our stomachs, we headed for the Brooks Range and had spectacular views of many of our rivers. Additional overflights and research, consultation with the other federal teams, and further application of our criteria reduced the number of study rivers targeted for more in-depth field investigation.

Then the real fun began. We grouped rivers that might be efficiently inspected together and divided them up among our team. Some rivers were road accessible like Birch Creek and the Gulkana River, but most were reachable only by air. We employed float planes, wheel planes, and helicopters to put-in and take out people, watercraft (canoes and rafts), and gear on the rivers. In those days, we had the ability and luxury to use, when available, fire helicopters on contract with the BLM for the summer. Helicopters provided some unique access opportunities, like into the upper Bremner River (a tributary of the Copper River) and the Salmon River in the Brooks Range that few, if any, recreationists had previously enjoyed.

That first summer we ran river trips on about a dozen rivers with interagency parties. For most trips we invited a representative of the State of Alaska, typically from the Department of Fish and Game, the existing or potential federal land managing agency, a land-owning Native corporation, and others having special knowledge or interest in the river area. Typical inspection teams ranged from four to eight participants. Trip logs and photos were compiled for all inspections—which are still available through the Alaska Resources Library and Information Services and used by recreationists and others today. After the summer season, field notes, and information from participants and existing literature were incorporated into draft river reports describing the resources, important values, and potential for designation of the various rivers.

The initial work and recommendations of the various federal teams were used by the Secretary of the Interior to make final withdrawals of 80 million acres to protect potential additions to the various conservation systems. The work of the federal teams continued for several years to support the first legislative proposal by Interior Secretary Rogers C. B. Morton of approximately 80 million acres of new parks, refuges, forests, and wild and scenic rivers, and then with a change of administrations in 1976, to add additional acreage to the proposals before Congress. In 1980, ANILCA passed. The work of the federal teams laid the groundwork for the creation of over 100 million acres of new or expanded national parks, refuges, and forests.

From 1972 through 1976, I had the opportunity to float over 20 of the “best” rivers throughout Alaska. The field work took me from the shores of the Gulf of Alaska to the Yukon-

Tanana Uplands, to the clear lakes and streams of Bristol Bay, to the stark beauty of the Brooks Range. Throughout our field work, we did not experience any injuries, evacuations, animal attacks, or aircraft accidents. Our Bureau of Outdoor Recreation team (later changed to the Heritage Conservation and Recreation Service and eventually absorbed into the National Park Service) took special pride in the designation of over 3,200 river miles in 26 new wild and scenic rivers. It was truly the best job I ever had!



# ANILCA, Navigability, and Sturgeon

Gavin DeMali, National Park Service

Although ANILCA conserved millions of acres of land, it also included compromises to protect the interests of Alaskans in ways atypical in comparison to parks in other states. The use of waterways for commerce, access to resources, and enjoyment has a history of complex rights and jurisdictions. These ambiguities continue today, more than 40 years after ANILCA became law.

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The passage of ANILCA saw the expansion of protected status to massive swaths of Alaska, encompassing millions of acres of newly designated national parks, preserves, and other conservation units. The legislation sought to extend protection to conserve these expansive landscapes and the waters that run through them, some of which being so central to the conception of these newly designated units that they became their namesake. But while ANILCA emphasized the conservation of these areas, it also included compromises to protect the interests of Alaskans in ways atypical in comparison to national parks in other states.

These compromises touch on a number of subjects that have wide ranging implications, and the conservation and jurisdiction of the water bodies within ANILCA conservation system units (CSUs) are no exception. These implications were made apparent to the National Park Service in Alaska when rangers in Yukon-Charley Rivers National Preserve stopped a man on a hovercraft on the Nation River in 2007. The rangers warned the man that his hovercraft was not allowed in the preserve based on NPS regulations and he subsequently left. The issue was not dropped there, however, as this man, John Sturgeon, went on to file a lawsuit against the National Park Service arguing that a specific portion of ANILCA prevents the NPS from enforcing their regulations on navigable waters.

Sturgeon argued that Section 103(c) of ANILCA prevents NPS from enforcing their regulations on the Nation River and other waters whose submerged lands are owned by the State (*Sturgeon v. Frost*, 577 U.S. \_\_\_ (2016)). Section 103(c) prevents lands within conservation system units that are owned by the State, Alaska Native Corporations, or that are privately owned from being subject to regulations applicable solely to public lands. This provision was a compromise to prevent the lives of those who already lived within the newly designated units from being disrupted by their creation (16 U.S.C. § 3103(c)). The case proceeded through the District Court and 9<sup>th</sup> Circuit Court of Appeals and then came before the Supreme Court who decided that 103(c) draws a distinction between public and non-public lands and remanded the case to the circuit court to decide if the Nation River was public land (*Sturgeon v. Frost*, 577 U.S. \_\_\_ (2016)). When the case made it back to the Supreme Court (*Sturgeon v. Frost*, 587 U.S. \_\_\_ (2019) “*Sturgeon II*”), they issued a unanimous decision that the Nation River was not public land by virtue of its state ownership, and therefore it (and by implication all waters whose submerged lands are not federally owned) were not subject to NPS regulation. The Court did acknowledge that federal subsistence fishing regulations applied on navigable waters within or adjacent to federal lands as a result

The iconic cabin built by Dick Proenneke, wilderness advocate and longtime resident of Twin Lakes, lies near the shores of one of the waterbodies named in the State of Alaska's most recent Quiet Title lawsuit.

NPS/D. LILES

of the outcome of the *Katie John* series of cases (*Alaska v. Babbitt*, 72 F.3d 698 (9<sup>th</sup> Cir. 1995)). In their acknowledgement, however, the Court refused to address federal subsistence fishing regulations since they were not at issue in *Sturgeon II*, leaving the *Katie John* rulings potentially open to future change.

This decision has rippling implications for the National Park Service in Alaska, as now their ability to manage the waterbodies that are protected within ANILCA-designated units is brought into question. NPS authority over these waters became a question of the ownership of their submerged lands following *Sturgeon II*. This ownership of submerged lands is in itself a complicated legal question with a long history rooted in ideas about state sovereignty.

As a sovereign, states hold title to the submerged lands of the navigable waters within their borders, a concept that relies upon the legal construct of navigability for title purposes to decide what is and isn't navigable. Navigability for title purposes (which we will just refer to as *navigability* from here) has evolved over its history as court rulings have specified criteria and parameters defining its application. Waters are considered on a case-by-case and sometimes segment-by-segment basis based on these criteria to determine the ownership of their submerged lands and, post-*Sturgeon II*, who has the authority to manage them.

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*Navigability for title purposes is concerned with the ownership of submerged lands and is differentiated from navigability for purposes of regulating commerce and from navigability for purposes of admiralty jurisdiction.*

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## A Brief History of Navigability

Legal questions regarding the ownership of submerged lands based on their navigational use have a long history. In Roman law, a distinction was made between public and private submerged lands based on their use and on characteristics such as their ephemerality (MacGrady 1975). Within English common law, the sovereign (the monarch) owned the beds of all navigable waters as a means to ensure their use as highways for transportation and to ensure the sovereign's authority to regulate and tax that use. As a consequence of English geography, specifically the lack of major navigable inland waterbodies, the definition of navigability in English common law was limited solely to tidally influenced waters as they were the only waters viable for this sort of use.

As subjects of the British Empire the American colonies operated under the legal system of English common law. Following independence, American law remained rooted in many English common law principles, and many of these principles and practices are recognizable within the American legal system today (Robbins Collection 2017). The strong emphasis on judicial precedent, the use of an adversarial system in which two opposing parties (a plaintiff and a defendant) compete before a moderating judge, and the use of a jury of ordinary people without legal training to decide on the facts of a case are all components of English common law that were carried over into the legal system of the United States.

Like many of these principles, navigability in American law extends from English common law. Within U.S. law navigability first arose as an issue of state sovereignty. In an 1842 case

centered on a dispute over who possessed the right to harvest oysters in a certain bed in New Jersey, the Supreme Court ruled that the State of New Jersey held title to the lands beneath navigable waters in public trust as the sovereign successor to the English Crown (*Martin v. Waddell*, 41 U.S. 367 (1842)). This established the principle of state ownership of the submerged lands of navigable waters within the United States and affirmed it as an incident of state sovereignty.

Several years later in 1845, the case of *Pollard's Lessee v. Hagan* (44 U.S. 212 (1845)) saw the application of the Equal Footing Doctrine to the question of navigability. The Equal Footing Doctrine is a principle in constitutional law that new states are admitted to the union on an "equal footing" with the original 13 states. *Pollard's Lessee v. Hagan* concerned the ownership of the submerged lands between the shores of navigable waters within Alabama. The Supreme Court decided that the State of Alabama received title to these submerged lands upon statehood on an equal footing with the original 13 states.

Up until this point, in the U.S. the question of navigability was restricted solely to the submerged lands beneath tidally influenced waters just as it was within English common law. However, the 1851 case of *The Propeller Genesee Chief v. Fitzhugh* (53 U.S. 443 (1851)) brought this principle into question. The case concerned whether or not the federal government had admiralty jurisdiction over the nation's rivers and lakes as well as its tidal waters. The Supreme Court held that the tidal waters doctrine of common law was not appropriate for American jurisprudence as the geography of the United States, with its many navigable inland rivers and

lakes, was significantly different from that of England. The Court therefore rejected the tidal test as the sole qualifier of navigability and held that inland waters that were navigable in fact fall within federal admiralty jurisdiction. With the construct of navigability now expanded to include waters that are navigable in fact (versus just tidal waters) there subsequently arose a question of how to define “navigable in fact.”

This definition would come two decades later in the 1870 case of *The Daniel Ball* (77 U.S. 557 (1870)). In considering a question of interstate commerce and federal jurisdiction over it, the Supreme Court established what would become the classical definition of navigability:

*Those rivers must be regarded as public navigable rivers in law which are navigable in fact. And they are navigable in fact when they are used or are susceptible of being used in their ordinary condition as highways for commerce over which trade and travel*

*are or may be conducted in the customary modes of trade and travel on water.*

This definition highlights several elements that must be considered when assessing navigability. The ruling established commerce (in the form of trade and travel) as the test for navigability. In other words, for a waterbody to be navigable it must have supported or been susceptible to supporting commerce. The susceptibility component indicates that there does not need to be an established history of commerce for a waterbody to be navigable so long as the characteristics of that waterbody indicate it could support such use. The definition also specifies that the waterbody must be in its ordinary condition, essentially stating that it could not have been modified to make it more or less navigable (such as by dredging or the construction of a dam). Further, this definition states that navigability is based on trade and travel upon water, therefore, use while frozen (for example a frozen river being used as

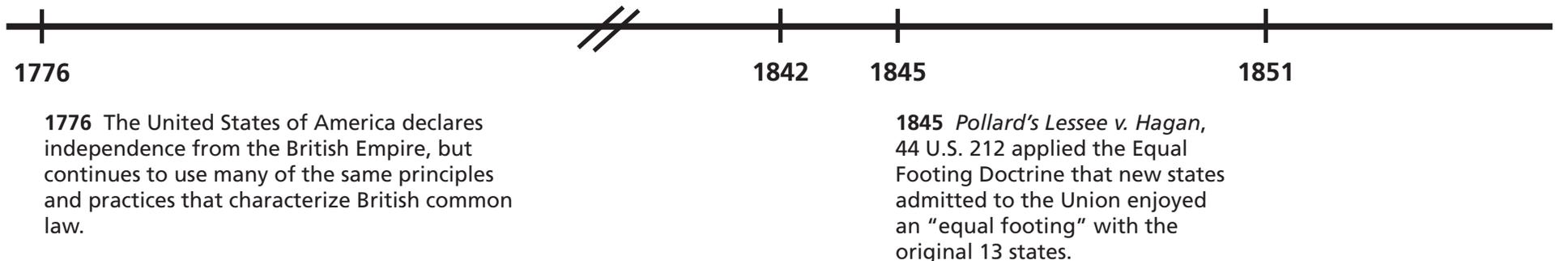
a dogsled route) is not evidence of navigability. Finally, *The Daniel Ball* definition states that the commerce evidencing navigability must be conducted in the customary modes of trade and travel on water. This means that the waterbody must be capable of supporting commerce in crafts that would be typically used.

With the definition for navigability finally in place it was then refined over time. In 1874 in *The Montello*, the Supreme Court held that the presence of a portage along a waterbody did not render it non-navigable (*The Montello*, 87 U.S. 430 (1874)). In 1922, the Court ruled in *Oklahoma v. Texas* (258 US 574 (1922)) that waters that were only navigable during periods of spring flooding were not navigable for title purposes.

1953 saw the passage of the Submerged Lands Act (43 U.S.C. § 1301 et seq.), which codified the long-affirmed principle of state ownership of the submerged lands of navigable waters into

## Navigable Waters Timeline

The following depiction is a summary of major decisions over time that has defined the issue of *navigability*.



statute and further refined the parameters of navigability.

The Act specified the time of statehood as the timeframe to be considered when determining navigability. That means that when considering evidence of navigability, the conditions of the waterbody at the time of statehood, as well as the types of crafts that would be customary at this time, must be considered. The Act also delineates the boundary of the submerged lands as being the line of the ordinary high-water mark (often taken to be the line of permanent vegetation for the sake of simplicity). Finally, the Act also specifies that title moves with instances of accretion, erosion, and reliction. In other words, title moves with the slow, natural migration of the meanders of a waterbody over time. However, title does not move in instances of avulsion, where the course of a river rapidly redirects.

The second half of the 20<sup>th</sup> century saw further refinement of the definition. The 1979 appeal of Doyon Ltd. to the Alaska Native Conveyance

Approval Board offered several criteria specific to Alaska (ANCAB RLS 76-2, 86 I.D. 692 (1979)). The Board held that evidence of private use of a waterbody can demonstrate susceptibility, that poleboats, tunnel boats, and outboard motor-powered riverboats were customary crafts in Alaska at the time of statehood, and that present day recreational use can serve as corroborative but not definitive evidence of navigability. In 1983, the District Court for Alaska ruled that use of a waterbody for floatplane landings is not evidence of navigability (*State of Alaska v. United States*, 563 F. Supp. 1223 (1983)).

More recently, navigability was considered by the Supreme Court in the 2012 case of *PPL Montana v. Montana* (565 U.S. 576 (2012)). In this case, the Court established that modern recreational use could be evidence of susceptibility if it is proven to be meaningfully similar to customary use at the time of statehood. Perhaps more significant, however, was that the Court affirmed the practice of segmenting waters for navigability determinations.

We can then synthesize from this caselaw a definition of a navigable water as *one that is actually used or is susceptible to being used as a highway for trade, travel, and commerce in the waterway's natural and ordinary condition (at the time of statehood) in crafts customary at the time of statehood*. Though far from comprehensive, this history demonstrates how navigability was and continues to be an evolving construct.

### Navigability Criteria

Now that we have a definition of navigable, we will take a closer look at some of the criteria for assessing navigability. A key component in the *Daniel Ball* definition of navigable is that the waterbody must be able to accommodate commerce. It is important, then, to consider what commerce would include. Generally, commerce in this context would be the existence of trade and travel across a waterbody. However, it is important to distinguish between commercial activity and boating in general.

**1870** *The Daniel Ball*, 77 U.S. 557 established the classic definition of navigability, highlighting the elements that must be considered to assess navigability: (1) support or susceptible to support commerce; (2) ordinary condition (not modified); (3) customary modes of trade and travel on water (typical kinds of watercraft).

**1922** *Oklahoma v. Texas*, 258 U.S. 574 determined that rivers that were only navigable during periods of spring floods are not navigable.



**1874** *The Montello*, 87 U.S. 430 allowed rivers that required portages to be navigable.

An individual taking a canoe down a river on a recreational trip would not be an example of commerce, as it does not represent trade and travel. The simplest way to demonstrate that a waterbody was useful for commerce is to have clear historical evidence of trade and travel, for example photographs and written records of steamships transporting supplies or people on a river.

In many cases in Alaska however, no such historical record exists. Therefore, navigability becomes a question of the susceptibility for commerce rather than actual commercial use. In such instances, modern-day non-commercial activities can be evidence of navigability if it can be shown that the watercrafts employed are meaningfully similar to those that would have been customarily used for trade and travel at the time of statehood (*PPL Montana v. Montana* (565 U.S. 576 (2012))). We will elaborate more on what “meaningfully similar” means later, but for now we should maintain our focus on commerce.



Historical photograph showing clear evidence of commerce.  
ALASKA DIGITAL ARCHIVES



Example of a boat that would have been customarily used in Alaska at the time of statehood.  
VALDEZ MUSEUM

A major consideration in assessing if an activity demonstrates commerce or the susceptibility for commerce is the weight in cargo a watercraft can transport. The issue of how much carrying capacity is necessary to constitute commerce is not an entirely settled

legal question. In Alaska, the clearest guidance comes from the 1979 appeal of *Doyon Ltd.* (ANCAB RLS 76-2, 86 I.D. 692 (1979)). In this case, the board recommended that a net carrying capacity of 1,000 pounds could be used as a minimum threshold for commercial loads.

**1953** Submerged Lands Act codified state ownership of submerged land under navigable waters, refined navigability to specify the timeframe of navigability as at the time of statehood, and defines the boundary of submerged lands as the ordinary high-water mark.

**1979** Alaska Native Conveyance Approval Board determined that poleboats, tunnel boats, and outboard motor-powered riverboats were customary crafts in Alaska at the time of statehood.



When examining evidence of commerce, another important consideration is whether there is a lack of actual use of a waterbody despite the conditions existing for that use. For example, if trade and travel commonly occur adjacent to a waterbody, but never actually make use of that waterbody to accommodate those commercial activities, that evidence would weigh against the waterbody being navigable (*Oklahoma v. Texas*, 258 U.S. 574 (1922); *Muckleshoot Indian Tribe v. FERC*, 993 F.2d 1428 (9<sup>th</sup> Cir. 1993)). However, the presence of an alternate route of commerce alone does not make a waterbody non-navigable.

With a clearer understanding of how commerce is defined and interpreted in the context of navigability, we can now move to a discussion of customary crafts and meaningful similarity. *The Daniel Ball* definition specifies that commerce must be conducted in the “customary modes” of trade and travel on water. Because the time of statehood is the point in time being considered (as specified by the Submerged Lands Act) that means that

“customary modes” would refer to watercraft that were customarily used in Alaska at the time of statehood on January 3, 1959.

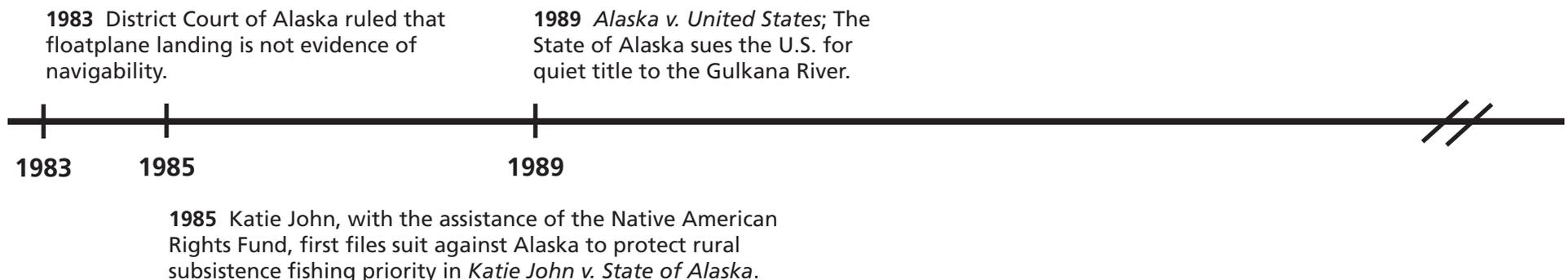
Guidance on what types of watercrafts were customary in Alaska at the time of statehood comes from the 1979 appeal by Doyon Ltd. (ANCABRLS 76-2, 86 I.D. 692 (1979)). The board found that pole boats, tunnel boats, and outboard motor-powered riverboats were customary crafts in Alaska at the time of statehood. If these types of crafts are capable of carrying a commercial load (at least 1,000 pounds) they could indicate that a waterbody was susceptible to supporting commerce at the time of statehood (and would therefore likely be navigable).

There has been some disagreement between the United States and the State of Alaska over what types of crafts were customary at statehood. For example, the U.S. has not agreed with the State that jet boats were customary at statehood based on their very limited availability in Alaska in 1959 (*State of Alaska’s Mot. For Summ. J., Alaska v. United States*, No.

3:12-cv-00114-SLG (D. Alaska 2015)). During litigation over the Gulkana River, the court did not list jet boats as being customarily used on that river at statehood (*Alaska v. United States*, 891 F.2d 1401 (9<sup>th</sup> Cir. 1989)). If a waterbody is only traversable in modern crafts that are not meaningfully similar to crafts customary at statehood, then that waterbody would not be navigable (*PPL Montana v. Montana* (565 U.S. 576 (2012))).

With that being said, it is worth discussing what “meaningfully similar” means. In *PPL Montana v. Montana* (565 U.S. 576 (2012)) the court ruled that modern day, non-commercial use could be evidence of navigability if it can be shown that the crafts employed are meaningfully similar to crafts customary at the time of statehood. When assessing if a modern craft is meaningfully similar to a craft customary at statehood, a number of factors can be considered.

Just as weight capacity is an important consideration in determining susceptibility to



commerce, it is also an important characteristic to examine when assessing if a modern craft is meaningfully similar to a customary one. If a modern craft is capable of carrying much greater loads than a customary craft of the same size, they likely would not be meaningfully similar. Additionally, draft requirements (or how far into the water a boat sits) are important to consider. If a modern boat capable of carrying commercial loads can be used in only a few inches of water while a customary boat requires deeper water to carry the same load, those two crafts would not be meaningfully similar.

In addition to weight capacity and draft depth, the material a craft is constructed from is also an important consideration. The materials used to construct inflatable rafts have made advancements since 1959. Therefore, modern inflatable rafts may be much more resistant to puncture and abrasion than inflatable rafts available at statehood. As such, these modern rafts would be able to traverse much shallower and rockier waterbodies than rafts at statehood likely could, thus the modern rafts likely are not

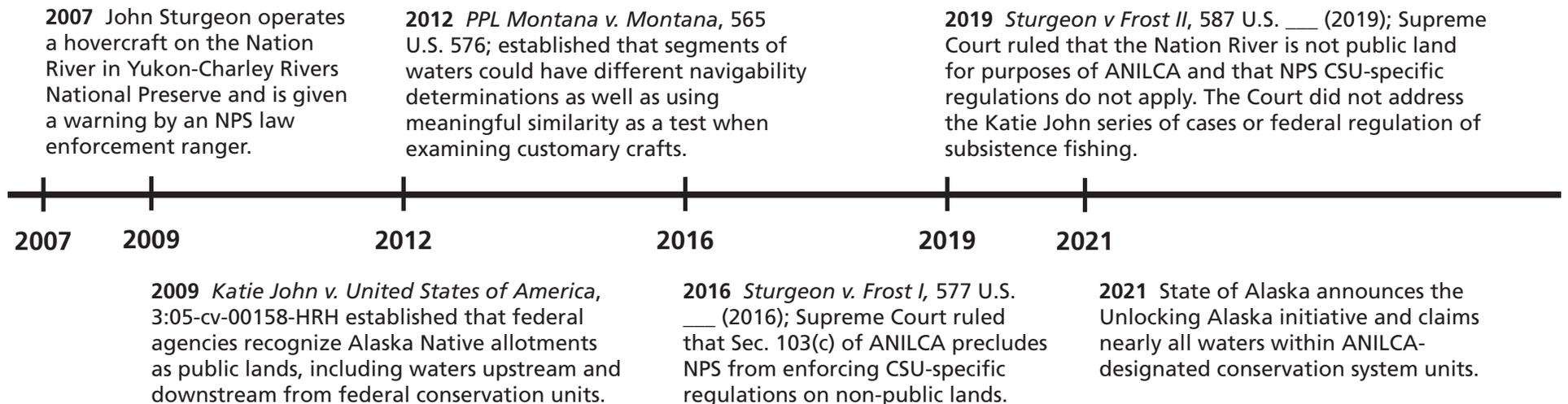
meaningfully similar to rafts customarily used at statehood. Further, modern rafts often include features such as upturned bows and sterns as well as aluminum rowing frames that provide increased mobility—features that were not common on statehood-era inflatable rafts.

A watercraft's means of propulsion is another important characteristic to consider when assessing a craft's meaningful similarity to crafts customary at statehood. As noted earlier, there is dispute as to whether jet boats were customary at the time of statehood in Alaska. When compared to propeller-driven boats (which were certainly customary at the time of statehood) jet boats can be used in extremely shallow waters. Prop boats rely on a spinning propeller, which must stick further down into the water column to propel the craft. This spinning propeller runs the risk of striking objects along the bed of a waterbody and becoming damaged, which limits the boat's ability to be used in shallow waters. In contrast, a jet does not need to stick as far down into the water and does not have a spinning propeller which can become damaged

or tangled, enabling jet boats to be used in much shallower waters. Given this drastic difference in maneuverability, and the lack of widespread jet boats in Alaska at the time of statehood, this type of craft likely would not be meaningfully similar to a craft customarily in use at statehood.

Now that we have considered different questions about commerce and watercraft, we can move to a discussion about the characteristics of waterbodies themselves. As we noted earlier, historical evidence of commerce occurring on a waterbody is the most convincing evidence for navigability. However, in many if not most instances—particularly in Alaska where many waterbodies are remote and have no history of development—there is little to no historical record. In those instances, navigability becomes a question of susceptibility for use as a highway of commerce rather than actual documented use.

When considering susceptibility, we are often-times examining the physical characteristics of a waterbody and assessing if those characteristics



would make it useful as a highway for commerce. The depth and gradient (slope) of a waterbody are both important physical characteristics to consider. There is no clear caselaw that establishes specific threshold values for what depths and gradients would make a waterbody navigable, and every waterbody is considered case-by-case based on its particular facts. However, if a waterbody were so steep that it couldn't safely or reasonably accommodate trade and travel it very likely would not be navigable. Likewise, if a waterbody only had a depth of several inches and could not support a vessel carrying a load of cargo it very likely would not be navigable.

Another important physical characteristic to consider is the presence of obstructions along a waterbody that would inhibit travel, such as rapids, boulders, or log jams. The presence of obstructions does not automatically make a waterbody non-navigable. Though the presence of obstructions may make navigation quite difficult, if they can be reasonably portaged around and if the waterbody overall can still support trade and travel it may be navigable (*Oregon v. Riverfront Prot. Assoc.*, 672 F. 2d 792 (9<sup>th</sup> Cir. 1982)). However, to be navigable the waterbody must still provide a route that is long enough to be useful and valuable in transportation (*N. Am. Dredging Co. of Nev. v. Mintzer*, 245 F. 297 (9<sup>th</sup> Cir. 1917)).

Alongside obstructions, it is also important to consider seasonality when assessing susceptibility. If a waterbody can only be navigated during periods of temporary high water, such as during seasonal floods, or if watercraft must be repeatedly dragged or carried the waterbody is likely non-navigable (*United States v. Oregon*, 295 U.S. 1 (1935)).

A final thing to note regarding susceptibility and physical characteristics is that a waterbody must be in its natural and ordinary condition at the time of statehood. This means that a waterbody cannot have been modified from its natural condition at the time of statehood to make it more or less navigable. If a waterbody could only be traversed after modification, for example by dredging, then it would not be navigable. Conversely, if a waterbody could have been traversed prior to statehood, but a dam was constructed post statehood that made it impassible, that waterbody could still be navigable since it is the natural and ordinary condition at the time of statehood that must be considered.

#### **Navigability in Alaska: Implementation and Implications**

Though the State of Alaska owns the submerged lands beneath navigable waters, there is an important exception: lands that were federally reserved at the time of statehood. If lands were reserved at statehood, and if the withdrawal included intent to reserve the submerged lands, those submerged lands remain in federal ownership regardless of navigability. This applies to the several pre-statehood parks in Alaska—portions of Denali, Katmai, Glacier Bay, and Sitka.

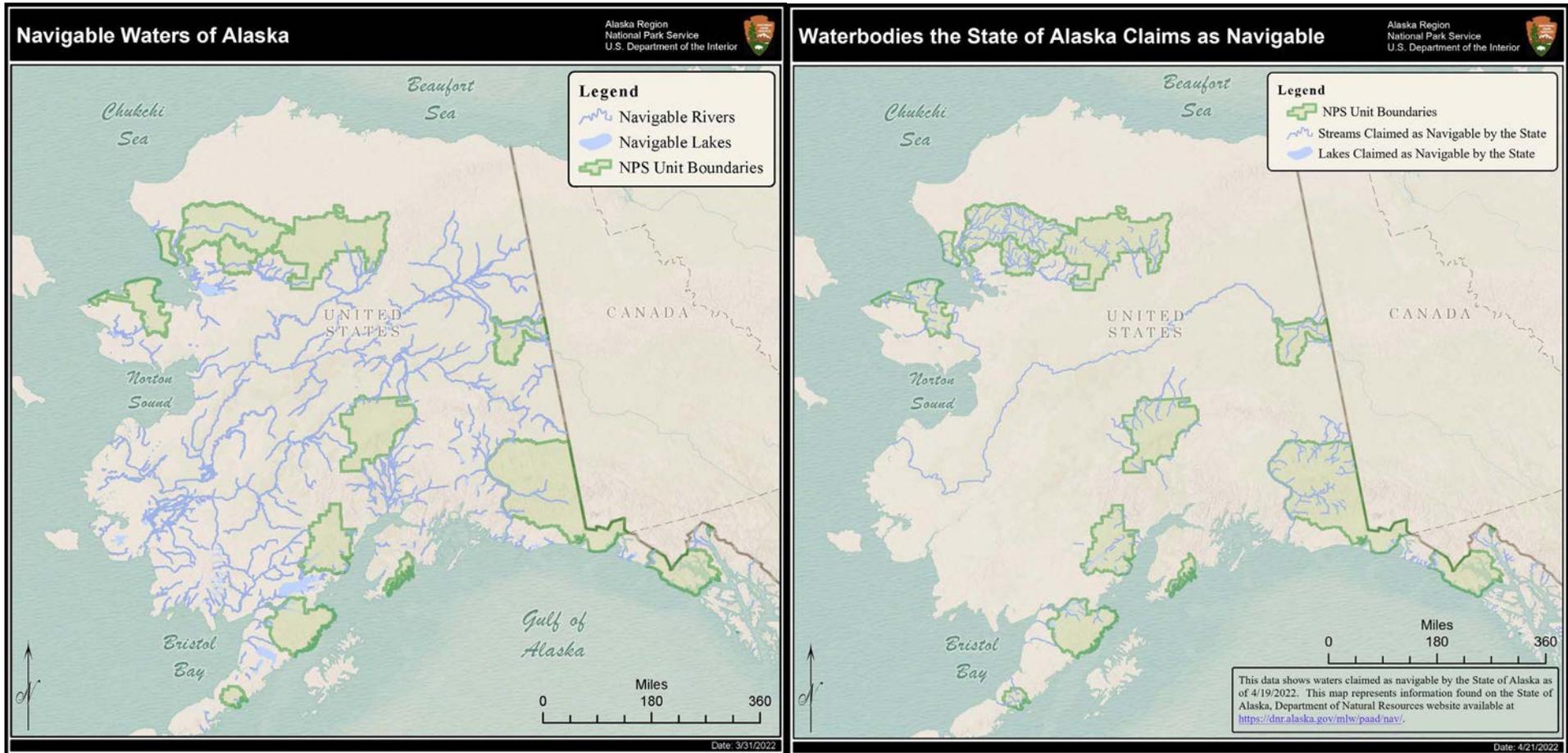
If there is no valid pre-statehood withdrawal for a waterbody, ownership of submerged lands (and jurisdiction over them) becomes a question of navigability. The Bureau of Land Management (BLM) is delegated the authority to make navigability determinations under the Federal Land Policy and Management Act (43 U.S.C. § 1701 et. seq.) and is the sole agency with authority to issue navigability determinations

that have legal bearing. BLM does this as a part of the land conveyance process to avoid accidentally conveying State-owned submerged lands to another party.

When BLM makes navigability determinations, they consider the available historical evidence demonstrating a waterbody's use as a highway for commerce. In the absence of historical evidence, BLM also considers the physical characteristics of a waterbody (such as depth, gradient, seasonal variability, and the presence of obstructions) and if those characteristics indicate that it would be susceptible to commerce.

Other agencies such as the NPS or the Alaska Department of Natural Resources may conduct their own research on navigability and publish those findings, but these assessments and any subsequent assertions of ownership and jurisdiction do not have legal bearing in the way that BLM determinations do.

There are two mechanisms for ultimately resolving title. The first of these is known as a Recordable Disclaimer of Interest, or RDI, and is an administrative process for clearing cloud on the title of submerged lands. As an administrative process, an RDI is intended to provide a mechanism for resolving cloud over title that is less costly and time consuming than litigation. The State can apply for an RDI through BLM by submitting a legal description of the claimed lands along with any evidence for navigability, and if the U.S. agrees with the evidence presented federal interest in the title is disclaimed. If BLM decides that the evidence for navigability presented within the RDI application is insufficient they may deny the application, at which point the State can



appeal the decision to the Interior Board of Land Appeals—an appellate review body for the Department of the Interior.

In instances where the State chooses to not proceed with the RDI process, title can be litigated through what is known as a Quiet Title Action or QTA. The State can file a complaint in federal district court to adjudicate the issue of title to the submerged lands. To do this, the State must have grounds for their complaint such as the federal government taking a management action on State-claimed waters (for example

the issuance of a BLM determination of non-navigable). Before the State may file a complaint, they must provide the United States with a 180-day notice of intent to file a Quiet Title Action.

There is a contentious history of disagreement between states and the U.S. over navigability and Alaska is no exception. Following the outcome of the *Sturgeon II* decision, the State has become much more aggressive in asserting claims of ownership of submerged lands within federally protected areas. In 2021, it announced its "Unlocking Alaska" initiative in which Alaska

The map above on the left illustrates the waters determined as navigable, in relation to national parklands. The map above on the right shows undetermined streams the State of Alaska claims are navigable within parklands.

has claimed ownership of nearly all waters within ANILCA-designated NPS units. In October of 2021 the State submitted a Notice of Intent to the U.S. to file a QTA for Twin Lakes, Turquoise Lake, and portions of the Mulchatna and Chilikadrotna Rivers within Lake Clark National Park and Preserve. In late April of 2022, the State of Alaska followed this up by filing a complaint within federal district court to quiet title to these submerged lands, thereby initiating litigation. In concert with filing for litigation, the State also submitted a notice of trespass to NPS for an NPS-owned dock on another waterbody within Lake Clark National Park and Preserve. Additionally, the State submitted a notice to cease and desist to the U.S. Forest Service for enforcing a regulation that prohibits the use of motorized watercraft on Mendenhall Lake.

Also, as a part of their initiative, the State of Alaska has released a web map that depicts most waters within CSUs as State owned, despite the lack, in most cases, of a BLM navigability determination or a final title resolution. This has the potential to mislead and confuse the public regarding whether these areas are subject to federal CSU regulations.

The outcome of *Sturgeon v. Frost II* has obscured the extent of the NPS's regulatory authority over the waters within NPS CSUs in Alaska. There are now valid concerns over what activities may occur on waters within parks. Activities that are authorized under State regulations, such as suction dredge mining, could now occur within the boundaries of NPS CSUs (see [ANILCA: A Perspective from Boots on the Ground](#)). This management challenge is compounded by increasingly aggressive assertions of ownership made by the State. All of this has left the NPS in an uncertain position

where land managers, in many cases, are not sure what they are able to manage, with no clear path forward on how to preserve these lands designated for protection by ANILCA.

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# ANILCA: A Perspective from Boots on the Ground

Andee Sears, Adrienne Lindholm, and Peter Christian, National Park Service

As might be expected from such a far-reaching piece of legislation, ANILCA is rife with ambiguities, contradictions, and complexities. These challenges are particularly acute for the National Park Service employees in the field charged with its implementation. Get an insider's view of how ANILCA plays out on the ground.

Citation:

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Many have called the Alaska National Interest Lands Conservation Act (ANILCA) the single most important piece of conservation legislation ever enacted.<sup>1</sup> This idea has become firmly fixed in the National Park Service (NPS) canon in Alaska, and as we commemorate the 40<sup>th</sup> anniversary of ANILCA, it's appropriate to recognize its successes.

On December 2, 1980, ANILCA created or added to thirteen national parks, sixteen wildlife refuges, two national forests, two national monuments, two conservation areas, and twenty-six wild and scenic rivers. It protected more than 104 million acres in Alaska, thereby enlarging the federal acreage for conservation in the state to 148 million acres. Nearly half of what was set aside—57 million acres—was designated wilderness, the highest level of protection for our federal public lands.

The ANILCA conservation system units are largely protected from permanent roads, industrial-scale tourism, logging, mining, oil and gas development, and damage from many types of access. The wilderness designation seeks to ensure that land managers approach decisions with humility and respect for the earth and its community of life, an approach that emphasizes values that are as essential to the well-being of our society today as ever before.

ANILCA's recognition of subsistence<sup>2</sup> serves as a model for balancing conservation and human uses on the landscape. Compared to many conservation laws, ANILCA clearly recognizes that these lands have been stewarded by Indigenous Peoples for tens of thousands of years. It assures the continued access to and use of traditional homelands by providing for the continuation of subsistence activities; reasonable access to subsistence resources; a preference for subsistence harvest over other consumptive uses; as well as for development, retention, and use of cabins and other structures to support subsistence uses.

The three authors, with a combined over 70 years of NPS field experience in Alaska, feel that it would be all too easy to mark the 40<sup>th</sup> anniversary of ANILCA by only highlighting ANILCA's superlatives. Given significant developments in recent years, we think it is important to be candid about ANILCA's challenges and shortcomings from an agency perspective.

In *Do Things Right the First Time: An Administrative History of the National Park Service and the Alaska National Interest Lands Conservation Act* (1985), then NPS historian G. Frank Willis<sup>3</sup> presciently wrote:

*Provisions protecting customary uses on conservation lands—access, cabins, subsistence—all seemed to hold the promise of future difficulties for managers from all agencies who were given too few, unclear, or contradictory directions for dealing with them.*

Willis' observation is an understatement relative to ANILCA and its implementation in Alaska over the past four decades.

While ANILCA put millions of acres of federal land into conservation system units, ANILCA is also rife with ambiguities, contradictions, and complexities that reflect the contentiousness of its passage. Agreement by members of Congress on the details both large and small was simply not possible. Congress left much to be resolved by federal land managers, the courts, or a future Congress. The consequence of not resolving ANILCA's ambiguities is significant—inaction establishes a norm that is difficult to change.

After four decades, we think it is appropriate to reflect on ANILCA and how it has been implemented. Has it achieved its intended balance between use and preservation? Has ANILCA succeeded in providing for a subsistence way of life by those in rural Alaska? Has it given managers the tools to preserve natural resources, protect wilderness values, and provide for recreational opportunities?

This article offers a perspective understood by long time federal land managers in Alaska, but not often publicly discussed. We offer a discussion from our "boots on the ground" perspective, as we help parks with their everyday decisions. Many challenges faced by park managers intersect with state sovereignty



A fishwheel on the Copper River used for Federal subsistence harvest of fish using customary and traditional means.  
PHOTO COURTESY OF AHTNA, INCORPORATED

issues: management of fish and wildlife, access across a large and relatively inaccessible state, and authority over navigable waters. In this article, we address these provisions of ANILCA that pose the most frequent and significant challenges for NPS: subsistence harvest and "sport" hunting, access methods that were "traditionally employed" by subsistence users, special access for "traditional activities," the significant ramifications of the recent *Sturgeon v Frost (Sturgeon II)* ruling on navigable waters, and the complexities of managing wilderness according to rules found in no other state in the country.

### The Promise of Subsistence

Providing rural residents the opportunity to continue their subsistence way of life is one of the primary purposes of ANILCA. Congress invoked its authority under the Property and Commerce Clause to make subsistence for rural residents the priority consumptive use for fish and wildlife resources.<sup>4</sup> For the subsistence user and the land manager, however, the rules are exceptionally complicated. For millennia, people have been moving across the landscape interacting with the natural world, hunting, fishing, and harvesting its resources. The rules set in motion by ANILCA dictate who can engage in customary and traditional lifestyles, what tools and methods they can employ, and where and when they can do it. The interplay between various state and federal regulations has created a complex regulatory landscape

that is challenging for users and managers to navigate.

In 1980, Congress envisioned the State of Alaska would implement ANILCA's rural subsistence provisions and serve as the primary entity managing harvest of fish and wildlife on federal public lands. While it started out that way, it changed after Sam McDowell sued the State of Alaska arguing it was violating the State of Alaska Constitution by providing a preference for subsistence based on where one lives. The Alaska Constitution states "fish, wildlife, and waters are reserved to the people for common use"<sup>5</sup> and further provides "use or disposal" of those resources applies "equally to all persons similarly situated..."<sup>6</sup> McDowell argued providing rural residents a priority for harvesting fish and wildlife violated these provisions of the State of Alaska Constitution.<sup>7</sup> The State Supreme Court agreed,<sup>8</sup> forcing the State to decide whether to amend its constitution or have the federal government assume management of subsistence in order to effect ANILCA's rural subsistence preference. After several years of debate, Alaska was unable to come to a consensus on amending the State Constitution, and a new regulatory entity—the Federal Subsistence Board<sup>9</sup>—was established to manage subsistence harvest of fish and wildlife on federal public lands under ANILCA.<sup>10</sup> Importantly, the Federal Subsistence Board did not assert jurisdiction to regulate subsistence fishing on navigable waters.

Predictably, the legal conflict over subsistence shifted to fishing a few years later. Two Ahtna Athabascan elders, Katie John and Doris Charles, sued the Department of the Interior, arguing the federal government had an obligation to provide for a rural subsistence priority for

harvest of fish, as well as wildlife. This led to a series of decisions, collectively referred to as the Katie John cases, from the Ninth Circuit<sup>11</sup> that remain controversial today.<sup>12</sup> The Ninth Circuit agreed with Katie John and Doris Charles that ANILCA's rural subsistence priority also applies to fishing on "public lands," a term defined by ANILCA.<sup>13</sup> In short, this term means lands, waters, and interests which are federally owned.<sup>14</sup> As discussed later in this article, lands beneath navigable waters are owned by the State of Alaska in most cases.<sup>15</sup> Waters are not subject to traditional ownership principles; rather, the law recognizes the right to reserve waters for use.<sup>16</sup> The Ninth Circuit found that when Congress set aside conservation system units in Alaska, it also reserved (by implication) waters necessary to achieve ANILCA's purposes, one of which is subsistence.<sup>17</sup> Accordingly, those reserved waters within and adjacent to conservation system units are "interests" to which the United States has "title," which makes those waters fall within ANILCA's definition of "public lands."<sup>18</sup> As "public lands" under ANILCA, the Ninth Circuit's decision obligated the federal government to provide a rural subsistence priority on those waters in absence of the State doing so.<sup>19</sup> This led to the expansion of the Federal Subsistence Board's role to manage subsistence fishing as well as harvest of wildlife.<sup>20</sup>

The Katie John decision remains controversial today. Many Alaskans wanted the Governor to request review by the U.S. Supreme Court.<sup>21</sup> Many Alaskans wanted to amend the State Constitution in order to return management of subsistence under ANILCA to the State.<sup>22</sup> Neither has happened. The result is a complex management scheme involving the

State of Alaska, the Federal Subsistence Board, and individual bureaus like the National Park Service.<sup>23</sup> As a subsistence user or a federal land manager, it requires navigating regulations from all three entities, and understanding the interplay between the three sets of rules when there is a gap or a conflict between them. It is far from simple and there is nothing on the horizon indicating future simplification. Does this regulatory framework succeed in achieving Congress's direction to "provide the opportunity for rural residents engaged in a subsistence way of life to continue to do so"?

### **Wildlife Regulations and "Sport" Hunting in National Preserves**

In addition to rural subsistence harvest (now regulated by the federal agencies post-*McDowell*), ANILCA authorizes "sport" hunting and trapping in national preserves under state law as long as it is consistent with federal law and regulations. Decades ago, however, the State dropped the term "sport" from their hunting regulations and instead uses the terminology "general" and "subsistence" hunting. This change in terminology causes considerable confusion on the ground since subsistence under ANILCA's provisions is federally managed and limited to rural residents. Hunting in national preserves under state subsistence regulations actually falls under ANILCA's "sport" provisions.<sup>24</sup> In short, when regulators (or the public) refer to subsistence, it is often unclear whether they are referring to federal subsistence under ANILCA (which is limited to rural residents) or state subsistence (which post-*McDowell* is available to all Alaska residents—whether they live in a rural or urban setting).<sup>25</sup>



A bear-baiting station in Wrangell-St. Elias National Preserve. This bait station is a combination of bread and dogfood, likely topped with a sweetener, such as syrup. This practice raises concerns about food conditioning in wildlife and public safety around food-conditioned bears. NPS PHOTO

ANILCA's stated intent is that national preserves be managed in the same way as national parks—consistent with the NPS mission—with the exception that sport hunting and trapping are allowed. The State rejected these requests and declined to accommodate the different management objectives for NPS national preserves, saying that they manage wildlife populations in Alaska regardless of who owns or manages the land on which those populations are located.<sup>26</sup> On the ground, this meant liberalizing hunting practices for predator species in order to reduce predation predominantly on moose and caribou.<sup>27</sup> The ANILCA conflict that erupted concerned management of parks and preserves—where the NPS strives for natural wildlife abundances and

diversity<sup>28</sup> and the State's goal to manage wildlife to support "a high level of human harvest of game[.]"<sup>29</sup> NPS sought to avoid this conflict by requesting the State exclude national preserves from some specific harvest practices—taking bears over bait, taking bear cubs and sows at den sites with artificial light, and extending the season for taking wolves and coyotes (including pups) when pelts have little value.<sup>30</sup> The State rejected these requests because it is the State's view that it manages wildlife populations in Alaska regardless of who owns or manages the land where those populations are located.<sup>31</sup>

NPS took action in 2015 to achieve the same result—to exempt national preserves in Alaska from these harvest practices—through federal rulemaking. This rule, specific to "sport" hunting and trapping, relied on the following clause in ANILCA to restrict these harvest practices "within national preserves the Secretary may designate zones where and periods when no hunting, fishing, trapping, or entry may be permitted for reasons of public safety, administration, floral and faunal protection, or public use and enjoyment."<sup>32</sup> Despite this statutory provision, the State argued that the NPS exceeded its authority in adopting these restrictions and that such restrictions must be predicated upon biological data<sup>33</sup> demonstrating potential to impact the sustainability of the population.<sup>34</sup>

A change in the federal administration resulted in a reversal of that position. In 2020, the Department of the Interior (DOI) published a second rule rescinding the 2015 rule, determining such hunting practices can be allowed in national preserves in Alaska consistent with federal law and exercised its discretion to do so. Controversy, including

litigation, over whether such practices are consistent with federal law and policy for national preserves continues.<sup>35</sup> This conflict could have been avoided in multiple ways: (1) Congress could have included a definition of "sport" hunting in ANILCA with respect to harvest in national preserves, (2) they could have been more clear in providing NPS authority to *restrict* state-authorized harvest practices in order to maintain natural abundances in a naturally functioning ecosystem, or (3) they could have provided for exclusive management to the State rather than recognizing federal authority to regulate wildlife harvest in national preserves.

### ANILCA's Overlapping Access Provisions

Providing an opportunity for subsistence users to continue their way of life depends on ensuring reasonable access to hunting and fishing areas. To that end, Congress authorized "snowmobiles, motorboats, and other means of surface transportation traditionally employed" including in designated wilderness.<sup>36</sup> The issue that comes up repeatedly for managers regarding this provision of ANILCA is whether All-Terrain Vehicles (ATVs also referred to as Off-Road Vehicles or ORVs) are allowed in those areas open to subsistence. It does appear that ATVs are "other means of surface transportation," but it is less clear whether they were "traditionally employed," especially since ANILCA again does not define this key term. Is the term given meaning at the time ANILCA was passed? In other words, must a specific method of access have been "traditionally employed" in 1980? Or, does an agency have discretion to allow a method of access that wasn't an established or "traditional" in 1980—including in wilderness—but has since developed, perhaps



Pre-1980 off-road vehicle.  
PHOTO COURTESY OF RAY BANE



Modern off-road vehicles.  
NPS PHOTO



In some parks, it is not uncommon for rangers charged with resource protection to encounter people with their ATVs stuck deep in the mud. Is this the type of “reasonable access” that Congress sought to balance with resource protection?

NPS/KEVIN MEYER

Off-road vehicles used in Alaska at the time of ANILCA’s passage could not reliably travel far or across rugged terrain. It is reasonable to assume that the limited access afforded by pre-1980 equipment (left) was the type of access envisioned by the authors of ANILCA as being compatible with the purposes of the new conservation system units. On the other hand, many new machines (such as those pictured here) are more common, can travel deeper into undeveloped country, and are less destructive because they are wider and lighter. Some tracked vehicles have only two pounds per square foot impact.

through unauthorized use? And how should evolving technologies be accommodated? The four-wheelers and side-by-side utility vehicles that are common in many places today have evolved considerably from the types of vehicles that were capable of off-road use in the years preceding ANILCA.

Shortly after ANILCA was passed, many parks used management plans to review whether ATVs were traditionally used for subsistence. Given the limited availability and use of these types of vehicles, it is not surprising that the NPS determined in almost all cases they were not “traditionally employed.”<sup>37</sup> As technology evolved and ATVs became more affordable, there has been interest in revisiting those determinations.<sup>38</sup> Given the ambiguity

regarding this access authorization and the fact that ATV use is not generally allowed in parks, it is a challenge for land managers to navigate in a manner that is consistent with the law and also supportive of opportunities to continue a subsistence way of life. In those areas where ATV use has been determined to be “traditionally employed” or has otherwise become an established use, one can’t overlook that ATVs have an unmistakable impact on the landscape.<sup>39</sup>

The “Special Access” provision<sup>40</sup> of ANILCA is another authorization for access that challenges NPS managers. This authorization applies in all conservation system units, which is defined by ANILCA to include all NPS units, including wilderness and units that predate

ANILCA. In this provision, Congress authorized “snowmachines..., motorboats, airplanes, and other means of nonmotorized surface transportation for traditional activities... and travel to and from villages and homesites[.]” This authorization applies in all conservation system units (which includes all NPS units in Alaska), including designated wilderness and units that predate ANILCA. Note that the language partially overlaps with the subsistence access section, but there are important differences. First, this provision does not require the person engaging in the “traditional activity” to be a rural subsistence user. Second, the qualifier on whether a method is authorized is not based on whether the specific method was “traditionally employed” but rather whether it is being used to support a “traditional activity” or “travel to



An early (pre-1980) snowmachine.  
NPS PHOTO



A modern snow machine. Is this an example of the use of snowmachines for traditional activities?  
PHOTO COURTESY OF BOB RANEW

and from villages and homesites.” Third, it does not authorize ATVs since surface transportation methods are limited to nonmotorized means.

The ambiguity introduced by ANILCA’s undefined term “traditional activity” is a primary source of NPS management challenges. For example, is it lawful to use a snowmachine to access a mountaineering route on Mount Sanford, a 16,237-foot mountain in Wrangell-St. Elias National Park and Preserve popular with climbers? What is the activity that managers should analyze to determine if it falls within ANILCA’s authorization for snowmachines for “traditional activities:” (1) use of the snowmachine, (2) recreational mountain climbing, or (3) recreation in general? If

recreation generally is the activity evaluated under this provision of ANILCA, what activities are *not* included in this “special” access provision?<sup>41</sup> Would such a broad interpretation allow snowmachines on all NPS lands, including wilderness, in Alaska? And if so, why was the qualifier of access for “traditional activities” even included in the statutory authorization? Would this really be consistent with Congress’ authorization for “special” access? There are no definitive answers to these questions. In the absence of an answer in ANILCA, NPS has generally adopted a management stance accommodating a broad view of what would be included as a “traditional activity.”<sup>42</sup>



Park visitors often ask if it is legal to ride a bicycle in designated wilderness, an activity that is clearly prohibited in Lower-48 wilderness areas. ANILCA makes no mention of bicycles; however, the “Special Access” section authorizes “nonmotorized surface transportation methods,” a term that is not defined in the statute. Further complicating management of bicycles in parks is the fact that implementing regulations expanded the statutory authorization to remove the qualifier “traditional activities” and “travel to and from villages and homesites.” In other words, under federal regulations, these methods can be used for any activity, even in designated wilderness.<sup>43</sup>  
PHOTO COURTESY OF ERIC PARSONS

## Waters and Navigable Waterways

Until 2019, NPS managed waters within Alaska parks similar to the surrounding federal uplands, as is done elsewhere in the National Park System.<sup>44</sup> On the ground, this meant that if a park was closed to hunting, individuals were not allowed to hunt from a river within the park below the high-water line. It meant that NPS regulations pertaining to vehicle and vessel use, fuel and property storage, hunting and fishing, solid waste disposal, mining, and other activities applied to these waterways regardless of who owned the submerged lands. The State of Alaska and some user groups however, argued that ANILCA precluded NPS from exercising regulatory authority over navigable waters, pointing to section 103(c) of ANILCA:<sup>45</sup>

*Only those lands within the boundaries of any conservation system unit which are public lands (as such term is defined in this Act) shall be deemed to be included as a portion of such unit. No lands which, before, on, or after the date of enactment of this Act, are conveyed to the State, to any Native Corporation, or to any private party shall be subject to the regulations applicable solely to public lands within such units. If the State, a Native Corporation, or other owner desires to convey any such lands, the Secretary may acquire such lands in accordance with applicable law (including this Act), and any such lands shall become part of the unit and be administered accordingly. (emphasis added)*

NPS long understood its regulation of waters as not being barred by section 103(c) since they do not apply “solely” to federal public lands within



Chitina River within Wrangell-St. Elias National Park and Preserve. What activities are allowed on the water and the areas up to the ordinary high-water mark? It depends on who owns the submerged land in this segment.

NPS PHOTO

the parks—rather, NPS regulations applied regardless of ownership of the submerged lands.<sup>46</sup> NPS also pointed to the numerous references in ANILCA regarding protection of waters<sup>47</sup> and the fish and wildlife that depend on them, express authorization in ANILCA to regulate boating and fishing, as well as the Katie John precedent discussed above.<sup>48</sup> The U.S. Supreme Court, however, was unpersuaded by the NPS interpretation of 103(c).

At issue in *Sturgeon v. Frost* (2019), was a moose hunter who sought to use a hovercraft on the Nation River within Yukon-Charley Rivers National Preserve. Hovercraft are not allowed

within parks under NPS regulations.<sup>49</sup> The Nation River is navigable and the submerged lands are owned by the State.<sup>50</sup> In rejecting the NPS interpretation of section 103(c), the Supreme Court ruled that NPS regulations did not apply to activities on waters because neither the submerged lands nor the water itself was federally owned.<sup>51</sup>

On its face, some believe the *Sturgeon II* decision is or should be narrowly confined to the facts before the court: use of hovercraft on a navigable waterbody where ownership of submerged lands is confirmed to the State. However, the basis of the court’s decision hinged

on a broader interpretation of the law—that NPS can only regulate activities on (or in the case of waters, over) federally owned lands. For this reason, the most appropriate implementation of the law extended the Court’s ruling to other NPS regulations besides the hovercraft rule. That said, the interpretation of section 103(c) adopted by the Court has far-reaching impacts and has introduced widespread ambiguity on what activities are allowed or not, and what rules apply where, and will likely take many decades to resolve. For example:

- Can a Wasilla hunter hunt moose along the Chitina River in Wrangell-St. Elias National Park, an area only open to subsistence harvest by rural residents?<sup>52</sup>
- Will a Fairbanks gold miner be able to operate a suction dredge in the Wild and Scenic Charley River in Yukon-Charley Rivers National Preserve?<sup>53</sup>
- Should an Anchorage resident who has a summer home on Lake Clark be able to harvest salmon in the lake with a net?<sup>54</sup>
- Can an out-of-state hunter harvest swimming caribou in the traditional Native hunting area at Onion Portage in Kobuk Valley National Park?<sup>55</sup>
- Are visitors from out of state eligible to drive ATVs along gravel bars within Denali National Park?<sup>56</sup>
- Is it permissible for the State of Alaska to conduct aerial wolf control on the frozen Yukon River in Yukon-Charley Rivers National Preserve?<sup>57</sup>

The current NPS position is clear—these



Recently, a ranger in Lake Clark National Park stood at Silver Salmon Creek watching visitors getting too close to bears at the creek. When asked about enforcing NPS wildlife distance viewing rules, the ranger replied: “Can you tell me if this creek is navigable?”

PHOTOS COURTESY OF KATHY WADE (LEFT) AND NPS/PETER CHRISTIAN (RIGHT)

activities are not precluded by NPS regulation if the submerged lands are not federally owned.<sup>58</sup> The problem facing federal land managers and the public is a definitive answer on who owns the submerged lands. While it is a question of federal law to be settled by federal authorities, the State of Alaska has made and published its own assertions of navigability/ownership<sup>59</sup> which has resulted in confusion on who owns submerged lands and who has authority to make such determinations.<sup>60</sup> How should these uses be managed in the absence of such an ownership determination, in particular in the absence of a federal determination?

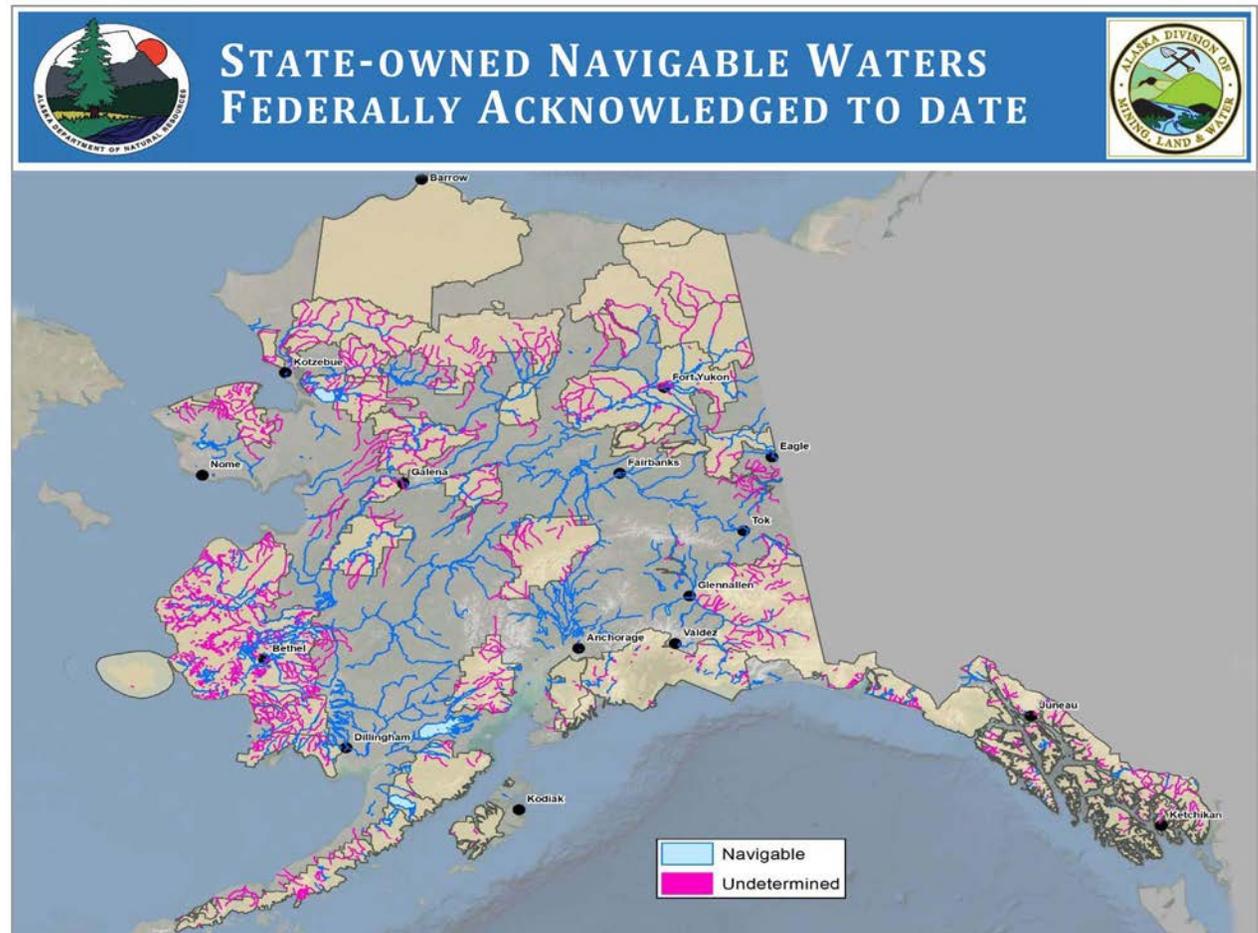
Ownership of submerged lands depends on navigability, which is based on historical use and the physical characteristics of the waterbody at the time of statehood (1959 for Alaska).<sup>61</sup> Further, these determinations are made on a

case-by-case *and* segment-by-segment basis.<sup>62</sup> Depending on the remoteness of the waterbody (or more precisely, the segment), documenting the physical characteristics can take months and cost tens of thousands of dollars.<sup>63</sup> Prior to *Sturgeon*, NPS didn’t seek to determine who owned the submerged land when managing, regulating, and enforcing park rules. Post-*Sturgeon II*, the primary question confronting NPS managers is whether any given waterbody is navigable.

The circumstance that complicates the *Sturgeon II* decision more than the justices were surely aware, is that ownership of the submerged lands below most waters within the 54 million acres of NPS-managed lands is unknown. Indeed, within parks in Alaska, there are more than 100,000 miles of rivers and more than one million acres of lakes. Of these waters,

title is only settled in the pre-statehood portion of Glacier Bay and fewer than a dozen water segments—one of which is the Nation River, at issue in the *Sturgeon* case.<sup>64</sup>

It will likely take many decades to resolve ownership of submerged lands. So, what does management look like in the meantime? Consider the list of examples above. Should NPS manage all waters without a federal navigability determination as though they are federally owned in the interim? Or should NPS adopt the opposite approach, taking a hands-off stance absent a federal determination that the United States holds title to the beds? The best approach is a collaborative agreement on interim management with the State. However, on March 26, 2021, Alaska asserted State jurisdiction over many waters within NPS areas that lack a federal navigability determination, making the likelihood of such an agreement unlikely.<sup>65</sup> Additionally, State officials are actively encouraging the public to engage in activities on these waters as though they are not subject to NPS regulation.<sup>66</sup> For those members of the public seeking to avoid being caught in the legal fray, how should NPS managers respond to their inquiries on what they can and can't do? Whose rules apply to specific waters? Is the response to the public that they are assuming risk with legal consequences if they choose to engage in an activity that is not consistent with NPS regulations and it turns out the area is federally owned? If it is not federally owned, how many people would be deterred from doing something that turns out to be legal? What is the liability risk to the agency and individual employees if they enforce NPS rules in an area that is later determined to be nonfederal land? On the other hand, what are the consequences of failing to protect lands



Most water bodies, especially in parks, have undetermined status related to navigability. Also see, [ANILCA, Navigability, and Sturgeon](#) for more discussion on the issue of navigability. MAP PREPARED BY THE STATE OF ALASKA

and resources in areas later determined to be federally owned and part of the National Park System? How does ANILCA, as it is currently understood, ensure proper stewardship of land and waters within conservation system units in Alaska?

### ANILCA's Unique Wilderness

The primary mandate of the 1964 Wilderness Act is to preserve wilderness character by ensuring protection of the undeveloped, natural, and untrammled qualities of wilderness, opportunities for solitude or primitive and unconfined recreation, as well as other features of value. Recognizing the vast undeveloped landscape in Alaska, ANILCA directed agencies to apply the same high standards for preservation as mandated by the 1964 Wilderness Act while simultaneously allowing special provisions that accommodate things like motorized transportation methods and facility development. ANILCA was not meant to wholly supplant the Wilderness Act, but rather make exceptions where necessary based on Alaska's remote environment and large size. The main challenge for federal wilderness stewards in Alaska is to preserve wilderness character in light of the several allowances (e.g., snowmachines) not usually allowed in wilderness. On paper, ANILCA provides federal land managers tools for achieving the delicate balance between protecting resources, subsistence opportunities, and other public uses.<sup>67</sup> However, from a practical standpoint, it is often not politically feasible for managers to use these tools. The on-the-ground consequence is that ANILCA's ambiguities are often resolved in the direction of compromising resource protection.<sup>68</sup>

The ambiguities of ANILCA provisions

related to special access, subsistence access, waters, cabins, and temporary structures have created enough uncertainty that they prevent land managers from curtailing uses that degrade wilderness character. When it comes to wilderness rivers in particular, *Sturgeon II* created a complex network of state inholdings everywhere a navigable waterbody flows. The Noatak River, the Alatna River, the Charley River, even Lake Clark itself, and many other waterbodies, have now become problematic for federal managers. What is Lake Clark National Park without Lake Clark? What is the Noatak Preserve without the Noatak River? After the *Sturgeon II* decision, wilderness areas that once seemed so large and unbroken are now functionally fragmented by every river and waterbody without a federal navigability determination. Such fragmentation makes it difficult, if not impossible, to protect an intact ecosystem when the area is sliced into smaller pieces.

If Alaska's wilderness areas are fragmented by navigable waters, have mechanized and motorized uses occurring throughout them, and are degraded by actions like predator control that aim to manipulate wildlife populations; what makes Alaska wilderness different from other public lands? These challenges present significant barriers for wilderness managers to preserve.

### The Next 40: Options for Stewarding Parklands in Alaska Under ANILCA

We realize we have raised a number of significant issues and management challenges posed by ANILCA, highlighting how it currently plays out on the ground. We see three options for how parklands in Alaska are stewarded for future generations: (1) accept the *status quo*, (2) managers can "fill the gaps" and attempt to

resolve some of the conflicts created by the law, or (3) Congress steps in with new legislation to resolve ambiguity and conflicts.

#### The Status Quo

The *status quo* option means continuing to struggle with the ambiguities, uncertainties, and conflicts discussed in this article. For subsistence, rural residents and managers will continue to muddle their way through the complex network of regulations pertaining to harvest that are adopted by several agencies with overlapping authority, sometimes in a manner that is not consistent with the federal law. For harvest of wildlife outside of Title VIII, "sport" hunting includes essentially any state authorized harvest activity, whether it is state subsistence, recreational hunting, or trophy hunting. It means an out-of-state recreational hunter can harvest a swimming caribou alongside a rural subsistence user. It means a hunter seeking a trophy can use dog food as bait to attract a brown bear. It allows a Fairbanks resident to harvest a black bear sow with cubs in the den just like a rural subsistence user engaging in a customary and traditional practice.

On access, it means ORVs are likely to become more common and penetrate deeper into parklands, likely bringing with it biophysical and visual impacts to the landscape. For "special access," it means snowmachines will likely be used throughout parks<sup>69</sup> for any given number of activities. Motorboats, airboats, bicycles, and airplanes will remain broadly allowed in all parks in Alaska, including wilderness.

With respect to waters inside parks, it means for many years to come, no one will know what rules apply to most waterways, what activities are authorized, who to get permission from or even

to whom to direct questions. Given this lack of clarity, it means new uses, some incompatible with how parks are managed, will become established. When ownership is finally resolved, only then will it be clear whether the use was appropriate or whether NPS must contend with an incompatible but now established use, something that has been proven over time and in many locations across the NPS to be exceptionally difficult to effectively address.

#### Fill the Gaps

Another option is for managers to “fill the gaps” where Congress left ambiguity and resolve conflicts to the extent permissible with administrative authority. Under this option, few changes are possible to address the challenges discussed for subsistence, however. As long as multiple agencies have management responsibilities, the regulatory landscape will be complicated. Ideally federal and state managers should work together to simplify and streamline rules to the extent possible. It would be naïve, however, to assume that a collaborative approach is feasible and would result in any real improvements. This reflects a number of factors—how far apart the state and NPS often are on many of these issues and more generally, the anti-federal (and specifically anti-NPS) sentiment prevalent in the state.<sup>70</sup> It also reflects the reality of multiple regulatory bodies having unique statutory missions (which drives different courses of agency action).

For harvest of wildlife outside of Title VIII, a range of options exist—assuming the *status quo* is not desired. NPS could define the term “sport hunting” and/or adopt regulations that outline specific practices that are (or are not) consistent with the term. Like the 2015 regulations mentioned above though, using administrative

authority is likely to result in litigation or political pressure on managers rendering administrative action difficult and possibly infeasible.

For the access conundrum, NPS could, for example, adopt regulatory definitions of key terms like “traditional activities” and “traditionally employed,” tiering off the definition of “traditional” adopted in general management plans in the mid-1980s for several parks. Under the definition in these plans, “a ‘traditional means’ [under 811(b)] or ‘traditional activity’ [under 1110(a)] has to have been an established cultural pattern... prior to 1978 when the unit was established.”<sup>71</sup> This would resolve much of the ambiguity created in 1980 surrounding these authorizations. However, these terms are used in reference to a variety of federal conservation lands in Alaska under charge of several federal entities, raising the issue of whether the various agencies should and can agree on a meaning. Additionally, since 1980, access methods authorized under ANILCA have become more common and more established, particular in the absence of any meaningful sideboards. If NPS seeks to adopt definitions that curtail uses and it is less than clear that the agency will be to carry it out due to political pressure. Additionally, a decision under one administration might be overturned or changed by the next one, as we have recently seen in several instances.<sup>72</sup>

With regard to waters, the Court’s interpretation section 103(c) leaves few options for the NPS to resolve ambiguity over management of activities on waters within Alaska parks. One potential option is for the NPS to adopt administrative standards to identify which waters NPS will or will not manage in the absence of a federal determination on

navigability or ownership of submerged lands. Alternatively, NPS could unconditionally accept the State’s navigability assertions as the basis for management (or lack thereof)—unless and until determined otherwise by a competent federal authority. The problem with the latter approach is the same as mentioned above: new uses not necessarily compatible with how parks are managed may become established, causing potentially irreparable harm if those areas are later determined to be federal. Further, once those uses are established, history shows it is difficult at best to curtail them.

#### Legislation

A third option is new legislation to address some of the ambiguities created in 1980 and challenges that have cropped up since. Legislation could simplify the subsistence regulatory framework and it could modify or expand subsistence opportunities. It could define key terms that have important bearing on wilderness management, such as “traditional activities.” It could also clarify for the public and managers how waters should be managed within park areas, a conflict the NPS has limited authority to address on its own. We recognize the likelihood of persuading a majority of Congress on a matter specific to a single state, and specifically one that is likely going to be controversial, is slim. There is also the possibility that legislation may create more ambiguities and conflicts than currently exist, potentially resulting in more impacts to resources and values of parklands in Alaska. However, legislation is likely the only viable way to address the problems created by the *Sturgeon II* decision and if resolution is desired on the other topics discussed above, the only practical option.

#### Conclusion

With respect to the size and scale of lands set aside, ANILCA is appropriately considered a highwater mark for conservation in North America. It protects largely intact ecosystems on an unprecedented scale in the United States. ANILCA parklands provide settings for life-altering experiences. They provide opportunities for the most remote and extreme wilderness adventures. They offer unique and unparalleled hunting opportunities. They provide settings for spiritual well-being and renewal, serve as an economic driver for the State of Alaska, inspire educators and artists, and help protect traditions for Alaska Native people. Parklands also stand as a more equitable model for environmental protection by providing a lens for rightly viewing parks and wilderness areas as places with long and complicated human histories.

We also recognize and acknowledge ANILCA's challenges and shortcomings. ANILCA introduced numerous ambiguities and conflicts. Implementing ANILCA has led to an extraordinarily complex regulatory patchwork difficult for the public and land managers to navigate. On the ground, ANILCA's ambiguities and conflicts are often resolved in the direction of compromising resource protection. Reflecting on these realities, we question whether ANILCA struck the right balance between use and preservation. Has it succeeded in protecting Alaska Native customary and traditional ways of life? Does ANILCA truly provide land managers with the tools they need to protect existing uses while also preserving wilderness character? Did Congress really intend to allow motorized access for any activity in wilderness? Is it appropriate that waters within parks in Alaska are cherry-stemmed, fragmenting the units

into many small pieces, introducing new uses incompatible with how NPS-managed uplands are protected? Given *Sturgeon II*, what will future courts decide about protection of wild and scenic rivers within federal conservation areas in Alaska? Did Congress really intend to pass legislation for national interest conservation system units that exclude many rivers, streams, lakes, riparian zones, and biological hot spots from protection? Will land managers be able to keep the promise of federal subsistence on waters within conservation units?

Under the current trajectory, federal land managers face rough waters for ANILCA's next 40 years. Should managers—and more importantly, Congress and the American people—continue to accept ANILCA's ambiguities and complexities along with the resultant consequences to resources, visitor experience, and subsistence? The easiest option is for managers to take no action to resolve these challenges; in other words, postpone actions and decisions, hoping to maintain the *status quo*. The effect of individual decisions, or lack thereof, may not be immediately felt, but the cumulative result becomes apparent over time: recreational use of snowmachines and airboats become established and accepted in Alaska wilderness, jet skis on Lake Clark, proliferation of ORVs with their resultant impacts, suction-dredge mining on the wild and scenic Charley River, gravel extraction below ordinary high water, sport hunting along waterways within national parks, and resource fragmentation and degradation that continue to eat away at the wild Alaska supposedly protected for the national interest.

We believe the current path is not consistent with the objectives and congressional record of ANILCA. Land managers could attempt to fill the statutory gaps by defining key terms, promulgating new regulations, or working to resolve conflicts through a cooperative management approach with stakeholders. While such an approach is within the agency's authority, it would be misleading not to acknowledge the difficulty—which could be insurmountable—of addressing high stakes controversial matters involving public use for the reasons mentioned above.

NPS is largely on the *status quo* path. We believe legislation is the only way to effectively address activities on waters within park units post-*Sturgeon*. We also believe that it is likely the only effective option for addressing many of the other challenges discussed in this article. However, even if Congress has the will to consider legislation, this approach does not come without risk and would not satisfy all interests. National and local interest groups will undoubtedly be highly interested and aggressively lobby to strengthen or weaken various provisions in the Act. Given the polarized and entrenched positions on land management in Alaska, it is likely that whatever comes out the other side of a legislative “fix” could create even more challenges for resource protection and for public land stewardship. The alternative is leaving unfinished business still undone, and a failure to safeguard the commitment to Alaska's subsistence community or to the responsible stewardship of the national interest—promises made by ANILCA forty years ago.

## END NOTES

- 1 Celebrating 35 Years of ANILCA (Dec. 2, 2015), <https://trustees.org/celebrating-35-years-of-anilca/>; <https://alaskaconservation.org/about/people/board-directors/> (last visited June 29, 2021); Williams, D., The National Action Imperative to Achieve 30 by 30, (May 2, 2021), <https://thehill.com/opinion/energy-environment/554819-achieving-30-x-30-climate-action-requires-national-and-local>.
- 2 The term “subsistence uses” as used in ANILCA means “the customary and traditional uses by rural Alaska residents of wild renewable resources for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation; for the making and selling of handicraft articles out of nonedible byproducts of fish and wildlife resources taken for personal or family consumption; for barter, or sharing for personal or family consumption; and for customary trade.” ANILCA § 803, codified at 16 U.S.C. § 3113.
- 3 Willis’s administrative history on ANILCA is widely regarded within NPS as the best source of agency history on ANILCA. G. FRANK WILLISS, “DO THINGS RIGHT THE FIRST TIME”: THE NATIONAL PARK SERVICE AND THE ALASKA NATIONAL INTEREST LANDS CONSERVATION ACT OF 1980, (National Park Service) (1985) available at [https://www.nps.gov/parkhistory/online\\_books/williss/adhi.htm](https://www.nps.gov/parkhistory/online_books/williss/adhi.htm).
- 4 The Act provides that “the taking on public lands of fish and wildlife for nonwasteful subsistence uses shall be accorded priority over the taking on such lands of fish and wildlife for other purposes. . . .” ANILCA § 804, codified at 16 U.S.C. § 3114.
- 5 ALASKA CONST., art. VIII, § 3.
- 6 ALASKA CONST., art. VIII, § 17.
- 7 *McDowell v. State*, 785 P.2d 1, 2 (Alaska 1989)
- 8 *Id.* at 8.
- 9 50 C.F.R. § 100.10(b).
- 10 Temporary Subsistence Management Regulations for Public Lands in Alaska, 55 Fed. Reg. 27,114 (June 29, 1990). See NORRIS, F., ALASKA SUBSISTENCE: A NATIONAL PARK SERVICE MANAGEMENT HISTORY, at p. 165 (Sept. 2002), available at [https://www.nps.gov/subjects/alaskasubsistence/upload/Norris\\_For\\_Web.pdf](https://www.nps.gov/subjects/alaskasubsistence/upload/Norris_For_Web.pdf).
- 11 *Alaska v. Babbitt*, 72 F. 3d 698 (1995); *John v. United States*, 247 F. 3d 1032 (2001) (en banc); *John v. United States*, 720 F. 3d 1214 (2013) (Katie John cases).
- 12 See, e.g., Anderson, R. *The Katie John Litigation: A Continuing Search for Alaska Native Fishing Rights After ANCSA*. 51 Ariz. St. L.J. 845 (2019). Wohlforth, C., Opinion: The Kavanaugh Supreme Court appointment would threaten Alaska Native subsistence, ANCHORAGE DAILY NEWS, (Aug. 14, 2018), available at <https://www.adn.com/opinions/2018/08/14/the-kavanaugh-supreme-court-appointment-would-threaten-alaska-native-subsistence/>.
- 13 *Alaska v. Babbitt*, 72 F.3d 698, 703-04 (9th Cir. 1995).
- 14 *Id.* at 701-02 (citing ANILCA § 102, codified at 16 U.S.C. § 3102).
- 15 See *Sturgeon v. Frost*, 139 S.Ct. 1066, 1074 (2019) (*Sturgeon II*).
- 16 *Id.* at 1078.
- 17 *Alaska v. Babbitt*, 72 F.3d at 703.
- 18 *Id.* at 703-74.
- 19 *Id.*
- 20 Subsistence Management Regulations for Public Lands in Alaska, 64 Fed. Reg. 1276 (Jan. 8, 1999).
- 21 Miller, H. K., On the Passing of Ahtna Elder, Katie John, INDIAN COUNTRY TODAY, (June 13, 2013), available at <http://indiancountrytoday.com/archive/on-the-passing-of-ahtna-elder-katie-john>; Norris, F., ALASKA SUBSISTENCE: A NATIONAL PARK SERVICE MANAGEMENT HISTORY, at p. 247 (Sept. 2002), available at [https://www.nps.gov/subjects/alaskasubsistence/upload/Norris\\_For\\_Web.pdf](https://www.nps.gov/subjects/alaskasubsistence/upload/Norris_For_Web.pdf).
- 22 Knowles Seeks Again to Resolve Decade-Long Subsistence Impasse, ALASKA JOURNAL OF COMMERCE, (Feb. 24, 2002) available at <https://www.alaskajournal.com/community/2002-02-25/knowles-seeks-again-resolve-decade-long-subsistence-impasse>; Subsistence Amendment Introduced by Knowles, SITNEWS -STORIES IN THE NEWS, (Feb. 14, 2002) available at [www.sitnews.org/0202news/021402\\_subsistence\\_amend.html](http://www.sitnews.org/0202news/021402_subsistence_amend.html); ALASKA SUBSISTENCE: A NATIONAL PARK SERVICE MANAGEMENT HISTORY, at p. 247 (Sept. 2002), available at [https://www.nps.gov/subjects/alaskasubsistence/upload/Norris\\_For\\_Web.pdf](https://www.nps.gov/subjects/alaskasubsistence/upload/Norris_For_Web.pdf).
- 23 For example, to engage in subsistence hunting in a national park in Alaska, one must meet Federal Subsistence Board regulatory requirements regarding eligibility. 50 C.F.R. § 100.5 (pertaining to rural residency and customary and traditional use determinations). The hunter must also meet NPS specific eligibility requirements which are found in 36 CFR Part 13, which states “[s]ubsistence uses

by *local rural residents* are allowed pursuant to the regulations of this subpart ....” 36 C.F.R. § 13.410 (emphasis added). NPS regulations define “local rural resident” for national parks and monuments as a person who resides in the park or monument “resident zone” (also a defined term) or has a permit from the park superintendent. 36 C.F.R. §§ 13.410, 13.420. The “resident zone” is specific to the national park or monument. See, e.g., 36 C.F.R. § 13.1902(a). Also, the hunter must possess an Alaska hunting license and “any pertinent permits, harvest tickets, or tags required by the State[.]” 50 C.F.R. § 100.6(a)(1), (3). The hunter must also determine whether any NPS rules further restrict harvest practices within the NPS unit. See, e.g., 36 C.F.R. § 13.480 (hunting closures and restrictions) and 13.450 (restrictions on using an airplane to access parks and monuments for subsistence hunting and fishing).

24 NPS attempted to resolve some of the confusion in rulemaking adopted in 2020 which stated harvest for “sport” means *any* harvest outside ANILCA’s rural subsistence provisions, including general (or recreational) hunting and state authorized subsistence. Alaska; Hunting and Trapping in National Preserves, 85 Fed. Reg. 35181, 35185 (June 9, 2020).

25 For example, the State authorized harvest of black bear cubs and sows with cubs at den sites with artificial light. 5 AAC 92.260(1), 5 AAC 92.080(7) (C). NPS objected to allowing the practice under ANILCA’s authorization for “sport” harvest and adopted rules prohibiting it in national preserves in Alaska. The State responded “[w]e further disagree that this limited, customary and traditional subsistence practice creates an unacceptable impact to preserve values...”. State of Alaska ANILCA Implementation Program, Comments on Proposed Changes to 2010 NPS Compendiums at p. 3 (Feb. 15, 2012).

26 ALASKA STAT. §16.05.255(k).

27 See, e.g., ALASKA STAT. §16.05.255(e); State of Alaska Department of Fish and Game Emergency Order on Hunting and Trapping 04-01-11 (Mar. 31, 2011) (on file with authors) (also available at Administrative Record for *Alaska v. Jewell et al.*, No. 3:17-cv-00013-JWS, D. Alaska pp. NPS0164632-35), State of Alaska Department of Fish and Game Agenda Change 11 Request to State Board of Game to increase brown bear harvest in game management unit 22 (2015) (on file with authors) (also available at Administrative Record for *Alaska v. Jewell et al.*, No. 3:17-cv-00013-JWS, D. Alaska pp. NPS0003786-88; Alaska Department of Fish and Game Wildlife Conservation Director Corey Rossi, “Abundance Based Fish, Game Management Can Benefit All,” ANCHORAGE DAILY NEWS (Feb. 21, 2009) (on file with authors) (also available at Administrative Record for *Alaska v. Jewell et al.*, No. 3:17-cv-00013-JWS, D. Alaska pp. NPS0121421-24); ADFG News Release—Wolf Hunting and Trapping Season extended in Unit 9 and 10 in response to caribou population declines (3/31/2011) (on file with authors) (also available at Administrative Record for *Alaska v. Jewell et al.*, No. 3:17-cv-00013-JWS, D. Alaska pp. NPS0164703-04); Alaska Department of Fish and Game Craig Fleener, Testimony to US Senate Committee on Energy and Natural Resources re: Abundance Based Wildlife Management (Sept. 23, 2013) (on file with authors) (also available at Administrative Record for *Alaska v. Jewell et al.*, No. 3:17-cv-00013-JWS, D. Alaska pp. NPS0144687-96), Alaska Department of Fish and Game, Hunting and Trapping Emergency Order 4-01-11 to Extend Wolf Hunting and Trapping Seasons in GMU [Game Management Unit] 9 and 10 (LACL and KATM) (Nov. 25, 2014) (on file with authors) (also available at Administrative Record for *Alaska v. Jewell et al.*, No. 3:17-cv-00013-JWS, D. Alaska pp. NPS0164699-702); ADFG Presentation Intensive Management of Wolves, Bears, and Ungulates in Alaska (Feb. 2009) (on file with authors) (also available at Administrative Record for *Alaska v. Jewell et al.*, No. 3:17-cv-00013-JWS, D. Alaska pp. NPS0004375-90).

28 NPS Management Policies, §§ 4.1 and 4.4.1 (2006), available at [https://www.nps.gov/policy/MP\\_2006.pdf](https://www.nps.gov/policy/MP_2006.pdf).

29 ALASKA STAT. §16.05.255(k).

30 Between 2005-2015, NPS objected more than 50 times to proposals to liberalize predator harvest practices (e.g., trapping bears, using snowmachines to take or pursue wolves, baiting brown bears) in areas that included preserves. Administrative Record for *Alaska v. Jewell et al.*, No. 3:17-cv-00013-JWS, D. Alaska pp. NPS0143855-60). See also NPS proposal to the Board of Game to exclude preserves from state regulation allowing harvest of black bear cubs and sows with cubs at den sites with artificial light (2010), Agenda Change Request to Alaska Board of Game from NPS to exclude preserves from predator harvest provisions restricted by NPS (11/6/2013). It is also worth noting NPS adopts state hunting regulations in the absence of a conflict with federal law or regulations. 36 C.F.R. §§ 2.2(b)(4), 13.42(a). Preemption of state hunting rules has occurred only in limited circumstances. See, e.g., 36 C.F.R. § 13.42(d) (prohibiting same day airborne harvest of most big game species in Alaska).

31 See ALASKA CONST., art. VIII, § 4; ALASKA STAT. 16.05.020(2); Board of Game Transcript for Statement of Chairman Judkins (Feb. 27, 2010) (on file with authors) (also available at Administrative Record for *Alaska v. Jewell et al.*, No. 3:17-cv-00013-JWS, D. Alaska pp. NPS0012673, 82-83); State of Alaska ANILCA Implementation Program, Comments on Proposed Changes to 2010 NPS Compendiums at p. 5 (Feb. 16, 2010) (“ADF&G is responsible for the sustainability of fish and wildlife in the State of Alaska, regardless of land ownership, and is the primary management authority for fish and wildlife, which includes determining healthy populations and allocating fish and wildlife—including for subsistence purposes—unless specifically preempted

by federal law.”) (on file with authors) (also available at Administrative Record for *Alaska v. Jewell et al.*, No. 3:17-cv-00013-JWS, D. Alaska pp. NPS0168520, 24); State of Alaska Department of Fish and Game, Comments on Proposed Changes to 2013 NPS Compendiums at p. 3 (Feb. 14, 2013) (“given the State’s responsibility to provide for the sustainability of all wildlife within its borders—regardless of land ownership or designation. . . .”) (on file with authors) (also available at Administrative Record for *Alaska v. Jewell et al.*, No. 3:17-cv-00013-JWS, D. Alaska pp. NPS0093987, 89).

32 ANILCA § 1313, codified at 16 U.S.C. § 3201.

33 Bear baiting is also prohibited in Chugach and Denali State Parks presumably to avoid safety concerns and user conflicts rather than biological concerns about the bear population. See 5 AAC 92.044(b)(1); [www.adfg.alaska.gov/static/regulations/wildliferegulations/pdfs/2020\\_2021\\_bear\\_baiting\\_seasons\\_and\\_requirements.pdf](http://www.adfg.alaska.gov/static/regulations/wildliferegulations/pdfs/2020_2021_bear_baiting_seasons_and_requirements.pdf) (last visited Jan. 3, 2022); State of Alaska Department of Fish and Game, 2020-2021 Alaska Hunting Regulations, at p. 27 (“Bait MAY NOT be used and bait stations MAY NOT be registered in the following areas: . . . Units 13E and 16A in Denali State Park.”).

34 See, e.g., State of Alaska ANILCA Implementation Program, Comments on Proposed Changes to 2012 NPS Compendiums at p. 3 (Feb. 15, 2012) (“The State asserts the proposed closures [to wolf and coyote harvest] at 13.40(e) for Aniakchak, Katmai, and Lake Clark National Preserves are unwarranted as no biological reason has been provided as justification.”); State of Alaska Department of Fish and Game, Comments on Proposed Changes to 2013 NPS Compendiums at p. 3 (Feb. 14, 2013) (“Service action implies a formal finding (but without corroborating evidence) that state management fails to ensure the conservation of species and sustained yield management principles. And given the State’s

responsibility to provide for the sustainability of all wildlife within its borders—regardless of land ownership or designation—and its authority, jurisdiction, and responsibility to manage, control, and regulate wildlife populations, including for subsistence purposes, unless specifically preempted by federal law, we are disappointed in the recent approach the Service has taken to preempt state harvest regulations.”); State of Alaska Department of Fish and Game, Comments on Proposed Rule RIN 1024-AE21 (Nov. 26, 2014). The State of Alaska and two hunting organizations sued the Department of the Interior over the 2015 rule, arguing that the rule was inconsistent with ANILCA. Complaint for *State of Alaska v. Jewell*, No. 3:17-cv-00013-JWS (D. Alaska), Complaint for *Safari Club International, Inc. v. Jewell*, No. 3:17-cv-00014 (D. Alaska), Complaint for Alaska Prof. Hunters Assoc. v. Jewell, 3:17-cv-00026-HRH (D. Alaska). These lawsuits were later dismissed after a new administration rescinded the 2015 rule. State of *Alaska v. Haaland et al.*, No. 3:17-cv-00013-SLG (June 24, 2021).

35 Repanshek, K., Conservation Groups File Lawsuit To Protect Predators On Park Lands, NATIONAL PARKS TRAVELER, (Aug. 26, 2020), <https://www.nationalparkstraveler.org/2020/08/conservation-groups-file-lawsuit-protect-predators-park-lands>.

36 ANILCA § 811, codified at 16 U.S.C. § 3121.

37 See, e.g., General Management Plans adopted between 1985-1986 for Cape Krusenstern, Denali, Gates of the Arctic, Kobuk Valley, Noatak, and Yukon-Charley Rivers. *But see*, General Management Plan for Wrangell-St. Elias (1986).

38 See, e.g., National Park System Units in Alaska, 73 Fed. Reg. 67,390 (Nov. 14, 2008).

39 See, e.g., National Park Service, Nabesna Off-Road Vehicle Management Plan, Final Environmental

Impact Statement (Aug. 2011); Ahlstrand, G. M., Racine, C. H. Response of an Alaska, U.S.A., *Shrub-Tussock Community to Selected All-Terrain Vehicle Use*. 25 ARCTIC AND ALPINE RESEARCH 142 (1993).

40 ANILCA § 1110(a), codified at 16 U.S.C. § 3170(a).

41 National Park System Units in Alaska; Denali National Park and Preserve, Special Regulations, 65 Fed. Reg. 37863, 37867 (June 19, 2000).

42 Only one NPS unit has adopted a definition of “traditional activity” through rulemaking. This regulatory definition, which relies on the consumptive use examples cited in legislative history, is quite narrow, and applies only to the former Mount McKinley National Park (an area mostly designated as wilderness). The on-the-ground effect of this definition is that snowmachines are not authorized in this area. 36 C.F.R. §§ 13.950-13.962; see also National Park System Units in Alaska; Denali National Park and Preserve, Fed. Reg. 65 FR 37863.

43 See 43 C.F.R. § 36.11(e). The qualifying language was also eliminated for motorboats and airplanes. See 43 C.F.R. 36.11(d), (f). An explanation for the expanded authorization is found in the Federal Register related to the rule. Transportation and Utility Systems in and Across, and Access Into, Conservation System Units in Alaska, 51 Fed. Reg. 31619, 31626 (Sept. 4, 1986).

44 A 1976 statute provides NPS authority over activities “on or relating to waters” within NPS units, regardless of ownership of submerged lands. In 1996, NPS clarified its regulations to remove ambiguity on this point. General Regulations for Areas Administered by the National Park Service and National Park System Units in Alaska, 61 Fed. Reg. 35,133 (July 5, 1996).

45 Codified at 16 U.S.C. § 3103(c).

46 36 C.F.R. § 1.2(a)(3) (1996). See Brief for the United States, *Sturgeon v. Frost II*, No. 17-949 at 12 (Sept. 2018). See also, Solid Waste Sites in Units of the National Park System, 59 Fed. Reg. 65,948 (Dec. 22, 1994), General Regulations for Areas Administered by the National Park Service and National Park System Units in Alaska, 61 Fed. Reg. 35,133.

47 ANILCA references the term “water” 151 times, “river” 180 times, “stream” 21 times, and “lake” 59 times. Many of the NPS units established by ANILCA are named for waterbodies within those units (i.e., Aniakchak, Lake Clark, Yukon-Charley Rivers, Noatak).

48 Authority to restrict boating is found in sections 811(b) and 1110(a), codified at 16 U.S.C. §§ 3121(b), 3170(a) respectively. Authority to restrict fishing is found in section 1313 (codified at 16 U.S.C. § 3201).

49 36 C.F.R. § 2.17(e).

50 Alaska Statehood Act, § 6(m), 72 Stat. 343, incorporating the Submerged Lands Act (43 U.S.C. 1301 et seq.).

51 “The Service’s rules will apply exclusively to public lands (meaning federally owned lands and waters) within system units. The rules cannot apply to any non-federal properties, even if a map would show they are within such a unit’s boundaries. Geographic inholdings thus become regulatory outholdings, impervious to the Service’s ordinary authority.” *Sturgeon II*, 139 S.Ct. at 1082.

52 Hunting is prohibited in national parks unless specifically authorized by statute. 36 C.F.R. § 2.2(b). Within national parks in Alaska, only subsistence by rural residents is allowed (see, e.g., enabling authorization for Gates of the Arctic and Wrangell-St. Elias National Parks in ANILCA sec. 201). Wasilla

is not considered “rural” under Federal subsistence rules. 50 C.F.R. § 100.23.

53 Mining and ground disturbance is prohibited under 36 C.F.R. §§ 2.1(a)(1)(iv), 5.14.

54 Fishing is limited to use of “hook and line” under 36 C.F.R. § 2.3(d)(1) except by federally qualified rural subsistence users in accordance with 36 C.F.R. § 13.470.

55 As a national park, only subsistence hunting by rural residents is authorized.

56 Use of all-terrain vehicles (also called off-road vehicles or ORVs) is generally not allowed in NPS units. See 36 C.F.R. § 4.10(a).

57 “Taking” wildlife is prohibited in national park system units unless authorized by statute. 36 C.F.R. § 2.2(a). ANILCA authorizes taking of wildlife for sport purposes and for subsistence. See supra note 52, ANILCA § 1313 codified at 16 U.S.C. § 3201.

58 Jurisdiction in Alaska, 85 Fed. Reg. 72956, 72958 (discussing the meaning of “ordinary regulatory authority”).

59 State of Alaska Navigable Waters Map at <https://mapper.dnr.alaska.gov/map#map=4/-16632245.12/8816587.34/0> (last visited Aug. 7, 2021).

60 State Policy on Navigability, at <https://dnr.alaska.gov/mlw/paad/nav/policy/> (last visited Aug. 7, 2021)

61 *The Daniel Ball*, 77 U.S. 557 (1870).

62 *PPL Montana, Inc. v. Montana*, 565 U.S. 576 (2012).

63 State Policy on Navigability, at <https://dnr.alaska.gov/mlw/paad/nav/policy/> (last visited Aug. 7, 2021).

64 Federal ownership of submerged lands in the pre-Statehood portion of Glacier Bay was confirmed by the U.S. Supreme Court in 2005. *Alaska v. United States*, 100 U.S. 1 (2005). Other waterbodies (or portions thereof) within NPS units subject to a federal navigability/ownership determination—all confirming ownership to the State—include the Alagnak River (Alagnak Wild River and Katmai), Muddy River (Denali), Kantishna River (Denali), Kukaklek Lake (Katmai), Nonvianek Lake (Katmai), Nonvianek River (Katmai), Kandik River (Yukon-Charley Rivers), Nation River (Yukon-Charley Rivers).

65 The State of Alaska also makes assertions of navigability. See State Policy on Navigability, at <https://dnr.alaska.gov/mlw/paad/nav/policy/> (last visited Aug. 7, 2021); State of Alaska Navigable Waters Map at <https://mapper.dnr.alaska.gov/map#map=4/-16632245.12/8816587.34/0> (last visited Aug. 7, 2021).

66 Alaska Department of Natural Resources, Unlocking Alaska Initiative, at <https://gov.alaska.gov/wp-content/uploads/sites/2/Unlocking-Alaska-Initiative.pdf> (last visited Aug. 7, 2021).

67 For example, the “Special Access” allowance in ANILCA authorizes land managers to adopt “reasonable regulations” and even prohibit access authorized under that section if such use “would be detrimental to the resource values of the unit or area.” ANILCA § 1110(a), codified at 16 U.S.C. § 3170(a). However, due to political pushback, restrictions or closures are often not feasible for NPS managers. *But see*, “Byers Lake [in Denali State Park] is closed to boats with gasoline operated motors and aircraft to insure the tranquility of the area.” <http://www.dnr.alaska.gov/parks/aspunits/matsu/byerslkcamp.htm> (last visited Aug. 5, 2021).

68 For example, in the northern part of Wrangell-St. Elias National Park and Preserve, areas where off-road vehicles have become an established use resulted in acreage being removed from wilderness eligibility. Regional Director, NPS Alaska Region Memorandum to NPS Director regarding Wrangell-St. Elias Wilderness Eligibility Reclassification, Nabesna Off-Road Vehicle Final Environmental Impact Statement (Dec. 19, 2011).

69 NPS restricted snowmachine use in the former Mt. McKinley National Park. 36 C.F.R. § 13.952.

70 Letter from Mike Dunleavy, Alaska Governor (received Dec. 1, 2021) (Dunleavy for Governor campaign donation solicitation).

71 See General Management Plans adopted between 1985-1986 for Cape Krusenstern, Denali, Gates of the Arctic, Kobuk Valley, Noatak, Wrangell-St. Elias, and Yukon-Charley Rivers.

72 See, e.g., Public Law 115-20, 131 Stat. 86 (Apr. 3, 2017).



Copper River, Wrangell-St. Elias National Park and Preserve.  
NPS PHOTO



# Alaska Native Rights Champion Katie John Lived What She Believed: Honesty, Trust, Love, and Forgiveness

*Ahtna, Incorporated*

Katie John was a beloved Ahtna Athabascan Elder and champion of Alaska Native rights. Decades of her dedication and commitment secured Alaska Native traditional hunting and fishing rights.

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*Every great culture in the world is known by their traditional foods and the survival of a culture depends on the people's ability to gather those foods. Katie fought for our right to access our traditional homelands because she knew that we need to be able to feed our families. It was a matter of cultural and human survival.*

—Ahtna President Michelle Anderson (quoted in [Alaska Senate Bill 78 sponsor statement](#))

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Katie John (1915-2013) was a beloved Ahtna Athabascan Elder and champion of Alaska Native rights. She was raised near the confluence of the Tanada Creek and the Copper River at the village of Nataeide (Roasted Salmon Place), more commonly known as Batzulnetas. The historic Batzulnetas village and fish camp lie within what is now Wrangell-St. Elias National Park and Preserve in the Southcentral region of Alaska. The Ahtna have lived in this area for at least two thousand years, and perhaps as long as 12,000 years (Reininghaus 2019).

Alaska became a state in 1959 and began managing fish and game in 1960. In 1964, the State closed the subsistence fishery at Batzulnetas and other traditional fishing sites in the upper Copper River and its tributaries. In response to this loss of access, Mrs. John spearheaded litigation for subsistence rights to the waters her family had always fished. To

her, subsistence was linked closely to values of community, balancing conservation, respecting cycles of life, and sharing. Her decades-long struggle to protect these rights culminated in a 2001 ruling by the Ninth Circuit Court of Appeals that the subsistence fisheries protections provided under Title VIII of the Alaska National Interest Lands Conservation Act (ANILCA) extended to all navigable waters in which the federal government owned reserved water rights, effectively allowing subsistence fishing to continue unrestricted in those areas. Mrs. John passed away before she could witness the final resolution of her nearly 30-year peaceful struggle, which made it all the way to the U.S. Supreme Court, but all Alaska Natives benefit from her victory. In 2019, the state of Alaska officially declared May 31 as a day to forever honor her legacy and recognize the far-reaching impact of her work.

Katie John near her family's fishwheel in Batzulnetas.  
PHOTO COURTESY OF ERIK HILL/ANCHORAGE DAILY NEWS



Left to right: Agnes Nicolai, Lucy Sam, Ben John, Katie John holding Fred John, Jr., Helen John-Hughs, and Ruth John-Hicks. This photo was taken at Mentasta Lake in 1943. UNIVERSITY OF ALASKA FAIRBANKS, [UAF-2009-1-9](#)

### The Early Years

Mrs. John was born in Slana, Alaska in 1915 to parents Chief Charley and Sarah Sanford. Her first job, at the age of 14, was washing clothes for workers at the Nabesna mine, and it was there that she began to learn English. At the age of 16, she married the late Mentasta Traditional Chief Fred John, Sr., and together they made Mentasta their home. They had 20 children, 6 of whom were adopted, and instilled in them the Ahtna Athabascan culture—living off the land, working hard, and respecting their elders.

Mrs. John was well regarded for her contributions to the preservation and teaching of her Native language and culture. She helped create the Ahtna alphabet and the first Ahtna Noun Dictionary. She dedicated a large portion of her life to teaching language and culture.

Mrs. John spent most of her life in the northern Wrangell Mountains, between the Nabesna and Slana rivers. She lived by the Slana River until the age of six when her family moved to Batzulnetuz. She then moved to Mentasta when she married but would return to Batzulnetuz every summer to fish. She told stories about fishing for salmon in Tanada Creek using a fish weir and traps. Tanada Creek is shallow with an even, slow current and level bottom, making it the perfect environment for

a fish weir. When the run was strong, both men and women were fully occupied in catching and preparing fish. The objective was to catch as many fish as possible at the beginning of the season, before the flies and damp weather in July and August made drying fish difficult. Mrs. John noted that her elders had precise knowledge of when the fish would run (John 1984).

In the 1940s, a federal game warden came to Batzulnetas and told Mrs. John's father that he was no longer to use fish traps in Tanada Creek. Mrs. John remembered: *Now this warden tell him something, and my Daddy don't understand. He feel bad. My daddy left Batzulnetas.* Her father never fished there again.

### Statehood and Federal Legislation

Alaska became a state in 1959 and assumed management of fish and game in 1960. The imposition of game laws on the Ahtna people who had always lived off the land pushed people to abandon their old way of life and assimilate to the new rules and regulations.

In 1964, the State of Alaska closed down the subsistence fishery at Batzulnetas and nearly all other traditional fishing sites in the upper Copper River and its tributaries. Closure of Batzulnetas to subsistence fishing ended its regular use as a fish camp. Nevertheless, Mrs. John and other residents of Mentasta village and Batzulnetas village and fish camp returned regularly to visit grave sites and to experience the spiritual and cultural satisfaction derived from being present where they grew up and where their ancestors made their home (Native American Rights Fund 2013).

After the passage of the Alaska Native Claims Settlement Act (ANCSA) in 1971, each of the 12

Alaska Native regions received land. Altogether, the Ahtna were entitled to 1.77 million acres, or 2,765 square miles of land, or only about seven percent of their traditional homeland. Today the remaining 93 percent of the Ahtna homeland is owned by the State of Alaska, the federal government, and private landowners.

In 1980, Congress passed the Alaska National Interest Lands Conservation Act (ANILCA). Non-Native people generally perceive the Ahtna homeland as vast, largely unoccupied, pristine wilderness. This view contributed to the determination in ANILCA to make much of Ahtna's traditional territory into a national park. ANCSA had reallocated lands in the Copper River Basin and made Ahtna, Incorporated a recognized landowner. ANILCA created a huge domain of public property, the Wrangell-St. Elias National Park and Preserve. Ahtna, Incorporated owns 600,000 acres of land within the park boundaries, lands that Ahtna Elders selected prior to the creation of the park.

Title VIII of ANILCA reestablished subsistence as a civil right in federal law. However, in a compromise with the State of Alaska, the Act stopped short of linking subsistence with Alaska Native cultural traditions and instead extended the subsistence priority to all rural residents, Native and non-Native. Under Title VIII of ANILCA, rural residents have priority over urban residents for subsistence hunting and fishing on federal lands when wildlife resources become scarce (Alaska National Interest Lands Conservation Act 1980).

### The Katie John Case

In 1983, Mrs. John and Doris Charles, along with the Mentasta Village Council, requested that the Alaska Board of Fisheries allow them to

fish at Batzulnetas, which the state had closed to fishing in 1964. Their request was denied, despite the fact that downstream users were permitted to take hundreds of thousands of salmon for sport and commercial uses. When the Board refused, Mrs. John and Mrs. Charles filed suit against the State of Alaska. Under ANILCA, the State was allowed to manage fish and wildlife resources on federal lands if the State complied with ANILCA and maintained a rural subsistence priority. Mrs. John and Mrs. Charles communicated through their lawyers that, by allowing commercial fishing at the mouth of the Copper River, but not allowing subsistence fishing at Batzulnetas, the State was in violation of the subsistence priority set out in section 804 of ANILCA.

The State opposed opening Tanada Creek to fishing, believing that existing regulations had "provided reasonable opportunity for Copper River subsistence fishermen to satisfy subsistence uses" (Alaska Department of Fish and Game 1988). In other words, if Mrs. John and Mrs. Charles wanted to fish, they had plenty of opportunity to fish elsewhere on the Copper River. State fisheries managers also believed salmon that spawned in Tanada Lake and other parts of the upper Copper River above the mouth of the Slana River were particularly vulnerable to overharvest. The State argued for conservation of the salmon for the greater good. Closing tributaries of the Copper River to subsistence fishing was one method of controlling the expansion of the fishery and protecting specific salmon stocks from being overfished, but this approach did not take into consideration the Ahtna peoples' intimate knowledge of fish runs and traditional ways of management.

After months of negotiations, the State agreed to open a fishery at Batzulnetas. In 1988, the Alaska Board of Fisheries (BOF) adopted the agreement, but Mrs. John and Mrs. Charles considered the regulations stipulated by the State to be too narrow. While the BOF was willing to provide limited opportunity to fish, that was not enough for Mrs. John and Mrs. Charles. For them, Batzulnetas was the perfect place to fish. It was considered by the Ahtna to be one of the preeminent fishing locations on the upper Copper River because of the opportunity it offered to catch early season fish as well as larger late-run fish that provided sustenance all winter for people and their dogs. In Mrs. John's eyes, fishing at Batzulnetas was part of the legacy she would leave to her grandchildren. In 1994, she told a reporter:

*I told you how many grandchildren I have. When I'm gone, how are they going to live? They got to have some way. They got to remember the way I learned. If they don't, they're going to be lost and won't know where they are . . . I don't do this for myself. I'm too old for that now. I'm thinking about the many days ahead.*

—Katie John, quoted in Hulen 1994: A1

Mrs. John and Mrs. Charles then petitioned the court for redress and received a preliminary injunction allowing full-time fishing rights at Batzulnetas. The court then declared the State's 1988 subsistence regulations invalid and ordered the BOF to pass new regulations that provided a subsistence priority at Batzulnetas.

However, in 1989, the Alaska Supreme Court, in *McDowell v. State of Alaska*, judged the State's subsistence law unconstitutional because it violated the State constitutional guarantee giving



Katie John was born in 1915 in the Headwaters country of the upper Copper River. Her parents were Chief Charley Sanford and Sarah Sanford. Mrs. John was widely known for her fight for subsistence hunting and fishing rights and for her contributions to the documentation of Ahtna history and culture.

PHOTO COURTESY OF AHTNA, INC.

all Alaska residents equal access to fish and wildlife resources. As a result, the State was no longer in compliance with Title VIII of ANILCA, and the Federal Subsistence Board (FSB) moved to take over from the State the management of subsistence hunting and fishing for rural Alaska residents on federal lands and waters.

The FSB imposed temporary fishing regulations mirroring those enacted by the Alaska BOF. Mrs. John petitioned the FSB to undo these regulations, but the FSB declared



In 2011, Katie John was presented with an honorary Doctor of Law degree from the University of Alaska Fairbanks. PHOTO COURTESY OF AHTNA, INC.

that Tanada Creek and the Copper River were navigable waters and, as such, were not under federal jurisdiction and not subject to ANILCA.

Mrs. John and Mrs. Charles then challenged the FSB, maintaining that by refusing to take control over management of subsistence fisheries on navigable waters, the federal government failed to meet its obligations to manage subsistence uses on federal lands. In March 1994, a federal district court ruled in favor of Mrs. John and Mrs. Charles, stating the federal government did indeed have the authority to manage subsistence fisheries on navigable waters.

The State of Alaska appealed the decision, but in April 1995 the ruling was upheld, and a subsequent attempt by the State to have the decision revisited failed. In 1999, the federal government took control of fish and game management on federal lands, effectively recognizing aboriginal subsistence rights. Even then, former Alaska Governor Tony Knowles

promised that he would fight the ruling on behalf of the State's interests. After having just lost its latest appeal, Governor Knowles knew he had a small window to file another appeal or the court ruling would become permanent. In 2001, before making his decision, Knowles met with Mrs. John at the site of her subsistence fish wheel—the same area that, years before, Mrs. John's father had put up his own fish trap to feed his family; the same area that a decade earlier, a State ranger told Mrs. John her fish wheel was illegal and must be taken down. Moved by what Mrs. John told him of her life and culture, Knowles returned to Juneau and decided not to appeal. "We must stop a losing legal strategy that threatens to make a permanent divide among Alaskans," he said at the time. "I cannot continue to oppose in court what I know in my heart to be right" (Native American News, Information and Entertainment 2001).

On May 7, 2001, the Ninth Circuit Court of Appeals reaffirmed the previous ruling that Title VIII's federal subsistence fisheries protections extended to all navigable waters in which the federal government owns reserved water rights, effectively allowing the continuation of subsistence activities in Batzulnetas and across the state.

### **Katie John's Legacy**

As it wound through the legal system, the "Katie John Case," as it became known, was a rallying point for Alaska Native subsistence rights. Protest marches in support of Mrs. John and Mrs. Charles in Anchorage attracted thousands of demonstrators, including the civil rights icon Rosa Parks. In one of these rallies, Mrs. John stated she was fighting for subsistence users and she wanted to put things back the way

they were before the State began issuing hunting and fishing licenses, “I don’t want nobody telling you better have a piece of paper. I don’t want that...”

Mrs. John and Mrs. Charles’s victory forced fisheries managers to open a fishery at Batzulnetas, but their success had wider ramifications. The Katie John Case pushed the federal government into assuming a more active role in the management of subsistence fisheries and expanded its jurisdiction to include fishing on more than half of Alaska’s navigable waters.

The Katie John decision stands as one of the few protections of Alaska Native traditional hunting and fishing rights, and the ruling helps defend how Native people live and use the land and waters of their homelands. However, a lack of recognition of Indigenous management makes it difficult for Native people to continue a customary and traditional subsistence way of life under current laws. The future of Copper River salmon depends on a management structure that incorporates science and traditional knowledge to ensure populations remain healthy.

In 2001, the Alaska Federation of Natives named Mrs. John Citizen of the Decade, and in 2020, USA Today named her one of the Women of the Century (USA Today 2020). Mrs. John’s legacy must be shared so that future generations can learn from her experience. Mrs. John’s granddaughter, Kathryn Martin, said her grandmother’s legacy was teaching “honesty, trust, love and forgiveness.” Mrs. John was a strong, traditional Ahtna Athabascan woman who spoke the truth from her heart. She lived what she believed. If not for Mrs. John and her fighter spirit, we would not have the subsistence rights we are still fighting to retain today.

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# ANILCA and Subsistence: Perspectives from a former Federal Subsistence Board Chair

Mike Fleagle, Retired, Federal Subsistence Board

ANILCA provides for subsistence use of Alaska's wild resources. But the law is ambiguous and complex in its interpretation and implementation. Alaska Native subsistence rights and Alaska resident subsistence rights are sometimes at odds. This perspective explains the provisions and the shortcomings of subsistence management.

Citation:

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As we celebrate the 40<sup>th</sup> anniversary of the Alaska National Interest Lands Conservation Act's (ANILCA) passage into law, we are presented with an opportunity to reflect on a particular section of the Act, Title VIII—Subsistence Management and Use Findings, and its impacts on fish and wildlife management for Alaska's rural subsistence users.

For millennia—or as many Tribal people prefer to say, *since time immemorial*—Indigenous Peoples have relied on the plentiful resources of the lands and waters of what would become known as Alaska for their sustenance, livelihoods, and cultural identity. While modern archeology and DNA analysis continue to investigate the arrival of *Homo sapiens* into the Americas, Alaska Native traditions generally say humans were created here and have always been here. This age-old (or infinite according to the Native perspective) dependence on natural resources for survival has been ingrained into the fibers of their persons and societies to the point of being the primary focus of their cultural identities at a deep spiritual level. According to this foundational tenet, to be Alaska Native is synonymous with being a subsistence user regardless of where they live.

The arrival of other ethnicities and cultures into Alaska through exploration, colonization, whaling, military activities, mining, fur trading,

mission building, etc., introduced competition for Alaska's wild resources. Control of Alaska by governmental entities, first by Russia, followed by the United States, and later the State of Alaska and its subsidiaries, brought about restrictions on traditional take of fish and wildlife with the implementation of new regulations. This made it even more difficult in many situations for Native people to find adequate resources or opportunities to fulfill their subsistence harvest needs. An unfortunate byproduct of this expansion and accompanying competition for resources, along with the establishment of more permanent communities that contributed to the discontinuation of nomadic lifestyles, was a higher reliance on missions, trading posts, military posts, and governmental assistance programs to satisfy basic needs, the latter of which continues to present itself often unfavorably today in many communities.

When Alaska joined the nation as its 49<sup>th</sup> state in 1959, one of the battle cries for statehood then was to “abolish the fish trap!” Under federal territorial management prior to statehood, many Alaskans felt oppressed in their ability to carry on subsistence harvesting while mismanagement or lack of management was occurring under the federal government's watch. The statehood fish trap reference was in response to unrestrained, unsustainable



My grandson Jadon carries the first grouse he harvested on a hunt with me.

PHOTO COURTESY OF MIKE FLEAGLE

fisheries occurring in some of Alaska's rivers. Under Alaska's control, management returned to a more local and perhaps more logical system (given the remoteness of Alaska to the United States Government) with the adoption of the new State Constitution. Article VIII of this document provides that its policy is to:

*encourage...the development of its resources by making them available for maximum use consistent with the public interest (Sec. 1)*

*provide for the utilization, development, and conservation of all natural resources...for the maximum benefit of its people (Sec. 2)*

*wherever occurring in their natural state, fish, wildlife, and waters are reserved to the people for common use (Sec. 3); and*

*Fish, forests, wildlife, grasslands and all other replenishable resources...shall be utilized, developed, and maintained on the sustained yield principle, subject to preferences among beneficial uses. (Sec. 4)*

With the new Constitution's emphasis on "people," "common use," and "uses" over Indigenous Alaskans' long-standing traditions of harvest, competition for resources continued to be an issue for many Alaska Native people. Because Alaska Natives had not been vanquished or relocated onto reservations by treaty as Native Americans had in the "Lower 48," they maintained that they had continual rights to at least some portion of Alaska's lands and waters, and importantly, accompanied by the aboriginal right to subsist without undue restriction on those lands and waters. Native claims were acknowledged, but determined not to be affected by Alaska's statehood.

The 1971 passage of the Alaska Native Claims Settlement Act (ANCSA) attempted to settle the question of Native claims to land ownership through the establishment of 12 for-profit regional corporations and numerous village corporations who hold title to over 40 million acres of land on behalf of Native peoples along with a monetary settlement. A 13<sup>th</sup> landless corporation was also formed to settle monetarily with Alaska Natives who resided outside of Alaska in 1971. The question of protecting aboriginal subsistence rights was deferred to the State of Alaska and the Secretary of the Department of the Interior to settle later. In 1978, Alaska created a subsistence priority

for all fish and wildlife uses, but failed to define “users,” which did nothing to protect Alaska Native subsistence rights, nor any other rural resident’s subsistence priority.

Despite the challenges Native people have faced in obtaining access to their traditional cultural practices of harvesting the natural resources they once relied upon largely without restriction, Native people nonetheless continued to practice subsistence harvesting and gathering where they could, often not in compliance with the published statutes or regulations governing said take. Most importantly, they kept the traditions alive and well among themselves and continued to pass the knowledge and practice along to subsequent generations.

I am a product of this generational passage of traditional cultural knowledge and practice, being of Inupiaq descent and having resided in Arctic or rural Interior Alaska communities for the majority of my life, living predominately off the land and waters and their fish and wildlife resources. As a child I was taught to harvest fish and small game to assist in feeding my family, and how to share in the bounty of those resources with other families. These traditions have been passed along to my children and grandchildren to carry on, hopefully in perpetuity.

ANILCA Title VIII made progress toward correcting deficiencies at the federal level in providing for Native subsistence opportunities, but still fell short of the goal to provide subsistence priority for all Alaska Natives, rather the law states that it applies to “subsistence uses by rural residents of Alaska, *including both Natives and Non-Natives*” (Sec. 801(1), emphasis added).

In the 40 years since ANILCA’s enactment, the State of Alaska adopted regulations to create a rural subsistence preference that were later determined to be unconstitutional by Alaska’s Supreme Court. Subsequently, the federal government began managing subsistence take on federal public lands and non-navigable waters. Management authority was later expanded to include navigable waters that are within, flow through, or are adjacent to federal lands. Attempts to bring a constitutional amendment to Alaska voters that would return a rural preference to all of Alaska have not been successful. Discussions that would add either a “rural Native only” (excluding non-Natives) or a “rural Native plus” (including non-rural Natives) clause have likewise failed to gain traction in appropriate fora.

Despite these challenges and shortcomings, Title VIII does provide some meaningful subsistence preferences for residents who live in rural communities that are within or near an applicable federal conservation unit and it also allows for the adoption of traditional practices not commonly accepted by state regulators.

The result to date is a contentious, complicated dual management system that Alaska appears to be destined to hold onto for the foreseeable future, creating disparity between those who have the ability to participate in subsistence activities on federal lands and waters and those who do not. ANILCA holds the key for future expansion of priority rights beyond the current legal and geographical constraints, but only if Alaska’s executive and legislative branches can work together to allow a constitutional amendment to be voted on by the people. Given the recent history of events, this may take a while.

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# Subsistence Harvest Monitoring of Pacific Salmon on the Kuskokwim River

Danielle Lowrey and Katherine Russell,  
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Subsistence harvest of salmon is vital to the way of life for many Alaska Native people. The monitoring and management of salmon is of utmost importance to ensure continued availability of this critical resource. A decline in salmon populations can create food insecurity in rural Alaska communities.

Citation:

Lowrey, D. and K. Russell. 2022. Subsistence harvest monitoring of Pacific salmon on the Kuskokwim River. *Alaska Park Science* 21(1): 62-67.

The Kuskokwim River drainage has provided a livelihood for Alaskan Natives for many centuries. Subsistence hunting and fishing is integrated into everyday life among many rural communities and remains an important component to sustaining life on the Kuskokwim. Subsistence harvest of all species of Pacific salmon on the Kuskokwim River plays a vital role in the way of life of the Yup'ik, Cup'ik, and Athabaskan Peoples. The Kuskokwim River supports one of the largest Chinook salmon (*Oncorhynchus tshawytscha*) subsistence fisheries in the state of Alaska. The subsistence harvest of Chinook salmon represents the largest harvest of any region in Alaska, accounting for nearly 43% of the statewide harvest in 2016 (Fall et al. 2019). However, with recent changes in environmental conditions, salmon populations and size are on the decline (Oke et al. 2020). Specifically, dramatic declines of Chinook salmon have resulted in subsistence fishers targeting other species of salmon, such as chum (*O. keta*), sockeye (*O. nerka*), pink (*O. gorbuscha*), and coho (*O. kisutch*; Godduhn et al. 2020). It is important to monitor these populations and work closely with fisheries management to sustain subsistence fishing for future generations.

Orutsararmiat Native Council (ONC) Fisheries Department works closely with

federal and state agencies, as well as local Tribal organizations on several fisheries research monitoring projects along the Kuskokwim. ONC also plays a large role in the Indigenizing Salmon Science & Management Project, a partnership with the University of Alaska Fairbanks. ONC has developed a strong fisheries program through collaborative processes, trust, and relationship building with local fishers and partner agencies. Two of ONC's on-going projects, the In-season Subsistence Harvest Monitoring Project and the Post-season Subsistence Harvest Monitoring Project, have been in operation for over 20 years and provide critical information for managing the salmon fishery on the Kuskokwim River.

The In-season and Post-season Subsistence Harvest Monitoring projects are both relevant to federal subsistence management as a majority of the Kuskokwim River drainage, where these projects are conducted, is contained within Federal Conservation System Units. The lower portion of the Kuskokwim River flows through the Yukon Delta National Wildlife Refuge (YDNWR). A portion of the Kuskokwim River headwaters, and critical salmon spawning habitat, is contained within National Park Service (NPS) lands in Denali National Park and Preserve and Lake Clark National Park and Preserve. In addition, the Bureau of Land Management has scattered holdings of land

Sockeye salmon in spawning colors make their way up the river.  
PHOTO COURTESY OF MICHAEL MELFORD

within the Kuskokwim River drainage. All residents of the Kuskokwim River drainage are federally qualified subsistence users, and the largest portion of the annual subsistence harvest on the Kuskokwim occurs within the boundaries of the YDNWR. Federal rural subsistence users are given harvest priority on federal public lands where customary and traditional use patterns exist as required in the Alaska National Interest Lands Conservation Act (ANILCA) of 1980.

The Kuskokwim area subsistence salmon fishery is one of largest in the state in both number of participants and number of fish harvested (Fall et al. 2019). Studies by Alaska Department of Fish and Game (ADF&G) Subsistence Division indicate that salmon contribute up to 65% of the total amount, by weight, of the wild resources harvested annually in Kuskokwim Area communities (Lipka et al. 2019). The Kuskokwim River subsistence salmon fishery is co-managed by ADF&G and U.S. Fish and Wildlife Service (USFWS) within the boundaries of the YDNWR, along with stakeholder input through consultations with the Kuskokwim River Intertribal Fish Commission (KRITFC) and the Kuskokwim River Salmon Management Working Group.

### Chinook Salmon Declines

The In-season Subsistence Harvest Monitoring Project collects detailed quantitative subsistence harvest and age-sex-length (ASL) information in the Bethel area to quantify subsistence harvest effort and catch composition during the Chinook salmon, chum salmon, and sockeye salmon seasons in partnership with ADF&G. Subsistence harvest information has been collected through weekly visits to surrounding Bethel-area fish camps

and opportunistic encounters at the Bethel boat harbor from late-May through mid-July each year. ASL data is obtained through recruitment efforts of fishers in the Bethel area that have voluntarily sampled their Chinook salmon harvest. Continuous contact with subsistence fishers each summer provides a meaningful opportunity for subsistence users to share their perspectives on the annual salmon runs, harvest needs, and personal impacts of management decisions in addition to providing data to in season fishery managers.

Though ONC and ADF&G have been collecting data through In-season Subsistence Harvest Monitoring for over 20 years, in 2016, other partners including ONC, ADF&G, KRITFC, USFWS, and Bering Sea Fishermen's Association (BSFA) joined the effort. From 2016 to 2020, ONC conducted nearly 2,500 interviews with subsistence fishers; these interviews account for more than 62% of the total interviews conducted and have provided the bulk of the data necessary to make in-season harvest predictions (Staton and Coggins 2016, Staton and Coggins 2017, Staton 2018, Decossas 2019, and Decossas 2020).

The data collected from this program are critical to informing in season management decisions that have been made by KRITFC and USFWS since 2016 in response to increasingly weak Chinook salmon runs on the Kuskokwim River (Staton and Coggins 2016). The 2020 in season subsistence harvest estimates, conducted by USFWS with data from ONC and BSFA, on the Kuskokwim River in the boundaries of YDNWR was 35,500 (95% CL: 29,310-42,470) during seven fishing opportunities between June 3 and June 24, 2020 (Decossas 2020). Over that time period, 23,210 Chinook salmon

(95% CL: 19,060-28,050), 6,710 sockeye (5,170-8,380), and 5,590 chum (4,120-7,350) were estimated to have been harvested (Decossas 2020). The 2020 salmon harvest was the smallest observed harvest since the beginning of the more collaborative program in 2016. The 2020 harvest was a much smaller harvest than 2019, where the Chinook salmon harvest was almost 50% greater than the 2020 harvest, while chum and sockeye salmon harvests were about 40% greater than 2020 (Decossas 2020). This reduction in harvest is likely a result of a late, weak run in 2020, especially given that there were seven harvest opportunities in 2020, compared to the six harvest openers in 2019 (Decossas 2020). It is also important to note that in 2019, the Chinook total run estimate was 226,987 (182,811-281,839), which was much higher than in the previous ten years (Larson 2020).

As Chinook salmon are highly desired and one of the largest fisheries in Alaska, it is important to collect quantitative data to properly manage this species. Collection of ASL data by ADF&G and ONC helps produce an annual composition estimate of the lower Kuskokwim subsistence Chinook salmon harvest (Liller and Froning 2016). ASL data remain a core component to inform management decisions and develop brood tables and spawner-recruit analyses for Chinook salmon populations (Liller and Froning 2016). Looking at ASL averages for the past two decades, from 2001 to 2020, the majority of Chinook from the Kuskokwim River subsistence salmon harvest were age 5 (41%) and 6 (36%), 33% female, and an average length of 28.7 inches (728 mm). When looking at 2001-2010 and 2011-2020 separately, the data tells a different story. From 2001-2010 on average, the

majority of Chinook sampled from subsistence harvest on the Kuskokwim were age 5 (40%) and age 6 (48%), 38% female, and an average length of 30.3 inches (771 mm). On average, from 2011-2020, the majority of Chinook sampled from subsistence harvest on the Kuskokwim were age 4 (31%) and age 5 (41%), 28% female, and an average length of 26.9 inches (684 mm). These differences in the ASL samples collected from Chinook harvested for subsistence on the Kuskokwim between the two decades can be attributed, in part, to a shift in gear type allowed to be used by subsistence fishers to harvest Chinook. During the unrestricted years 2001-2011, mesh gear  $\geq 8$  inches was allowed to be used to harvest Chinook, and this gear was used to collect 82% of all samples, while mesh gear 6-8 inches and mesh gear  $\leq 6$  inches made up 11% and 7%, respectively. Larger mesh typically correlates with catching larger fish, as is demonstrated by the average longer length of Chinook from 2001-2010 (30.3 inches or 771 mm). In the past decade, restrictions have been placed on the type of gear allowed to harvest Chinook for subsistence, including requiring smaller maximum mesh sizes, which corresponds to smaller fish harvested, demonstrated by the average length of Chinook sampled from 2011-2020 (26.9 inches or 684 mm). Other factors that may impact ASL data on the Kuskokwim include Chinook salmon harvested for subsistence, including declines in the size of returning adult salmon, shifting population age structure, and changing growth rates (Oke et al. 2020). It is critical that ONC and ADF&G continue collecting this ASL data to inform management decisions, perform analyses, and maintain a record of changes over time.

### Post-season Harvest Information

The Post-season Subsistence Harvest Monitoring Project is a collaborative effort between ADF&G and ONC, who have partnered on this project for over 20 years. This project obtains reliable quantitative estimates of subsistence salmon (all species) and, more recently, whitefish harvests among the majority of households in communities located along the Kuskokwim River through harvest surveys. These surveys are conducted in person, over the phone, or by mail-in forms in the fall after the salmon fishing season has ended. ONC specifically conducts the surveys in Bethel.

Looking at the past three decades, the average harvest estimates of the salmon species harvested on the Kuskokwim River (excluding pink salmon, since they are not typically harvested to the same extent as the other species) show a shift in the data, with major decreases in harvest occurring for Chinook, chum, and coho salmon. These harvest data were collected by ADF&G and ONC as a part of the Post-season Subsistence Harvest Monitoring Project.

From 1990 to 1999, the estimated average subsistence Chinook salmon harvest was 93,253 fish, from 2000 to 2009, the estimated average harvest was 87,592 Chinook, and from 2010 to 2018, the estimated average Chinook salmon harvest was 36,917 fish. The steady decrease in Chinook harvest can be attributed to smaller run sizes and increased fishing restrictions (McDevitt et al. 2020). Chum salmon harvests have followed a similar trend to Chinook; from 1990 to 1999, the estimated average harvest was close to 83,000, from 2000-2009 the estimated average harvest was 65,369 chum salmon, and from 2010-2018 the estimate was



Jaden Andrew of Nunapitchuk, ONC Fisheries Technician in 2021, holding a Chinook salmon caught by the ADF&G Bethel Test Fishery.  
ALASKA DEPARTMENT OF FISH & GAME

55,715 (McDevitt et al. 2020). Chum salmon run concurrently with Chinook salmon, so any increased fishing restrictions and gear restrictions for Chinook salmon may have impacted chum harvest (McDevitt et al. 2020, Runfola and Koster 2019).

Unlike Chinook and chum salmon, sockeye harvest numbers have remained much more stable. From 1990-1999, the estimated annual harvest average for sockeye was 44,402, from 2000-2009 the annual average was estimated to be 45,139 sockeye salmon, and from 2010-2018 the estimated average harvest was 46,739 (McDevitt et al. 2020). Coho salmon are

generally harvested at lower rates than other salmon on the Kuskokwim River; the estimated average annual harvest from 1990-1999 was over 40,700, from 2000-2009 was over 39,800, and was 31,800 coho salmon from 2010-2018 (McDevitt et al. 2020). Declines in coho harvest may be due to below-average coho run sizes or lower fishing effort, but coho salmon enter the Kuskokwim river later than the other salmon species, so regulations in place for Chinook harvest generally do not impact coho harvests. Since 2014, some Kuskokwim River fishers have indicated a desire to target more coho salmon to supplement their lower harvests of other salmon species (McDevitt et al. 2020, Runfola and Koster 2019).

### Why Continued Monitoring is Important

Over the years, both the In-season and Post-season Harvest Monitoring Projects have been a crucial component in informing federal subsistence fisheries management on the Kuskokwim River. These collaborative projects provide accurate and critical information on subsistence salmon harvest. Without these projects, it would be nearly impossible to make accurate estimates of salmon harvest on the Kuskokwim River. Declines in salmon harvest can greatly impact local Kuskokwim communities, since subsistence harvest of salmon plays a vital role in the way of life for many residents of the region. In addition, many of these communities are rural and not accessible by road, so food insecurity can become a very real threat without reliable subsistence harvests of salmon and other foods. ONC plans to continue these in season and post-season harvest surveys in collaboration with ADF&G and other partners to continue providing this critical data.

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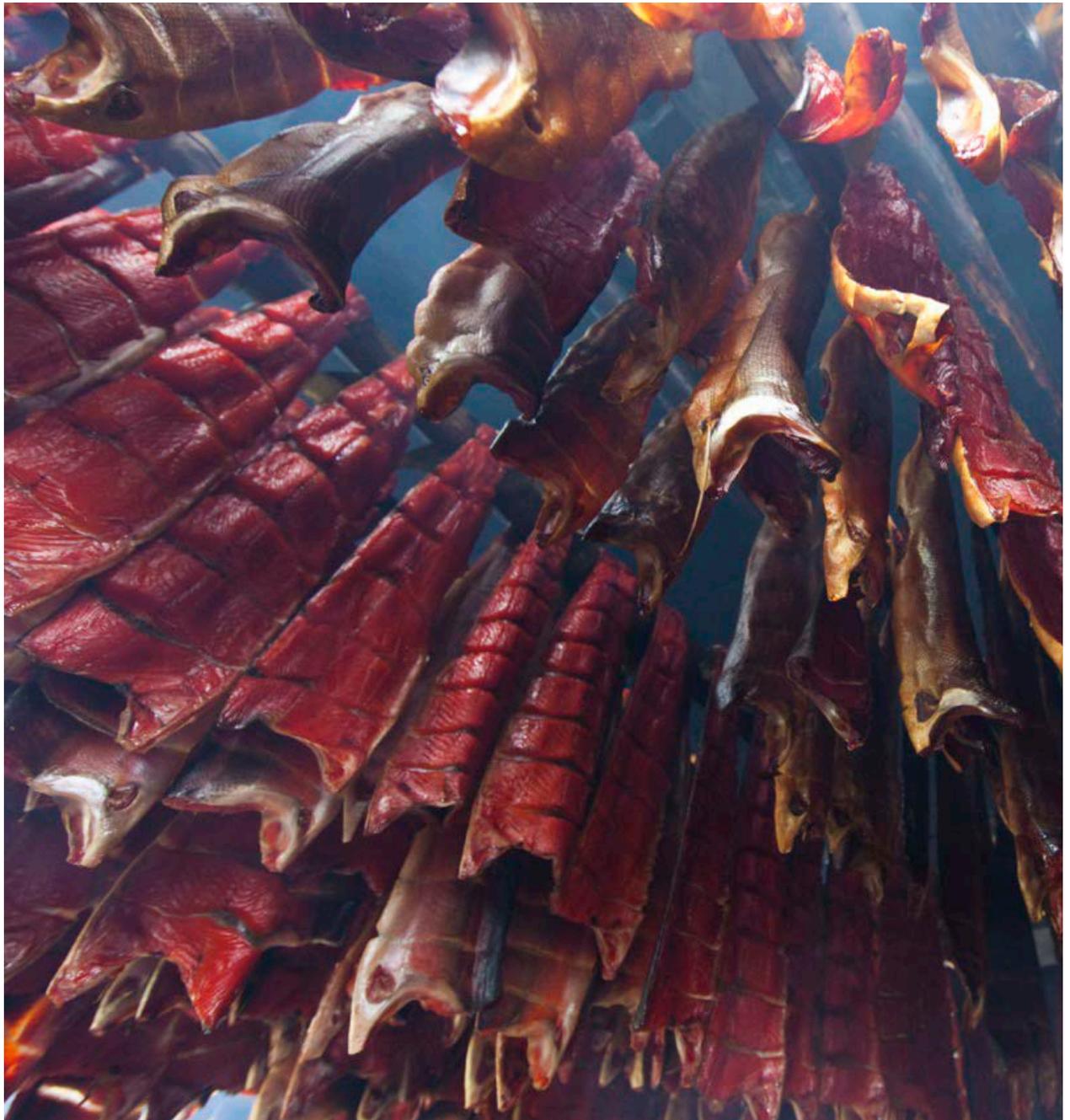
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Salmon curing in a smokehouse.  
NPS PHOTO



# The Harvest and Use of Wild Resources by Communities Within or Near Northern Alaska Parklands

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Customary and traditional harvests of wild resources provide for the nutritional, economic, spiritual, and cultural well-being of communities throughout Alaska. The National Park Service has the authority and responsibility to manage these uses on parklands. Comprehensive surveys reveal harvest and use patterns, providing information to maintain these critical resources and manage for the continuation of subsistence required under ANILCA.

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Various non-salmon fishes also play a large role in subsistence harvests in rural Alaska.

At Noorvik, northern pike make up a large portion of the annual harvest.

ALASKA DEPARTMENT OF FISH AND GAME, DIVISION OF SUBSISTENCE

Customary and traditional harvests of wild resources provide for the nutritional, economic, spiritual, and cultural well-being of communities throughout Alaska (Wolfe et al. 2010, Wolfe and Walker 1987). Extended family groups often work cooperatively to harvest and process subsistence resources and then share those resources widely within and between communities (Brown et al. 2017, BurnSilver et al. 2016, Fall 2016). In Alaska, subsistence practices are a critical part of rural community economies, stemming from a long history of Indigenous practices that have evolved over time. The importance of subsistence is recognized in both state and federal law, where it is given priority over other consumptive uses. Documenting harvests, local knowledge about resources, subsistence use areas, and customary and traditional practices provides critical information for resource management agencies and for communities when self-advocating in state and federal regulatory processes. Consistently collecting this information over time allows for analyses of changes to resources and their use and for management to adapt to those changes.

In Alaska, a significant amount of subsistence activity occurs on National Park Service (NPS)-managed lands. As a federal land management agency, the NPS was granted the authority and

responsibility to manage protected lands in ten national parks, preserves, and monuments throughout Alaska after the passage of the Alaska National Interest Lands Conservation Act (ANILCA) in 1980. ANILCA defined a significantly different approach to resource management compared to how NPS lands were managed in the rest of the United States outside of Alaska: access to new parklands in Alaska was more liberal than to parklands outside of Alaska and subsistence practices were generally allowed to continue within the borders. However, the creation of these new parklands was not without impact to subsistence users. In some regions, people were displaced from parks and new regulations changed the way people used the land and resources therein (Trainor et al. 2020).

#### Comprehensive Subsistence Harvest Data

Providing for subsistence uses requires understanding both the human history within NPS-managed lands as well as historical and contemporary patterns of resource use. To facilitate the protection of subsistence uses on parklands, the NPS supports research to estimate the annual harvests and uses of wild fish, game, and plant resources in communities that have long histories of subsistence use in or near NPS-managed lands. For over 40 years, the Alaska Department of Fish & Game (ADF&G)



A humpback whitefish harvested from waters off Cape Krusenstern National Monument.  
NPS/CAROL ANN WOODY

Division of Subsistence has partnered with Alaska's communities to scientifically gather, quantify, evaluate, and report information about customary and traditional uses of Alaska's fish, wildlife, and vegetative resources (AS 16.05.094). The Division of Subsistence works cooperatively with federal agencies, including the NPS, to ensure resource managers have quality information about subsistence uses.

The Division of Subsistence applies several quantitative and qualitative social science research methods to fulfill its mission. These methods commonly include household surveys and recorded interviews with rural residents. Standardized surveys quantify the fish, wildlife, and plant resources harvested and used by community members as well as collect demographic, economic, food security, participation, and harvest assessment data. The survey also includes space for respondents to provide comments concerns relevant to resource management. Standardized harvest data are entered into the online Community Subsistence Information System (CSIS) that allows public access to community-level data for all study years, all resources, and all communities where surveys have been conducted. It also allows for the comparison of data across communities and over time. Full technical reports are also available online for most of these data.

Comprehensive studies also include an ethnographic component where researchers conduct in-depth interviews with local experts to provide context for harvest data. This context may include information about harvest and processing techniques, changes in hunting practices or areas over time, and other socio-ecological aspects of subsistence, such as climate and landscape change and resource health.

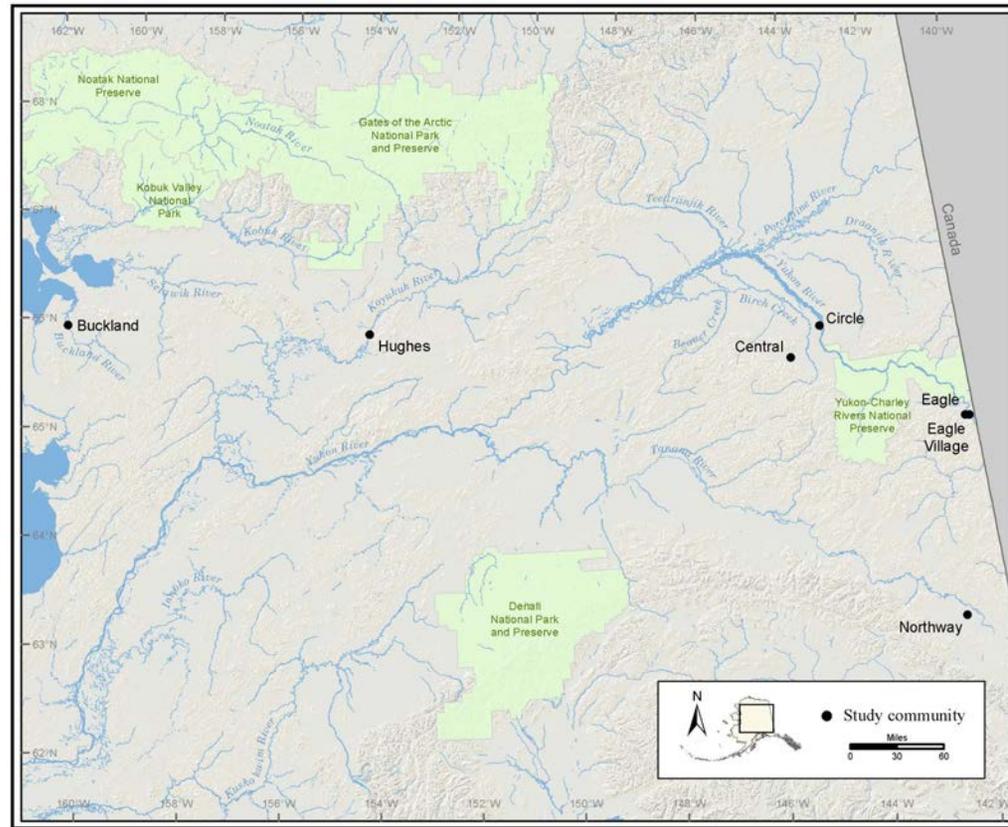
To date, comprehensive subsistence surveys have been completed in over 240 communities across the state, resulting in a tremendous dataset of subsistence harvest and use information accessible to community residents, management agencies, and nongovernmental organizations. Overall, rural Alaska residents harvest an average of 276 pounds of wild foods per person each year compared to just 19 pounds per person by urban Alaska residents (ADF&G 2019). In some areas of the state, harvests exceed 400 pounds per person annually. In rural Alaska, 60% of households harvest wild game and 86% of households use wild game. For fish resources these percentages are even greater: 83% of households harvest fish and 95% use fish. Differences between percentages of households harvesting and using resources are attributed to the sharing of wild foods between harvesting households and others. The combination of the quantitative and qualitative methods in these studies provides a robust foundation for describing contemporary harvests, changes to harvest over time, and local observations of climate change, described in more detail below.

### **Contemporary Subsistence Harvests on or Near Parklands**

The Division of Subsistence and the NPS have a long history of collaborating with rural communities to document subsistence harvest and uses in and near all NPS parks and preserves that are open to subsistence hunting and fishing. Recently, between 2014 and 2018, the division conducted comprehensive surveys in seven communities across northern Alaska that have long histories of subsistence use in or near NPS-managed land (Figure 1, Table 1). These include Eagle, Eagle Village, Circle, Central

(Trainor et al. 2020), and Northway (Godduhn and Kostick 2016) in the eastern Interior region of Alaska; Hughes (Wilson and Kostick 2016) in the central Interior; and Buckland (Mikow and Cunningham 2020) in Northwest Alaska. Together, the communities of eastern Interior, central Interior, and Northwest Alaska represent a large regional band of northern Alaska that share many similarities in their subsistence practices but also important differences that have shaped these places over time. Eastern and central Alaska have been primarily occupied by people of Athabascan descent who have long accessed boreal resources of moose and caribou alongside riverine salmon resources. A broad collection of additional resources including birds, non-salmon fish, small land mammals, and plants complete their annual subsistence cycle. Buckland residents are predominately Iñupiaq, and like other small, predominately Alaska Native communities in rural Alaska, remain substantially dependent on their annual harvests of fish, land mammals, migratory waterfowl, and vegetation, but with the important addition of marine mammals (Magdanz et al. 2011). This paper considers findings for these northern communities.

Multiple factors shape community subsistence practices and harvest productivity. For example, the percent of the population that is Alaska Native, distance from roads and urban centers, average income, local resource abundance and health, and regulations can all play a role in the composition of a community's total subsistence harvest in any given year (Wolfe and Walker 1987). Subsistence harvests in the seven study communities reflect a diversity of geographic and demographic conditions. For example, Buckland is a large, primarily



**Figure 1.** Communities where ADF&G has conducted comprehensive subsistence surveys near NPS-managed land since 2014.

**Table 1.** Summary information for communities participating in comprehensive subsistence studies.

Community	Study Year	Population	% Alaska Native	Total Subsistence Harvest (pounds)	Per Capita Harvest (pounds)	Local NPS Unit
Buckland	2018	588	96%	325,037	553.2	Bering Land Bridge
Circle	2017	82	82%	30,593	374.9	Yukon-Charley Rivers
Central	2017	79	4%	9,288	117.3	Yukon-Charley Rivers
Eagle	2017	161	15%	110,932	691.1	Yukon-Charley Rivers
Eagle Village	2017	24	100%	7,910	336.1	Yukon-Charley Rivers
Hughes	2014	90	100%	32,448	359.6	Gates of the Arctic
Northway	2014	194	88%	60,791	313.7	Denali

Source: ADF&G Division of Subsistence household surveys, 2014, 2017, and 2018.

Alaska Native community located near the coast in Northwest Alaska while, in contrast, Central is a smaller, predominately non-Native community located on the road system in Interior Alaska. Table 1 provides summary data for subsistence harvests by community. Total subsistence harvests ranged from 7,910 pounds (Eagle Village) to 325,037 pounds (Buckland). Because large communities tend to harvest larger quantities of wild resources, considering total community harvests by person (per capita) allows for comparison between communities while controlling for community size. Per capita harvests ranged from 117 pounds (Central) to 691 pounds (Eagle).

Figure 2 shows the composition of community subsistence harvests by resource category. Each community harvested a variety of resources; however, the compositions of the harvests by weight typically reflect local resource availability. Communities located directly along the Yukon River in Interior Alaska harvest large amounts of salmon that make up most of their total subsistence harvest. Non-salmon fish tend to play a more prominent role in communities such as Northway that do not have access to as much salmon. Large land mammals are important in many communities, but moose and caribou make up greater proportions of total harvest in Buckland, Central, and Hughes. Harvest of marine mammals was unique to Buckland, the only coastal community represented.

**Changes to Subsistence Harvests Over Time**

Comprehensive subsistence harvest data from multiple time periods can highlight changes to or consistency of subsistence practices and harvests over time. Earlier comprehensive subsistence harvest datasets exist for three of

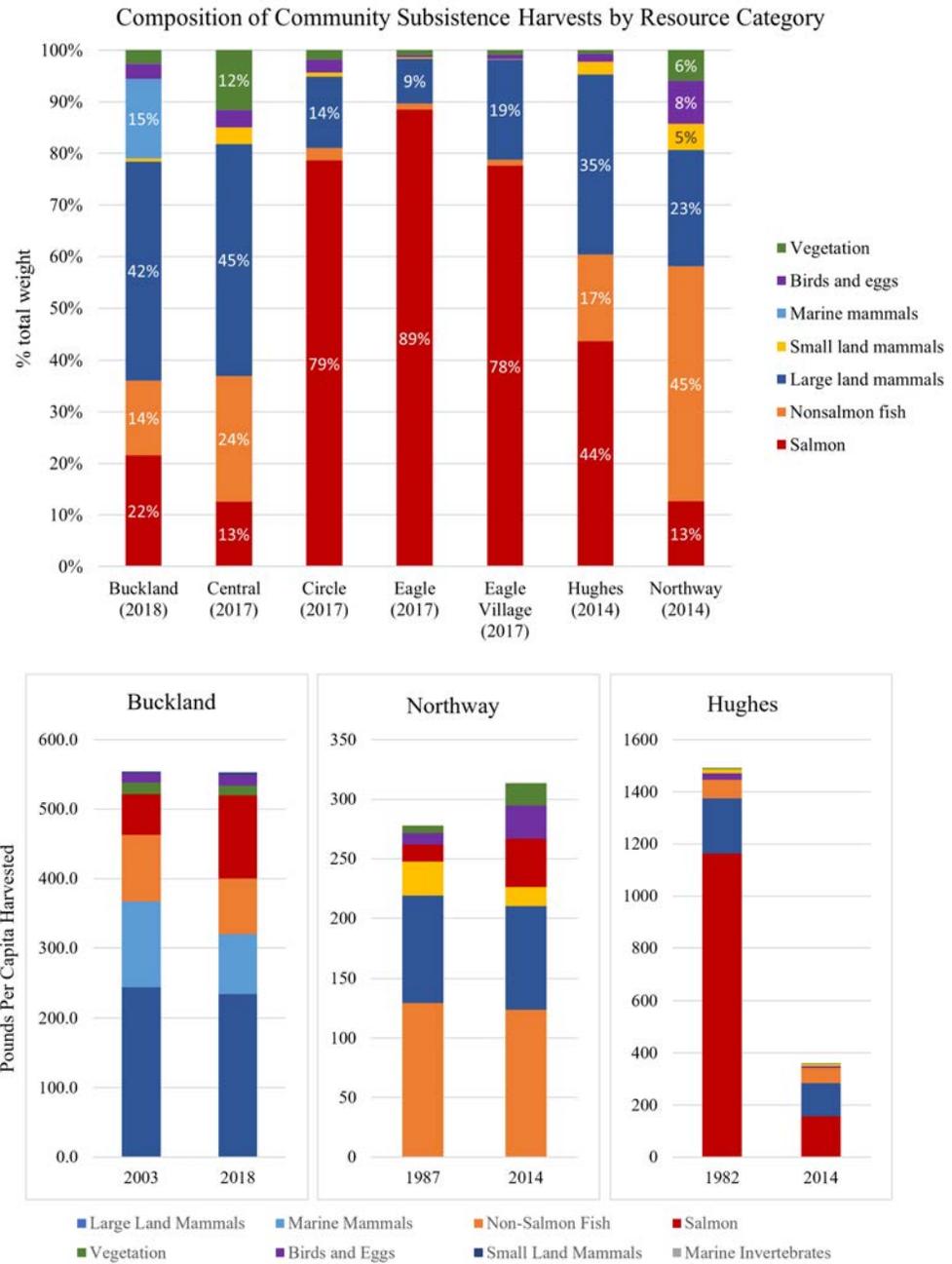


Figure 2. Composition of community subsistence harvests by resource category, 2014-2018.

these communities: Buckland (2003), Northway (1987), and Hughes (1982).

In Buckland, a comparison between the two study years shows a relatively high degree of stability in the subsistence harvests. Although Buckland's total estimated harvest in 2003 was 226,074 pounds, which is less than the estimated 325,037 pounds harvested in 2018, this change can be attributed to an increase in Buckland's population between the two years. Per capita harvest amounts remained nearly identical: Buckland residents harvested 554 pounds per capita in 2003 and 553 pounds in 2018. The composition of harvest between the two years was also relatively similar. The only notable differences are that relatively more salmon and fewer marine mammals were harvested in the latter year—a change that can be explored further through qualitative analysis.

A comparison between the two study years for Hughes tells a very different story, however. In 1982, the community harvested 141,689 pounds of wild food, or about 1,492 pounds per person. In 2014, despite the population remaining relatively stable, the community harvested only 32,448 pounds of wild food, or about 360 pounds per person. However, perhaps the most striking change is in the composition of the total subsistence harvest. In 1982, the largest contributor to the total harvest was salmon; in 2014, residents harvested a greater proportion of large land mammals and non-salmon fish species. With over 30 years between the study periods, these estimates may reflect major changes in the community, such as a decrease in the number of sled dogs and salmon needed to feed those dogs. But the changes may also be attributed to other factors, such as changes in resource abundance. For

example, in 2014, hunters commented that they had to travel farther than they used to to harvest moose. The long travel comes at an associated increase in cost, about which many respondents commented, especially concerning the rise in fuel prices.

Finally, in Northway, total harvest levels decreased as the human population also decreased. In 1987, Northway residents harvested 90,090 pounds of wild resources, or 278 pounds per person. In 2014, residents harvested a total of 60,791 pounds or nearly 314 pounds per person. Together, land mammals and non-salmon fish provide the foundation of the food supply in Northway. Although the total harvests of the non-salmon fish and large land mammals were overall much smaller in 2014 than in 1987, the data indicate that per capita harvests of these resource categories were similar. Northway residents harvested 129 pounds per person of non-salmon fish in 1987 and 124 pounds per person in 2014. The per capita large land mammal harvest was 90 pounds in 1987 and 86 pounds in 2014. In contrast, higher harvests of salmon, birds and eggs, and vegetation in 2014, divided among a smaller number of people, result in slightly higher per capita harvests compared to 1987.

### **Local Observations of Climate Change and Impacts to Subsistence**

As a result of engaging in subsistence practices over generations, residents of communities across the north have developed a deep knowledge base of the land and resources and thus have observed changes in their environment for years. Community residents shared their knowledge and observations with researchers through ethnographic interviews.

In Northwest Alaska, Buckland residents noted that ice conditions have changed over the course of their lifetimes, especially sea ice. Successful spring hunting for marine mammals is directly connected to the presence and thickness of sea ice, which provides a platform for hunting and butchering seals and walrus. When the ice recedes more quickly, hunting windows for these species narrow. Receding ice may require hunters to travel long distances in pursuit of marine mammal resources. Several respondents also noted that ice break-up is now earlier than in the past, which can make travel on rivers and lakes treacherous in the spring months. Key respondents also shared that the fall months are warmer than in the past, delaying freeze-up of local waterways and resulting in less snow cover in the late fall and early winter months. Open waterways and limited snow cover can affect subsistence activities by making travel by snowmachine difficult or impossible.

A number of long-term environmental changes have been occurring in the upper Koyukuk River basin near the community of Hughes. Warmer seasonal temperatures accelerate spring break-up and delay fall freeze-up of the Koyukuk River, a principal travel corridor for area residents. Noticeably decreased snowfall inhibits travel on the numerous winter trails during winter and spring. The reduced snowfall creates dry spring conditions, lengthening the fire season by at least a month. Interior Alaska residents have noticed more frequent and severe fires during the summer. The warmer annual temperature has also led to thawing permafrost, draining lakes, and diminishing or eroding waterways (Beck et al. 2011). Lastly, brushy vegetation has spread in many areas and is slowly creeping

northward. The combination of these factors significantly impedes travel, thereby affecting residents' ability to access key harvest sites and culturally significant areas and to travel to other communities (Wolken et al. 2011).

In eastern Interior Alaska along the Yukon River, Circle, Central, and Eagle residents expressed concerns about declining populations of salmon, a keystone species for these communities, and changing environmental conditions. Residents noted that spring and fall seasons are warmer and that temperatures are not getting as cold in winter, potentially leading to thawing permafrost and drying lakes and waterways. These changes affect their ability to access subsistence areas and their ability to process and store subsistence foods.

Finally, in eastern Alaska along the Tanana River, Northway fishers described the incursion of muddy glacial water into previously clearwater lakes and streams over time. The Nabesna and Chisana rivers are glacial in origin and "muddy" with fine glacial silt. The Black Hills, about 20 miles south of Northway, feed clear (non-glacial) water to the plethora of lakes and creeks on the flats between the lower Nabesna and Chisana rivers. However, beginning in the 1960s and 1970s, the Chisana River has flooded fish, muskrat, waterfowl, and moose habitat with silty water, turning the clear creeks into silty sloughs over a decades-long process. Northway residents make connections between sedimentation and decreased whitefish runs, changes in fishing patterns, and changes to the distribution of non-fish species (especially muskrats and ducks) in the area. This change has impacted residents' access to multiple resources and ultimately caused the loss of a traditional fishing site at K'ehthhiign (lake outlet; Tyone and

Kari 1996), locally referred to as Fish Camp. The flooding is likely related to thawing permafrost that results in a decrease in the volume of soil and water filling those areas (Osterkamp et al. 2009).

### Summary

The customary and traditional harvests of wild resources continue to make major contributions to the well-being of many rural Alaska communities. Comprehensive subsistence surveys contain a wealth of information about this priority use of Alaska's wild resources; the continued documentation of these uses will only increase in importance in light of climate change and declines in the abundance of certain keystone species like salmon. These data provide opportunities for assessment of potential changes in harvest patterns resulting from numerous factors such as environmental changes, fluctuating abundance of resources, increased regulatory restrictions, and changes to the level of participation in subsistence activities. The long-term observations of Alaskans who have used the land and its resources for generations can teach resource managers a great deal about continuing change across a broad landscape over time. On-going collaborative research between agencies and communities is necessary for the sustainable management of resources and protection of subsistence practices into the future.

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Cloudberry.  
NPS/NICOLE BRAEM



# Contributors

**Ahtna, Incorporated** is an Alaska Native Regional Corporation formed under the Alaska Native Claims Settlement Act of 1971 based out of Glennallen, Alaska. The company currently has over 2,100 shareholders, the majority of whom are of Ahtna Athabascan descent, and employs more than 1,100 people worldwide. A premiere Alaskan-owned business, Ahtna, Incorporated is guided by its vision statement: *Our Culture Unites Us; Our Land Sustains Us; Our People are Prosperous.*

**Chris Allan** is the National Park Service historian for Gates of the Arctic National Park and Preserve and Yukon-Charley Rivers National Preserve. He is also a regular contributor to *Alaska History*, the journal of the Alaska Historical Society.

**Nicole (Nikki) Braem** has been a cultural anthropologist at Bering Land Bridge National Preserve based in Nome, Alaska since 2017. Her research interests include Arctic subsistence practices and ongoing climate change adaptations. Prior to onboarding with NPS, she worked for the Alaska Department of Fish and Game, Division of Subsistence for nearly a decade working on design and implementation of community-based subsistence research projects in Northwest Alaska. She earned an M.A. in Northern Studies from the University of Alaska.

**Caroline Brown** is the statewide research director for the Alaska Department of Fish & Game Division of Subsistence. During her 20 years with the division, she spent 15 as the lead subsistence resource specialist for Interior Alaska and three years as the northern region program manager before taking on her current role. She serves as the alternate U.S. co-chair of the Yukon River Salmon Panel. Ms. Brown has worked on several traditional knowledge projects along the Yukon, focusing on the subsistence and use of non-salmon fish species and investigating the socio-economic effects of the 2009 salmon disaster on the Yukon River that paid special attention to the role of an exchange continuum (sharing, barter, and customary trade) in Yukon River villages. Ms. Brown completed an M.A. and her Ph.D. candidacy in Anthropology from the University of Chicago.

**Peter Christian** began his National Park Service career as a seasonal ranger in Denali National Park and Preserve in 1994. Peter's ranger career took him to the Western Arctic Parklands (Cape Krusenstern National Monument, Kobuk Valley National Park, Noatak National Preserve, and Bering Land Bridge National Preserve), Gates of the Arctic National Park and Preserve, and Wrangell-St. Elias National Park and Preserve. Peter currently serves as the Regional Public Affairs Officer for the National Park Service Alaska Region.

A basket of seabird eggs.  
NPS/MAIJA LUKIN

**Egan Cornachione** served as Geoscientist-in-the-Parks intern at the National Park Service Alaska office in Anchorage during the summer of 2019. He is currently a Rangeland Management Specialist with the Inyo National Forest in Bishop, California.

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**Shina duVall** is the regional archeologist for the National Park Service Interior Region 11 – Alaska. In this role, she provides leadership, assistance, oversight, and coordination on archeological and cultural resource issues affecting parklands and in collaboration with a wide variety of partners in Alaska. Originally from the Rocky Mountain West, Shina has over 20 years of experience supporting and managing a variety of archeological, cultural resource, and historic preservation projects through her work experience in private, government, higher education, and non-profit sectors.

**Mike Fleagle** is an Interior Alaskan Iñupiaq raised in a subsistence lifestyle in the Tanana River community of Manley Hot Springs. He left Manley for a high school education in Fairbanks, followed by trade school in Anchorage. After working on the North Slope in Prudhoe Bay and the community of Barrow, he relocated to McGrath where he raised his two sons, continuing the subsistence lifestyle and traditions he passed along to them. Mike has been an active participant in local area, regional, and statewide civic opportunities; he served on both his village and regional Alaska Native Claims Settlement Act corporation boards for many years—Bean Ridge Corporation and Doyon, Ltd. He served as Chief of the Native Village of McGrath and was appointed to the Alaska Board of Game by two governors, Governor Knowles and Governor Murkowski. He served as chair of the Board of Game until being appointed to chair the Federal Subsistence Board in which capacity he served for four years. He is the only person to have served as chair of both the state and federal regulatory boards.

**Adrienne Lindholm** began her National Park Service career in 2000 as a backcountry ranger in Denali National Park and Preserve. She worked for Lake Clark National Park and Preserve and the Western Arctic National Parklands in backcountry planning and compliance before moving into her current position coordinating the Wilderness Stewardship program and Wild and Scenic Rivers program for the Alaska Region.

**Danielle Lowery** was born and raised in Bethel, Alaska. She received her bachelor's degree in marine biology at the University of Alaska Southeast and then returned to her hometown to work for her Tribe. She now serves as the fisheries partners biologist for Orutsararmiut Native Council in Bethel.

**Brooke McDavid** worked for the Alaska Department of Fish & Game Division of Subsistence from 2015-2022 as subsistence resource specialist for the Yukon River region where she was a critical team member for several projects examining exchange practice of subsistence resources, including customary trade and social networks of salmon distribution. She also co-authored several technical papers addressing aspects of Yukon River fisheries, including *Local traditional knowledge of the freshwater life stages of Yukon River Chinook and chum salmon in Anvik, Huslia, Allakaket, and Fort Yukon* and *The harvest and use of wild foods by four communities bordering the Yukon-Charley Rivers National Preserve: Central, Circle, Eagle, and Eagle Village, 2016 and 2017*. Ms. McDavid received an M.S. in Natural Resources Management from the University of Alaska Fairbanks in 2015. She participated in the Peace Corps Masters International Program and served three years as a volunteer in the Fiji Islands where she worked with rural, Indigenous communities to do resource management and sustainable development planning.

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**Pat Pourchot** came to Alaska in 1972 with the Department of the Interior to study federal lands for potential inclusion in new national conservation system units, following passage of the Alaska Native Claims Settlement Act. Forty years later, he again found himself working for the Department of the Interior as Special Assistant to the Secretary for Alaska Affairs. He retired from that position in March of 2015. He served in state government including eight years (1985-1992) as a

legislator in the Alaska State House and State Senate, and as Legislative Director and Commissioner of the Department of Natural Resources for Governor Tony Knowles. His non-profit experience has included management positions with Commonwealth North, the Alaska Federation of Natives, the Alaska Conservation Foundation, Audubon Alaska, and Great Land Trust. He holds a B.A. from the University of Wisconsin-Madison and a MPA from Harvard University. He spends much of his spare time chasing rare birds throughout Alaska and North America.

**Joshua Ream** is an interdisciplinarian, trained in both the social and natural sciences. He has a strong interest in the human dimensions of fish and wildlife management, especially in understanding cultural relationships to natural resources, and the ability of local and traditional knowledge to inform conservation. Josh spent nearly twenty years in Alaska where he completed his Ph.D. concurrent with his position as a Subsistence Resource Specialist at the Alaska Department of Fish and Game. He went on to work as a Cultural Anthropologist for the U.S. Fish and Wildlife Service's Office of Subsistence Management, followed by serving as the National Park Service's Alaska Regional Subsistence Program Manager. He now lives in Hawaii and is the project leader for the Oahu and Maui National Wildlife Refuge Complexes. Despite his recent departure from Alaska, he continues to care deeply about subsistence, environmental justice, and Indigenous sovereignty.

**Katie Russell** is a fisheries partner biologist for Orutsararmiut Native Council in Bethel, Alaska. She has multiple years of field experience with Pacific salmon from working on weir projects near Sitka prior to moving to Bethel. She works on in-season subsistence harvest monitoring program and post-season subsistence harvest surveys project in collaboration with the Alaska Department of Fish & Game, produces the in-season harvest estimates in collaboration with Kuskokwim Intertribal Fish Commission, works with youth programs, and supports other projects as needed. Ms. Russell received her B.A. in Environmental Studies from George Mason University in 2020 where she conducted her research on anadromous populations of river herring in the Potomac River.

**Andee Sears** has worked in Alaska parks since 1996. She was a park ranger at Wrangell-St. Elias National Park and Preserve, worked in subsistence at Denali National Park and Preserve, served as an investigator statewide, and currently oversees law enforcement and regulations for the region.



# Alaska Park Science

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240 WEST 5<sup>TH</sup> AVENUE  
ANCHORAGE, ALASKA 99501

[www.nps.gov/subjects/alaskaparkscience/index.htm](http://www.nps.gov/subjects/alaskaparkscience/index.htm)

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