

Alaska

NEWS RELEASE

National Park Service Releases Amended Alaska Sport Hunting and Trapping Regulation to Protect Visitor Safety and Wildlife

Date: June 28, 2024

Contact: Peter Christian, 907-644-3512

ANCHORAGE, Alaska — The National Park Service (NPS) today announced a final rule that amends its 2020 regulation for sport hunting and trapping in Alaska national preserves. The new rule, which applies only to sport hunting, prohibits bear baiting due to significant public safety concerns. The final rule reflects extensive engagement with stakeholders, Alaska Native Tribes and Corporations, local and state leaders, and the public.

In February 2022, the NPS initiated rulemaking to reconsider the 2020 regulation after early engagement with Alaska Native Tribes and Alaska Native Corporations. Later that year, a Federal District judge remanded the 2020 regulation back to NPS to address the court's decision that the 2020 rule violated NPS laws and policies in some respects.

The new rule addresses the court's concerns and is more consistent with NPS obligations to manage for natural processes, protect wildlife and promote visitor safety. NPS accomplished this by focusing the rule to address urgent public safety dangers posed by bear baiting, which had been authorized by the 2020 rule. Bear baiting encourages bears to become conditioned to human-provided food, increasing the likelihood of negative human-bear interactions. The final rule also affirms the federal government's role in wildlife management on Alaska national preserves, consistent with the Alaska National Interest Lands Conservation Act (ANILCA) and does not affect activities by qualified federal subsistence users.

"The amended rule will advance wildlife conservation goals and objectives, including a prohibition on bear baiting in our national preserves, as mandated under the NPS Organic Act of 1916," NPS Alaska Regional Director Sarah Creachbaum said. "We take our responsibilities under ANILCA seriously and the new rule reflects our commitment to providing conscientious service to the American public."

The amended rule Hunting and Trapping in Alaska National Preserves will be available in the Federal Register in the coming days but can be previewed on the NPS website (https://parkplanning.nps.gov/documentsList.cfm?projectID=111863). The final rule will be effective 30 days after publication in the Federal Register.

SRC Completed Action 2.5

Action 2.5: Establish a minimum residency requirement for resident zone communities.

Issue Background

- The SRC commented during the December 1996 meeting that individuals should be required to live in a resident zone community for at least one year before becoming eligible for subsistence uses within the park.
- The SRC prepared a hunting plan recommendation at their November 1997 meeting (see Action 2.5, pages 5-6). The recommendation was made to establish a minimum residency requirement of one year for those people living in a resident zone community.
- The draft hunting plan recommendation was mailed to Regional Advisory Councils, Local Advisory Committees, the Secretary of Interior, and the Governor of Alaska in November 1997.
- In the fall of November 1997, the Aniakchak SRC prepared a draft hunting plan recommendation that would require residents of designated resident zone communities to live in a resident zone community for at least one year before becoming eligible for subsistence uses within the monument. In the fall of 1998 the hunting plan recommendation was approved by the SRC but not forwarded to the Secretary until April 2000. The SRC put a hold on their recommendation until they had the opportunity to consult with other SRCs.
- At the April 1998 meeting a motion was passed to accept the one-year residency requirement. Specifically the SRC agreed to use the existing federal subsistence definition with an amendment of a one-year residency requirement in an NPS resident zone community. This includes a provision allowing a subsistence user to continue to be eligible to hunt in the Park if they move from one NPS resident zone into another as long as they have lived there one year prior to the move.
- On April 13, 1998, Superintendent Jarvis received a phone call from Chairman Vale stating that he is now uncomfortable with the SRC hunting plan recommendation for the one-year residency that includes the amendment to allow other resident zone residents an exception. He felt that with the objection of Robert Marshall and Fred John Jr. and the absence of the other SRC members the motion probably would not

- have passed. Chairman Vale would like to discuss this at the October SRC chair meeting and at the November SRC meeting before action is taken.
- The SRC chairs met in Anchorage in October of 1998 and discussed this hunting plan recommendation and decided to get comments back to John Vale for consolidation and action. Although no deadline for comment was agreed upon, each SRC coordinator was polled for comments on this issue. Those SRCs who had comments are summarized below.
- The Denali Commission stated they did not feel the one-year residency was appropriate for Denali National Park resident zones. Although if this hunting plan recommendation is passed, the Denali Commission feels it should be specific to Wrangell-St. Elias National Park and not be applicable to other park areas unless supported by their respective SRCs (see Action 2.5, page 7).
- In May 1999 the Gates of the Arctic SRC re-evaluated their 1987 hunting plan recommendation on eligibility for resident zones. The Commission shares the concerns of the Wrangell-St. Elias SRC. The Gates SRC feels it is only reasonable to expect a new resident of a designated resident zone community to have also established a pattern of subsistence use. They also agree that a one-year cycle of subsistence activities off park lands would be a minimal period of time in which to do this. They further agree that people who leave a community temporarily for school or work and return, should be excused from these requirements (see GAAR recommendation #2, Action 2.5, pages 8-9).
- A letter dated June 1999, from the Regional Director to Chairman Vale indicated that the NPS was awaiting a response from the Governor on the hunting plan recommendation before developing a response to the SRC (see Action 2.5, page 10).
- Governor Knowles responded to the SRC hunting plan recommendation on July 28, 1999, indicating that he shared their concern but did not agree with the recommendation (see Action 2.5, pages 11-12). When the State was implementing ANILCA (pre-1990) they believed a durational residency requirement was unnecessary and risked becoming arbitrary and unfair. Under the new Federal Subsistence Regulations a person is required to live in Alaska for 12 months before being considered a "resident" for purposes of ANILCA's subsistence priority. This is consistent with the state's requirement of 12 consecutive months Alaska residency before an individual may harvest fish and wildlife under a state-issued resident license. If properly enforced, the Governor believes the regulation can minimize potential abuses and ensure that only those individuals who legitimately reside and intend to remain in a resident zone community are eligible for subsistence uses of the park.

- The SRC Chairs met in Anchorage in October 1999 and discussed the recent changes to the Federal Subsistence Regulations that now require subsistence hunters to have a State resident hunting license, which requires one year of residency in the State. The Chairs felt the regulation did not go far enough in protecting subsistence rights and decided to once again put the recommendation before their Commissions in the coming year.
- On February 4, 2000, NPS Associate Regional Director Judy Gottlieb responded to the recommendations made by the Chairs of the SRCs at a workshop held in October 1999. In regard to the one-year residency requirement, Gottlieb said it would be beneficial to get recommendations from each of the SRCs on this issue and perhaps from the Regional Advisory Councils as well before NPS replies to the Wrangell-St. Elias SRC hunting plan recommendation. If all SRCs support this proposal then NPS will look at the issue for all parks and monuments in the state. All SRC recommendations will be considered in NPS' response to the Wrangell-St. Elias SRC hunting plan recommendation.
- In a memo dated February 14, 2000, to Associate Regional Director Gottlieb, the Denali SRC revised their position on the one-year residency requirement. The Denali SRC passed a motion to request a residency requirement with the same exceptions (for military service, college attendance, etc.) that the Wrangell-St. Elias SRC proposed, but with a three-year stay required for eligibility instead of one year. The reason for the longer requirement is to reduce hunting pressure on the local area and to preserve resources for longtime residents who have traditionally depended upon them. The SRC believes it takes more than just one year for individuals to sufficiently learn the area and the traditional use practices for the community.
- Following discussions at the November 3-4, 2000 meeting of the SRC in Yakutat, the SRC wrote a letter to Alaska Regional Director Arnberger requesting that staff initiate the regulatory process to require a minimum residency requirement of one year for people living in resident zones. The SRC asked to have an exemption written for people who have left the community for education or military service (letter is in Chapter 1; see Action 1.4, pages 2-3).
- At its February 20-21, 2001 meeting in Gulkana, the SRC voted to draft a letter to support the one-year residency requirement. Although the SRC had previously sent a letter to Alaska Regional Director Arnberger and had their comments on record regarding the issue they felt it was appropriate to reiterate their desire to see the regulation changed.

Current Status

- In January 2003, park and regional office staff briefed Alaska Regional Director Arnberger on the interest of several SRCs in a minimum residency requirement for people living in park resident zones. On behalf of the SRCs, it was requested that the regulatory process to require a minimum residency requirement be initiated.
- On October 8, 2003, Acting Regional Director Marcia Blaszak wrote to SRC Chair Ray Sensmeier and to Denali SRC Chair Florence Collins rejecting the SRCs' hunting plan recommendations for a minimum residency requirement. The letter explained that a legal review of the recommendation by the Solicitor's Office for the Department of the Interior, Alaska Region, had found that a residency requirement would be inconsistent with the intent of Congress as expressed in ANILCA. (For letter and September 30, 2003, memorandum from the Solicitor's Office, see Action 2.5, pages 13-18).

Authority:

36 CFR Part 13.420 Definitions



United States Department of the Interior

ALASKA REGION
NATIONAL PARK SERVICE
240 W 5th Avenue, Rm 114
Anchorage, Alaska 99501



IN REPLY REFER TO

L30 (AKRD-SUBS)

OCT -8 2003

Mr. Ray Sensmeier Wrangell-St. Elias Subistence Resource Commission P.O. Box 439 Copper Center, Alaska 99573

Dear Chairperson Sensmeier:

I am responding to your letter from April 1999 on behalf of the Secretary of Interior. My apologies for the delay in the response. Your letter requesting a residency requirement for individuals moving into Wrangell-St. Elias National Park resident zone communities (Hunting Plan Recommendation 99-01) is a complicated issue. The Solicitor's Office within the Department of Interior reviewed and analyzed all the issues involved with this hunting plan recommendation. Other Subsistence Resource Commissions asked for similar requirements as well. For example, Denali made a recommendation in 2002 similar to your SRC. I wanted to be sure that our responses were consistent and carefully considered.

Attached is the opinion, which states that a residency requirement would be inconsistent with the intent of Congress as expressed in ANILCA. This is similar to prior decisions by the Department denying requests for a durational residency. If the amount of subsistence hunting by qualified local rural users ever reaches an unsustainable level, the SRCs certainly could consider proposing other limitations that are authorized specifically by ANILCA Section 804. We hope we do not ever reach that situation.

There will be opportunity to discuss this opinion at the workshop on October 21. Please accept my appreciation for your many years of service and dedication to the Wrangell-St. Elias Subsistence Resource Commission.

Sincerely,

Marcia Blaszak /

Acting Regional Director

Attachment

cc: Superintendent, Wrangell-St. Elias NPP

Subsistence Manager, Wrangell-St. Elias NPP

Special Assistant to the Secretary

Subsistence Resource Commission Chairs



United States Department of the Interior

OFFICE OF THE SOLICITOR Alaska Region 4230 University Drive, Suite 300 Anchorage, Alaska 99508-4626 Tel: (907)271-4131 Fax: (907)271-4143

September 30, 2003

MEMORANDUM

TO: Acting Regional Director, Alaska Region

National Park Service

FROM: Regional Solicitor, Alaska Region

SUBJECT: Durational residency proposals for establishing local rural residents' eligibility to

subsistence hunt in National Parks and Park Monuments in Alaska

This is in response your request that this office provide a legal review of recommendations submitted by two National Park Subsistence Resource Commissions (SRCs) pursuant to § 808 of the Alaska National Interest Lands Conservation Act (ANILCA). 16 U.S.C. § 3118. Section 808 of ANILCA required the Secretary to establish SRCs consisting of local subsistence users for each national park or park monument (park) in Alaska that permits subsistence hunting within the park unit. 16 U.S.C. §3118(a). The SRC for each park may make such recommendations to the Secretary as it deems necessary related to that park's subsistence hunting program. Id. The specific SRC recommendations you have asked us to review would impose durational residency requirements of one year and three years in length upon new local rural residents of park resident zone communities surrounding Wrangell-St. Elias and Denali National Parks, respectively, before they could qualify to subsistence hunt in the nearby park.

Having reviewed the residency recommendations submitted by the SRCs, as well as ANILCA and its legislative history, the National Park Service's (NPS) regulations, and prior opinions of the Solicitor's Office, we are convinced that the SRC proposals in this instance are inconsistent with the intent of Congress as expressed in ANILCA. Therefore, we are reaffirming the Department's position, articulated on past occasions when the issue arose, that the imposition of durational residency requirements to limit eligibility for local subsistence hunting privileges in national parks and park monuments is impermissible under ANILCA. Consequently, we recommend that the two SRCs be informed of our conclusion and that their specific hunting plan recommendations be rejected. Our analysis follows.

SRC Durational Residency Proposals

The Wrangell-St. Elias National Park SRC submitted a subsistence hunting plan recommendation to the Secretary which calls for the establishment of a minimum local residency requirement of one year's duration for individuals moving to local park resident zone communities prior to their being eligible to hunt in the park. The SRC's recommendation contemplated that those individuals who have established eligibility by meeting the one-year residency requirement would retain it if they were temporarily away from their residence because of military service or to attend school. The SRC explained the reason for its recommendation was that it felt there was a problem with individuals moving into the local resident zone communities of Wrangell-St. Elias National Park and establishing instant eligibility for subsistence hunting within the park without intending to reside permanently in the local communities.

As provided in § 808 of ANILCA, the Wrangell-St. Elias SRC transmitted a copy of its proposed durational residency recommendation to the Governor of Alaska. In a letter dated July 28, 1999, the State of Alaska responded to the SRC by opposing the recommendation and asserting that it would be contrary to ANILCA and its legislative history.²

In a similar manner, the Denali National Park SRC recommended to the Secretary that a hunting plan amendment be adopted that would establish a minimum local residency requirement of three years before individuals moving to the Cantwell local resident zone community may gain eligibility to subsistence hunt in Denali National Park. The recommendation also made an exception for individuals temporarily away from the community for military service or to attend school. In explaining its recommendation, the Denali National Park SRC noted that the population of the community of Cantwell has doubled in recent years and has developed more of a transient nature than in the past. As with the Wrangell-St. Elias durational residency proposal, the State of Alaska responded to the Denali National Park SRC's recommendation by opposing the proposal.³

^{&#}x27;The NPS' park regulations set out requirements for local resident zone communities and qualifications for local rural residents to engage in subsistence uses in each national park and park monument in Alaska where subsistence uses are permitted. See 36 C.F.R. Subpart 13B (36 C.F.R. §§ 13.40-13.51). The individual local communities which qualify as local subsistence resident zones for each park are also set out in regulation. See 36 C.F.R. Subpart 13C (§§13.60-13.74). For Wrangell-St. Elias National Park, there are 23 local resident zone communities listed in the NPS' regulations, including Chisana, Chistochina, Chitina, Copper Center, Dot Lake, Gakona, Gakona Junction, Glennallen, Gulkana, Healy Lake, Kenny Lake, Lower Tonsina, McCarthy, Mentasta Lake, Nabesna, Northway/Northway Village/Northway Junction, Slana, Tanacross, Tazlina, Tetlin, Tok, Tonsina and Yakutat. 36 C.F.R. § 13.73(a). For Denali National Park, the local resident zone communities are Cantwell, Minchumina, Nikolai and Telida. 36 C.F.R. § 13.63(a).

² See Letter to J. Vale, Chair, Wrangell-St. Elias National Park Subsistence Resource Commission, from T. Knowles, Governor of Alaska (July 28, 1999). In its response to the Wrangell-St. Enas SRC's recommendation, the Governor also referenced a 1990 Informal Opinion of the State Attorney General advising the Alaska Department of Fish and Game that durational residency requirements could not be used as a requirement for eligibility to engage in subsistence uses under ANILCA. <u>1d.</u> at 1, <u>siting</u> 1990 Informal Opinion Attorney General 149 (dated March 21, 1990).

³ In a letter to the Denali SRC from the Commissioner of the Alaska Department of Fish and Game dated July 29, 2002, the Commissioner stated that the three-year residency requirement was not

Legal Interpretation of ANILCA

The use of durational residency requirements as a means of determining local rural subsistence eligibility under ANILCA first came up in public comments on the January 19, 1981, proposed interim rule for managing park system units in Alaska. 46 Fed. Reg. 5642 (January 19, 1981). ANILCA had just recently been enacted on December 2, 1980, and it added a total of 13 new and expanded units to the national park system in Alaska. See ANILCA §§ 201 & 202, 16 U.S.C. § 410hh-1 and 431 note. In their comments on the proposed rule governing park management, certain Alaska Native organizations recommended that a one-year durational residency requirement be added as proof of an individual's qualification as a "local rural resident" for subsistence eligibility in the national parks and park monuments established by ANILCA. In the preamble to the final interim rule issued later that same year, the NPS responded that the Alaska Native organizations' "recommendations have intuitive appeal, but also present legal and equitable problems." 46 Fed. Reg. 31836, 31840 (June 17, 1981).

A few years later, the Attorney General of the State of Alaska sought the Department of the Interior's official views on a wide variety of ANILCA subsistence topics. The State's letter raising numerous legal issues was submitted shortly after the Department had made a determination that the State of Alaska's subsistence program was no longer in compliance with the requirements of ANILCA requiring protection of a "rural" subsistence preference. In a letter dated April 4, 1986, the Associate Solicitor of the Division of Conservation and Wildlife, Office of the Solicitor, responded to the questions submitted by the Alaska Attorney General. In response to the State Attorney General's explicit question: "[d]oes ANILCA authorize a durational rural residency requirement in identifying who may engage in subsistence uses," the Associate Solicitor responded definitively "no." In explanation, the Associate Solicitor's letter cited the legislative history of ANILCA and concluded that means other than a durational residency requirement must be utilized to establish a person's permanent residence in a rural area.

The legislative history referred to in the Associate Solicitor's opinion interprets key language of ANILCA providing a subsistence preference for "rural" residents of Alaska. In the Senate Report on ANILCA prepared by the Committee on Energy and Natural Resources, the Committee stated:

necessary because the State had not seen any evidence that an increasing population near Cantwell over the past 20 years had led to increased park hunting effort or success. The letter also referenced the State's earlier letter to the Wrangell-St. Elias SRC and the 1990 Informal Opinion of the State Attorney General. Letter to F. Collins, Chair, Denali National Park Subsistence Resource Commission from F. Rue, Commissioner of the Alaska Department of Fish and Game (July 29, 2002).

Letter to H. Brown, Attorney General of the State of Alaska, from the G. Norton, Department of the Interior, Associate Solicitor for Conservation and Wildlife at 5 (April 4, 1986). A copy of the Associate Solicitor's April 4, 1986, opinion is attached to this memorandum.

Although many residents of such cities such as Ketchikan, Juneau, Anchorage, and Fairbanks harvest renewable resources from the public lands for personal or family consumption, by its very nature a "subsistence use" is something done only by Native and non-Native residents of "rural" Alaska. The Committee adopted an amendment to clarify this point by limiting application of the definition to areas of "rural" Alaska, including communities such as Dillingham, Bethel, Nome, Kotzebue, Barrow, and other Native and non-Native villages scattered throughout the State. However, the Committee does not intend to imply that the rural nature of such communities is a static condition; the direction of the economic development and rural character of such communities may change over time. It should be emphasized that this amendment is not intended to impose a "durational" rural residency requirement in the definition or impede the traditional movement of Alaska residents between the rural areas and the major population centers and vice versa.

S. Rep. No. 413, 96th Cong., 1th Sess. 233 (1979) (emphasis added). With this explanation, Congress made explicit its views and its intent that ANILCA not be construed to impose a rural durational residency requirement for subsistence eligibility. Relying on this express indication of Congressional intent, the Associate Solicitor's opinion concluded that imposition of a durational residency requirement was not authorized by ANILCA. Solicitor's Opinion, note 4 supra, at 5.

The Associate Solicitor's opinion addressed the durational residency question in connection with the subsistence requirement for "rural residency" in § 803 ANILCA, 16 U.S.C. §3113, and did not separately discuss the "local residency" requirement in §§ 201, 202, 203 and 816 of ANILCA which is applicable only to subsistence uses of parks. 16 U.S.C. §§ 410hh, 410hh-1, 410hh-2 & 3126. However, there is no indication that Congress intended any different result as applied to the national parks. As Congressman Udall explained the subsistence residency provisions that were soon to enacted in ANILCA, "the residency component in the subsistence priority, both rural residency and local residency, is not intended to impose a durational residency requirement." 126 Cong. Rec. H 10546, 96th Cong., 2nd Sess. (November 12, 1980) (emphasis added).

Even after the Associate Solicitor's legal opinion in 1986, the Gates of the Arctic National Park SRC in 1987 submitted a hunting plan pursuant to section 808 of ANILCA. One of the Gates of the Arctic SRC's recommendations was a requirement that individuals must live in the local resident zone community for twelve months before becoming eligible to subsistence hunt in the nearby national park. The Department responded to this hunting plan on May 18, 1988. In addressing the twelve month durational residency requirement proposed by the SRC, the Acting Assistant Secretary for Fish and Wildlife and Parks concluded that it could not be implemented because ANILCA does not allow for durational residency requirements for local resident subsistence eligibility under the Act.⁶

Letter to B. Nageak, Chair, Gates of the Arctic National Park Subsistence Resource Commission from S. Reece, Department of the Interior Acting Assistant Secretary for Fish and Wildlife and Parks (May 18, 1988).

Conclusion

Since ANILCA's enactment in 1980, the Department has consistently interpreted the Act as disallowing any durational residency requirements which would prevent new residents of local resident zone communities from participating in subsistence hunting in a nearby park for an extended period of time. We find no grounds for modifying this view now. Consequently, we recommend that written responses be prepared to the Wrangell-St. Elias and Denali National Parks SRCs which explain that the durational residency recommendations they have proposed for their respective parks cannot be implemented as they are inconsistent with ANILCA.⁷ If you wish, the responses could also explain that if the amount of subsistence hunting by qualified local rural residents in a park ever reaches an unsustainable level, the SRCs could consider proposing other limitations on hunting eligibility, such as those which are specifically authorized by § 804 of ANILCA.⁸

Lauri JAgan

Any person who has his/her primary, permanent home within the resident zone as defined by this section, and whenever absent from this primary, permanent home, has the intention of returning to it. Factors demonstrating the location of a person's primary, permanent home may include, but are not limited to, the permanent address indicated on licenses issued by the State of Alaska Department of Fish and Game, driver's license, and tax returns, and the location of registration to vote

36 C.F.R. § 13.42(a)(1). To the extent the SRC recommendations for Denah and Wrangell-St. Elias. National Parks suggest that there may be a problem with people who are not permanent residents of each park's resident zone communities nevertheless obtaining eligibility to participate in subsistence hunting in those parks, the residency claims of such individuals should be investigated and appropriate action taken if the person if found not to be a permanent resident.

See, e.g., 126 Cong. Rec. H 10546, 96th Cong., 2th Sess. (November 12, 1980), which explains that if hunting pressure on wildlife populations in national parks by residents of communities designated as local subsistence resident zones increases to the point that the numbers of local eligible hunters must be reduced, measures may be taken to reduce the numbers of eligible subsistence hunters pursuant to § 804 of ANILCA. 16 U.S.C. § 3114. That section authorizes limiting subsistence use in times of shortage to the local residents most dependent on the resource and those who have the least access to alternative resources.

⁷ This conclusion in no way implies that the existing requirement of permanent residency in a park's local resident zone community should not be enforced. The NPS' regulations have long defined "local rural resident" as:



WRANGELL-ST. ELIAS NATIONAL PARK AND PRESERVE TEAM LEAD FOR RESOURCE STEWARDSHIP AND SCIENCE REPORT

Fall 2024

Benjamin Pister, benjamin pister@nps.gov

Staffing Changes:

Dr. Mark Miller, currently an ecologist with Wrangell St. Elias National Park and Preserve, has accepted a position with Valles Caldera National Preserve, in New Mexico. Dr. Miller has been a huge champion at the park for subsistence issues, and has been highly successful at designing and funding projects to support food security, especially involving salmon. We thank him for his service to Wrangell-St. Elias and the Copper River Basin.

Dr. Miller's position was funded by the Inflation Reduction Act. I intend to refill his position with either an ecologist or fisheries biologist, in order to continue the salmon-focused projects that Dr. Miller has begun.

Nabesna Mine:

The park is in the process of drafting an Engineering Evaluation/Cost Analysis (EE/CA – pronounced "eekah"), which is similar to an Environmental Assessment, to plan a cleanup of toxic mine tailings at the Nabesna Mine. We expect a draft to be available for public comment sometime late winter, most likely after the spring SRC meeting. Almost all alternatives under consideration would include some amount of heavy equipment traffic along the Nabesna Road, and potentially a substantial amount depending on the alternative. While no planning has occurred yet, a winter time operation is plausible. I invite the SRC to advise NPS on specific subsistence activities we should consider when planning this clean up project, especially those involving the Nabesna Road, and to provide those at our spring 2025 meeting. An opportunity for the SRC to comment on the preferred alternative (not yet identified) will occur when the EE/CA is open for public comment in 2025.



United States Department of the Interior

NATIONAL PARK SERVICE

Wrangell-St. Elias National Park & Preserve Mile 106.8 Richardson Hwy. – P.O. Box 439 Copper Center, AK 99573-0439 907 822 5234 Fax 907 822 3281 http://www.nps.gov/wrst



Fall 2024 Wildlife Report

Kyle Cutting, Wildlife Biologist, kyle_cutting@nps.gov

• Mentasta Caribou Herd

- o A total of 189 (90% CI: 148-278) adult caribou were estimated during a survey on June 26 and July 3, 2024, which is the lowest estimate since 2017 (Table 1).
- o From a composition survey conducted on September 3, 2024, the calf to 100 cow ratio was similar to the previous 4 surveys since 2017 (4-year survey average = 21 calves vs. 2024 = 26 calves). The bull to 100 cow ratio was lower in 2024 (i.e., 33 bulls) than previous 4-surveys (average = 74 bulls).
- O Currently, a total of 20 GPS collars exists on individuals captured on the Mentasta herd's range. Eight of these have emigrated west to the Nelchina herd's range.
- o 28 GPS collars will be deployed on both the Mentasta and Chisana herds during October 1-5, 2024, in collaboration with AITRC and ADF&G.
- A competitive science proposal was funded for 2026 to evaluate changes in herd overlap among the Mentasta, Nelchina, and Chisana caribou herds. As these three herds co-occur in time, space, or both within Wrangell-St. Elias, significant concern exists for incidental take and overharvest of the smaller Mentasta and Chisana caribou herds when the larger Nelchina caribou herd is present and being harvested in an easily accessible area. Note the Federal hunt on Nelchina caribou is currently closed, so this actionable science will impact future management decisions. The study will begin in fall 2025 and will conclude in fall 2027.

Table 1. Population parameters for the Mentasta caribou herd.

Year	Estimated Adults (90% CI)	Calf:Cow Ratio	Bull:Cow Ratio
2017	285 (237-385)	20	87
2018	349 (289-475)	22	92
2019	335 (277-459)	28	95
2020	642 (545-833)	-	-
2021	470 (388-629)	12	20
2023	258 (203-374)	-	-
2024	189 (148-278)	26	33

• Chisana Caribou Herd

- O A composition survey was conducted by Yukon Environment on October 14, 2023, and ADF&G on October 24, 2023, in conjunction with Wrangell-St. Elias. Survey results indicate above average calf to 100 cow ratio (3-year average = 25) and bull to 100 cow ratio (3-year average = 37) that are above the goals stated in Chisana management plan of 15 for calf:cow and 35 for bull:cow ratios.
- o Currently twelve GPS collars remain within the herd.
- o A composition survey will be conducted in October 2024.

Moose

- O A moose survey occurred across a 2.5-million-acre landscape within Wrangell-St. Elias including Unit 11 and portions of Unit 12 during fall 2023.
- The previous survey was conducted in fall 2013. The large time between surveys was due in part to lack of snow in some years, as well as flight restrictions due to the covid pandemic.
- O The objectives of this survey were to evaluate spatiotemporal patterns in moose and determine age and gender composition. The estimated population of moose observed in 2023 was at a record low (Table 2), a nearly 40% decline from the previous 2013 survey, and slightly lower than the 2007 and 2010 estimates (Table 2).
- O Changes in the spatial distribution of total moose as determine using a spatial model indicates a sharp decline on the north side of the Wrangell Mountains since 2013. Moose on the west and south side of the Wrangell Mountains have showed less of a population decline.

Table 2. Survey results from four moose population surveys, Unit 11 and 12, Wrangell-St. Elias National Park & Preserve, Alaska.

Year	Population Count (90% CrI)	Calf:100 Cow	Bull:100 Cow
2007	1,650 (1,479-1,820)	19	53
2010	1,533 (1,422-1,670)	17	51
2013	2,199 (1,969-2,451)	18	64
2023	1,330 (1,229-1,442)	8	44

Dall's Sheep

- Sheep surveys were conducted across a 2.5-million-acre landscape on the northern Wrangell Mountains including the Nabesna area, and Mentasta and Nutzotin mountain ranges.
- O A total of 148 individual 10-mile long transects were flown by two aircraft across 6 days for a total of 48 hours of survey time. Sheep groups including age and gender were recorded.
- Results are not ready to be shared at this time, but we will do so during the spring 2025 meeting.

- o In 2025, NPS will resurvey the long-term monitoring area located between the headwaters of the Copper and Nabesna River drainages using an updated distance sampling transect approach, to evaluate recovery in that area with the recent population decline.
- o A competitive science proposal was funded to evaluate factors contributing to the recent sheep decline at Wrangell-St. Elias to inform subsistence-harvest and management decisions. This project will occur across all occupied sheep habitats within the park and preserve starting in summers of 2026 and 2027. One hypothesis frequently posited by stakeholders is that heavy snow in recent years has decimated sheep numbers. This funded project leverages a strong south-to-north snow gradient across Wrangell-St. Elias to ask whether Dall's sheep declines are occurring park-wide, and to identify factors governing sheep abundance in repeat surveys since 2011. The effort will directly inform management decisions in Wrangell-St. Elias and provide valuable inferences for other Alaskan parks with Dall's sheep.





Wrangell-St. Elias National Park & Preserve Mile 106.8 Richardson Hwy., P.O. Box 439 Copper Center, AK 99573-0439 907 822 5234 Fax 907 822 3281 http://www.nps.gov/wrst



Fall 2024 Fisheries Report, SRC Update Dave Sarafin, Fisheries Biologist

Dave_Sarafin@nps.gov, 907-822-7281

SUMMARY OF KEY UPDATES

- Through September 10, the Tanada Creek weir at Batzulnetas has documented passage of 14,508 Sockeye Salmon and 13 Chinook Salmon (preliminary count estimates).
- Similar to recent years, the Copper River salmon run began weak, then increased in strength as the season progressed. Harvest opportunities continued throughout the 2024 season and the Sockeye Salmon sustainable escapement goal should be achieved.
- Miles Lake sonar estimated a season total passage of 946,188 salmon, which is 58% above the management objective of 599,157 salmon (through July 28).
- Assessments by the Alaska Department of Fish and Game (ADFG) of in-river Chinook Salmon indicate an abundance that may not meet the minimum bound of the sustainable escapement goal range of 21,000 to 31,000 fish. ADFG management actions closed all State Chinook Salmon fisheries of the Upper Copper River by mid-season.
- Upper Copper River Federal subsistence fishery permits; issued were (preliminary numbers): 202 Chitina Subdistrict, 293 Glennallen Subdistict, and 2 Batzulnetas permits.
- Historical Federal subsistence harvests in the Upper Copper River through 2023 are provided in Tables 1-4.
- Federal subsistence fishery in the Lower Copper River; 80 permits were issued, and total in-season reported harvest was 425 Sockeye Salmon and 2 Chinook Salmon.



Tanada Creek Salmon Weir, 2024

FISHERIES RESEARCH AND MONITORING PROJECTS

Tanada Creek Salmon Weir

The Wrangell-St. Elias National Park and Preserve (WRST) Fisheries Program operated the Tanada Creek salmon weir located at Batzulnetas (funded through the Fisheries Resource Monitoring Program (FRMP)). Weir installation was completed on June 25. The first salmon was documented passing the weir on June 26. As of September 10, there have been 14,508 Sockeye Salmon and 13 Chinook Salmon recorded in passage for the season. The season count appears likely to end below the historical average of approximately 18,000 fish. The weir is scheduled to continue operating through September 25.

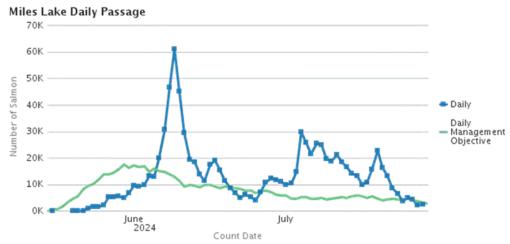
UPPER COPPER RIVER FISHERIES

2024 Copper River Salmon Run Strength and Management Actions

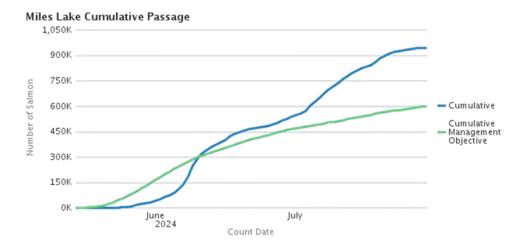
The 2024 Copper River salmon run began in low numbers relative to the date in season. The return then increased in strength as the season progressed. A similar pattern of delayed run timing for these stocks has been observed in recent years. Federal managers monitored run strength indices throughout the season to evaluate the need for appropriate fisheries management actions. No Federal Special Actions were issued by the in-season manager in the fisheries of the Copper River Drainage. Harvest opportunities continued throughout the season.

Commercial fishing opportunities in the Copper River District were limited during the early season in response to low numbers of returning salmon at the start of the season. As the run developed, fishing opportunities were expanded during the season. The season total commercial harvest for the Copper River District through August 13 is reported to include 1,400,000 Sockeye Salmon and 8,871 Chinook Salmon

The ADFG sonar at Miles Lake (located just downstream of the Million Dollar Bridge in the Copper River) discontinued operation on July 28. A total of 946,188 salmon were estimated in migration upstream for the season. The season passage estimate is 58% above the July 28 management objective of 599,157 salmon.



2024 Copper River Salmon Passage at Miles Lake Sonar



*Management objectives are based on historical run-timing to achieve the in-river goal.

Source: http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareacopperriver.salmon escapement

In contrast to the high sonar estimates, assessments by ADFG biologists of the numbers of Chinook Salmon in-river indicate a weak return that likely did not meet the sustainable escapement goal for the season. In response to the in-season assessment, the ADFG closed all State fisheries of the Upper Copper River drainage to Chinook Salmon harvest, including catch and release in sport fisheries and the State subsistence fishery of the Glennallen Subdistrict. All State users were required to closely attend fish wheels being operated so Chinook Salmon could be immediately released.

These restrictions did affect those fishing under Federal subsistence regulations. After careful consideration and consultation no Federal Special Action was issued by the in-season manager to restrict harvest Chinook Salmon harvest in fisheries of the Copper River Drainage.

Although Federal actions were not taken, WRST prepared and distributed advisory announcements to inform all subsistence users of the concerns for Copper River Chinook Salmon. The announcement strongly recommended that users release healthy Chinook Salmon from all gear types.

2024 Upper Copper River Federal Subsistence Fishing Season, Permits, and Historical Harvests

The Federal subsistence salmon fisheries of the Upper Copper River are open from May 15 through September 30. Through August 15, WRST has issued 203 Chitina Subdistrict permits, 294 Glennallen Subdistrict permits, and 2 Batzulnetas permits (numbers of permits issued are preliminary until records from remote issuing stations are received). Tables 1 through 4 show historical reported and expanded harvests for the Federal subsistence fisheries in each subdistrict through the 2023 season.

2024 Lower Copper River Federal Subsistence Fishery

The Federal subsistence salmon fishery in the Lower Copper River near Cordova is open from June 1 through September 30. To date, there have been 80 permits issued through the OSM database. A total of 425 Sockeye Salmon and 2 Chinook Salmon were reported in harvest through July 29.

		Exp	anded Harv	Expanded Harvest Estimates ²	es ²			All Specie	imates ² All Species, Approximate Harvest by Gear Type	e Harvest by	Gear Type	
				Steelhead/				Fish				
				Rainbow	Other	Total	Fish	Wheel		Dip Net	Rod and	Rod and
Year	Sockeye	Chinook	Coho	Trout	Species	Harvest	Wheel %	Total	Dip Net %	Total	Reel %	Reel Total
2002	10,933	745	20	LL	N.A.	11,775						
2003	17,393	289	259	16	N.A.	18,355						
2004	24,217	815	216	15	N.A.	25,264						
2005	24,781	412	55	7	37	25,292						
2006	20,737	507	55	17	37	21,353						
2007	19,108	704	85	7	25	19,929						
2008	14,865	892	268	21	54	16,100						
2009	14,821	290	52	22	36	15,521						
2010	17,156	362	111	46	25	17,700	90.3%	15,978	%9.6	1,697	0.1%	25
2011	18,214	814	70	9	283	19,387	88.4%	17,142	11.4%	2,206	0.2%	39
2012	17,297	410	93	45	113	17,958	90.4%	16,228	9.4%	1,684	0.3%	45
2013	20,850	396	36	~	93	21,382	85.9%	18,369	14.1%	3,013	%0.0	0
2014	25,659	456	26	14	57	26,284	89.3%	23,458	10.8%	2,825	%0.0	3
2015	29,157	430	29	15	218	29,849	90.1%	26,900	%2.6	2,883	0.2%	99
2016	21,106	465	52	9	406	22,035	%0.06	19,820	10.0%	2,197	0.1%	18
2017	20,497	485	10	8	549	21,550	96.2%	20,724	3.7%	804	0.1%	19
2018	20,634	2,763	31	4	45	23,476	83.4%	19,579	16.5%	3,878	0.1%	19
2019	22,302	1,025	22	3	59	23,411	%0.62	18,485	21.0%	4,909	0.1%	16
2020	16,337	837	26	7	09	17,266	75.9%	13,098	24.1%	4,159	0.1%	6
2021	20,481	610	3	9	32	21,132	70.8%	14,951	29.2%	6,175	%0.0	9
2022	17,489	994	45	16	09	18,603	80.2%	14,919	19.8%	3,676	%0.0	7
2023	20,984	805	15	11	18	21,833	%9.07	15,414	29.4%	6,419	%0.0	1
2024												
5-yr. Avg. 2019-2023	19,519	854	22	8	46	20,449	75.3%	15,374	24.7%	5,068	0.0%	8
10-yr. Avg. 2014-2023	21,465	887	33	6	150	22,544	82.5%	18,735	17.4%	3,793	0.1%	16

This table reflects entries to the online database from 2011 through 8/19/2024. Data prior to 2011 relies on NPS records. Data for all years subject to changes resulting rom entry error corrections. Expanded Harvest estimate derived from a basic, direct ratio expansion based on the percentage of permits that reported.

Table 2. Glennallen Subdistrict Federal Reported and Expanded Subsistence Fishery Harvests¹

			Soci	Sockeye	Chin	Chinook	ŭ	Coho	Stee lhead/Ra	Steelhead/Rainbow Trout		Other Species	All Species
		Percentage										•	ı
i	Permits	•	Reported	Harvest	Reported	Harvest	Reported	Harvest	Reported	Harvest	Reported	Harvest	Total Harvest
Year	Issued	Reported	Harvest	Estimate [*]	Harvest	Estimate [*]	Harvest	Estimate [*]	Harvest	Estimate [*]	Harvest	Estimate [*]	Estimate [*]
2002	201	9.08	8,009	9,937	564	700	16	20	62	77	35	43	10,777
2003	221	83.3	13,623	16,354	554	999	145	174	13	16	20	24	17,233
2004	261	78.9	17,704	22,439	989	908	152	193	12	15	12	15	23,468
2005	267	85.8	19,973	23,279	331	386	47	55	9	7	32	37	23,763
2006	254	87.4	16,711	19,120	430	492	28	32	15	17	32	37	19,698
2007	281	84.3	15,225	18,060	695	675	34	40	9	7	21	25	18,808
2008	269	81.4	11,347	13,940	705	998	148	182	17	21	4	54	15,063
2009	274	85.0	11,836	13,925	494	581	34	40	19	22	31	36	14,605
2010	269	87.7	12,849	14,651	300	342	64	73	39	44	22	25	15,136
2011	277	87.7	14,163	16,145	701	662	53	09	5	9	248	283	17,293
2012	275	92.0	14,461	15,718	371	403	78	85	40	43	104	113	16,363
2013	273	89.0	15,834	17,789	331	372	24	27	9	7	62	70	18,264
2014	315	90.5	21,603	23,877	399	441	23	25	10	11	52	57	24,412
2015	325	92.3	24,695	26,753	384	416	13	14	7	∞	201	218	27,408
2016	320	82.8	15,884	19,181	369	446	6	11	5	9	332	401	20,044
2017	338	85.2	15,691	18,415	399	468	1		7	8	468	549	19,442
2018	335	91.3	15,287	16,736	2,432	2,662	0	0	4	4	41	45	19,448
2019	343	90.1	15,873	17,620	849	942	0	0	3	3	53	59	18,624
2020	376	2.06	11,456	12,632	682	752	0	0	9	7	54	09	13,450
2021	355	86.5	13,117	15,168	434	502	0	0	5	9	28	32	15,708
2022	297	83.5	12,133	14,530	743	890	7	2	13	16	48	57	15,495
2023	290	83.8	12,557	14,986	551	658	∞	10	6	11	15	18	15,681
2024	294												
5-yr. Avg. 2019-2023	332	87	13,027	14,987	652	749	2	2	7	∞	40	45	15,792
10-yr. Avg. 2014-2023	329	88	15,830	17,990	724	818	9	9	7	∞	129	150	18,971

This table reflects entries to the online database from 2011 through 8/19/2024. Data prior to 2011 relies on NPS records. Data for all years subject to changes resulting from entry error corrections. ² Expanded Harvest estimate derived from a basic, direct ratio expansion based on the percentage of permits that reported.

Table 3. Chitina Subdistrict Federal Reported and Expanded Subsistence Fishery Harvests¹

			Soci	Sockeye	Chir	Chinook	ည် 	Coho	Steelhead/Rainbow Trout	ninbow Trout	Other	Other Species	All Species
		Percentage		110,000,04		Hemilia		115.00.00		110.000.00		110-110-100	T. 40 1 II 24
Year	Permits Issued	of Permits Reported	Reported Harvest	Harvest Estimate ²	Reported Harvest	Harvest Estimate²	Reported Harvest	Harvest Estimate ²	Reported Harvest	Harvest Estimate²	Reported Harvest	Harvest Estimate²	Total Harvest Estimate ²
2002	122	73.0	575	788	33	45	0	0	0	0	N.A.	N.A.	833
2003	100	82.0	717	874	18	22	70	85	0	0	N.A.	N.A.	982
2004	109	76.1	1,215	1,597	7	6	18	24	0	0	N.A.	N.A.	1,629
2005	92	84.2	1,265	1,502	22	26	0	0	0	0	0	0	1,529
2006	75	85.3	1,379	1,617	13	15	20	23	0	0	0	0	1,655
2007	86	88.8	929	1,046	26	29	40	45	0	0	0	0	1,120
2008	82	85.4	789	924	22	26	74	87	0	0	0	0	1,036
2009	89	91.2	817	968	8	6	11	12	0	0	0	0	917
2010	92	85.9	2,061	2,399	17	20	33	38		1	0	0	2,459
2011	85	85.9	1,766	2,056	13	15	8	6	0	0	0	0	2,081
2012	68	93.3	1,332	1,427	9	9	8	6	1	_	0	0	1,443
2013	66	6.06	1,999	2,199	17	19	8	6		1	10	11	2,239
2014	113	94.7	1,549	1,636	14	15	89	72	3	3	0	0	1,726
2015	1111	92.8	2,231	2,404	13	14	14	15	7	∞	0	0	2,441
2016	128	80.5	1,549	1,925	16	20	33	41	0	0	4	5	1,991
2017	132	79.5	1,454	1,828	12	15	7	6	0	0	0	0	1,852
2018	132	91.7	3,144	3,430	92	100	28	31	0	0	0	0	3,561
2019	181	9.06	4,053	4,473	75	83	20	22	0	0	0	0	4,578
2020	215	89.3	3,249	3,638	9/	85	23	26	0	0	0	0	3,749
2021	194	91.8	4,765	5,193	66	108	3	3	0	0	0	0	5,304
2022	177	87.6	2,555	2,918	91	104	37	42	0	0	2	2	3,066
2023	196	88.8	5,138	5,788	131	148	5	9	0	0	0	0	5,941
2024	203												
5-yr. Avg. 2019-2023	193	06	3,952	4,402	94	105	18	20	0	0	0	0	4,528
10-yr. Avg. 2014-2023	158	68	2,969	3,323	62	69	24	27	1	1	1	1	3,421

This table reflects entries to the online database from 2011 through 8/19/2024. Data prior to 2011 relies on NPS records. Data for all years subject to changes resulting from

entry error corrections.
² Expanded Harvest estimate derived from a basic, direct ratio expansion based on the percentage of permits that reported.

Table 4. Batzulnetas Federal Reported and Expanded Subsistence Fishery Harvests¹

		tas reucia		keye		nook		Species
Year	Permits Issued	Percentage of Permits Reported	Reported Harvest	Harvest Estimate ²	Reported Harvest	Harvest Estimate ²	Reported Harvest	Harvest Estimate ²
2002	1	100.0	208	208	0	0	0	0
2003	1	100.0	164	164	0	0	0	0
2004	1	100.0	182	182	0	0	0	0
2005	1	100.0	0	0	0	0	0	0
2006	0	N.A.	0	0	0	0	0	0
2007	1	100.0	1	1	0	0	0	0
2008	1	100.0	1	1	0	0	0	0
2009	0	N.A.	0	0	0	0	0	0
2010	3	100.0	106	106	0	0	0	0
2011	3	66.7	9	14	0	0	0	0
2012	3	66.7	101	152	0	0	0	0
2013	3	100.0	862	862	5	5	12	12
2014	2	100.0	146	146	0	0	0	0
2015	4	100.0	0	0	0	0	0	0
2016	0	N.A.	0	0	0	0	0	0
2017	1	100.0	254	254	2	2	0	0
2018	1	100.0	468	468	0	0	0	0
2019	1	100.0	209	209	0	0	0	0
2020	1	100.0	67	67	0	0	0	0
2021	1	100.0	120	120	0	0	0	0
2022	2	100.0	41	41	0	0	0	0
2023	2	100.0	211	211	0	0	0	0
2024	2							
5-yr. Avg. 2019-2023	1	100	181	181	0	0	0	0
10-yr. Avg. 2014-2023	2	100	217	217	1	1	1	1

¹ This table reflects entries to the online database from 2011 through 8/19/2024. Data prior to 2011 relies on NPS records. Data for all years subject to changes resulting from entry error corrections.

² Expanded Harvest estimate derived from a basic, direct ratio expansion based on the percentage of permits

that reported.



United States Department of the Interior

NATIONAL PARK SERVICE

Wrangell-St. Elias National Park & Preserve Mile 106.8 Richardson Hwy. P.O. Box 439 Copper Center, AK 99573-0439 907 822 5234 Fax 907 822 3281 http://www.nps.gov/wrst



WRANGELL-ST. ELIAS NATIONAL PARK AND PRESERVE COPPER RIVER SOCKEYE SALMON RESEARCH PROJECTS 2022-2026

OVERVIEW

Recent low returns and harvests of Copper River (CR) sockeye salmon have raised concerns among Federal subsistence users and others about the status and management of CR sockeye salmon stocks and whether rural communities are meeting their subsistence needs for salmon. Given these concerns, and recognizing the complex social-ecological dimensions of CR sockeye salmon, since 2018 the National Park Service (NPS Wrangell-St. Elias National Park and Preserve) and several collaborators have initiated research projects to investigate (1) factors that may be affecting the status of CR sockeye salmon stocks, (2) recent patterns in Upper CR subsistence harvests, and (3) potential assessment tools and management strategies for ensuring resilience of CR sockeye salmon stocks and subsistence harvests to changing environmental conditions. Collaborators include the Alaska Department of Fish and Game (ADF&G), the University of Alaska Fairbanks (UAF), Prince William Sound Science Center (PWSSC), the Ahtna Intertribal Resource Commission (AITRC), and the Native Village of Eyak (NVE).

PROJECT SUMMARIES

Project 1: Evaluating Genetic Analysis of Copper River Sockeye Salmon Stocks for In-Season **Decision Making (NPS funding** \$440k; leveraged ADF&G funding **\$347k**). The 2022 fishing season marked the first year of a 3-year (2022-2024) research project that will evaluate (1) the use of in-season genetic analysis as a tool for estimating the genetic stock identification (GSI) of sockeye salmon harvests in Copper River fisheries, and (2) the potential for inseason GSI estimates to inform realtime fisheries management decisions designed to ensure long-term health and sustainability of Copper River salmon stocks and associated fisheries. Inseason stock composition information has the potential to aid fishery managers in minimizing the risk of fishery management decisions to small

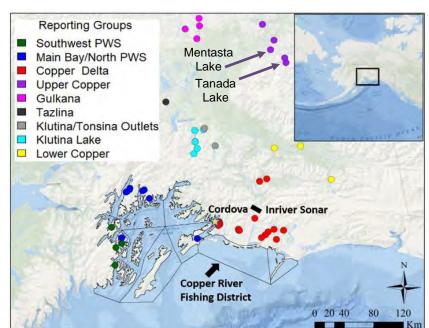


Figure 1. Prince William Sound and the Copper River watershed located in southcentral Alaska. Points indicate sockeye salmon populations in the genetic baseline and associated stock reporting groups. (Figure courtesy of Kyle Shedd and Stormy Haught, ADF&G.)

and/or sensitive stocks while maximizing sustainable harvest of abundant stocks. This research project was developed in partnership with ADF&G and in 2022 was implemented by ADF&G collaborators from the Gene Conservation Laboratory, Division of Commercial Fisheries, and Division of Sport Fish. AITRC contributed funding and staff support to the project in 2023 by assisting ADF&G with the collection of samples from fisheries in the Chitina and Glennallen subdistricts. In 2024, AITRC again provided staff support for sample collection with funding support from NPS. Although the funding for this project only covers the genetic analysis of 2022–2024 harvests, the State of Alaska is looking into securing federal disaster relief funds to continue GSI analyses of Copper River sockeye salmon harvests in 2025–2027.

2022-2023 Sampling, Analysis, & Reporting. Samples collected in 2022 were analyzed postseason and a summary report of the GSI estimates was submitted to the NPS in March 2023. The 2022 GSI estimates also were presented at AITRC's annual meeting at the Buster Gene Memorial Hall in Gakona Village on April 28, 2023.

2023-2024 Sampling, Analysis, & Reporting. A summary report of all 2023 preliminary GSI results was provided to ADF&G and Wrangell-St. Elias fisheries managers in March, 2024, and a summary of 2023 results was presented at the AITRC annual meeting in Gakona Village in April 2024.

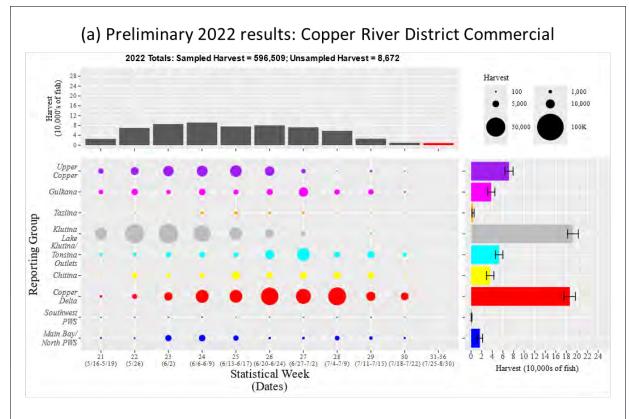
During the 2024 season, a total

Figure 2. A. AITRC fisheries technician clipping the axillary fin (source of genetic material) from a sockeye salmon harvested in the Glennallen Subdistrict subsistence fishery, 6/18/2022. B. ADF&G Fishery Biologist Andy Barclay clipping the axillary fin from a sockeye salmon harvested in the Chitina Subdistrict personal use fishery, 6/18/2022. C. Axillary fins sampled from sockeye salmon harvested in the personal use fishery.

of 3,882 genetic tissue samples were collected from sockeye salmon harvested in the Copper River District commercial, Chitina Subdistrict personal use, and Glenallen Subdistrict subsistence fisheries. For the commercial fishery, 1,777 samples were collected during 10 fishing periods from May 16 (period 1) to July 16 (period 16), with period sample sizes ranging from 41 to 193 fish. Harvest samples from the first six weeks of the fishery were analyzed in season to produce GSI estimates representing each statistical week's harvest. Weekly inseason estimates were provided to ADF&G and NPS staff within less than one week of sample collection. Harvest samples from statistical weeks 27–29 will be analyzed postseason to produce 3 sets of GSI estimates representing the harvest from each statistical week. For the personal use fishery (1,047 samples collected from June 14 to August 19) and subsistence fishery (1,058 samples collected from June 6 to August 29), monthly GSI estimates were provided inseason to ADF&G and NPS staff. However, insufficient samples were collected to produce GSI estimates for the August subsistence harvest due to lack of fishing effort near Chitina. Postseason analyses of

The final estimates for all three years of this study will be published in an ADF&G Fishery Manuscript Report by the fall of 2025.

samples collected from the commercial fishery after week six are on track to be completed by February 28, 2025.



(b) Preliminary 2023 results: Copper River District Commercial

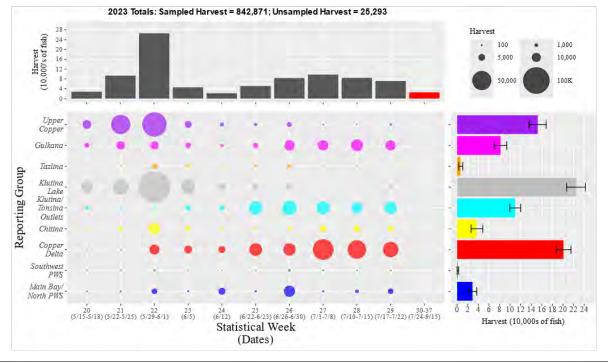


Figure 3. Preliminary Copper River District commercial sockeye salmon harvest estimates by reporting group and statistical week for 2022 (a) and 2023 (b), as presented by ADF&G during the April 2024 AITRC meeting. Key: The bubble plot shows stock-specific harvest estimates (means) of sockeye salmon for all statistical weeks (x-axis) and 9 reporting groups (y-axis). Circle sizes represent the stock-specific harvest for a statistical week (see legend, top right of figures), with reporting groups denoted by color. The top bar in each plot shows the total harvest during each week, with unsampled weeks in red. The right bar plot shows the stock-specific harvest and 90% credibility intervals for the entire year across all sampled weeks.

Project 2: Describing and Modeling Factors Affecting Migratory Success of Copper River Sockeye Salmon (NPS funding \$140k). In August of 2022, collaborators from PWSSC and UAF began a 3-year project (2022-2024) that aims to develop a better understanding of how environmental changes in the Gulf of Alaska and the Copper River watershed may impact spawning migration success by sockeye salmon under future ecological scenarios. Supported by NPS funding, NVE collaborators joined the project in 2023 and will contribute data from 2005-2009 telemetry studies and additional subject-matter expertise. The research team is working to integrate prior radio-telemetry data on Copper River sockeye salmon spawning migration with several long-term ADF&G data sets to develop forecasting models for sockeye salmon that will incorporate new information from a recently available hydrological model developed by the U.S. Geological Survey. Preliminary results from this project were presented at the AITRC annual meeting in Gakona Village in April 2024. In addition to PWSSC, UAF, and NVE, collaborators include ADF&G and Wrangell-St. Elias.

Project 3: Assessing Subsistence Harvests in Upper Copper River Communities (NPS funding \$371k). Field work for this 3-year project (2023-2025) began in March 2023 and involved the collection of baseline information on the harvest and use of subsistence resources in four communities on the upper Copper River through implementation of comprehensive household surveys and a smaller number of ethnographic interviews. Residents of Chistochina and Mentasta were surveyed in early 2023, and Slana and Nabesna Road residents will be surveyed in 2024. Communities included in this project were most recently surveyed in either 2009 or 2010, and periodic repetition of the same survey methods provides important data for informing subsistence management. As part of the baseline community harvest assessment, interviewers ask questions designed to assess whether residents of these communities are meeting their subsistence needs, especially for salmon, and the severity of the impacts if needs are not being met. If Copper River salmon resources are *not* meeting their needs, the ethnographic interviews explore the impacts this has had on individual households and the community at large. Recent Tribal consultations suggest that up-river communities may not be

meeting their subsistence needs, and the federal in-season manager for the Copper River fishery needs additional information for considering potential management decisions. Collaborators include ADF&G, AITRC, and Wrangell-St. Elias.

Project 4: Examining Health Metrics of Copper River Sockeye Salmon Stocks to Inform Management Decision Making (NPS funding \$318k; other leveraged funding from ADF&G, UAF, PWSSC, and NPS projects \$1,364k). Also in 2023, a fourth project was begun by UAF and PWSSC in partnership with ADF&G, building upon the stock composition project (no. 1, above) and other ongoing research projects conducted by UAF and PWSSC. This 3-year project (2023-2025) will characterize the health and energetic status of genetically determined sockeye salmon stocks (based on genetic stock reporting groups, Fig. 1) to develop a better understanding of escapement quality. Aspects of escapement quality include body size and energy content (important factors that affect migratory success), diversity and loads of pathogens, sex ratio, and the distribution of spawners among different stocks in the watershed. Differential survival of Copper River sockeye salmon stocks due to changes in body size, energy content, physiological quality, migration difficulty, and harvest pressure may leave some stocks more



Figure 4. ADF&G fisheries technician using a "fish fat meter" to non-destructively measure fat content of a sockeye salmon harvested in the Glennallen Subdistrict subsistence fishery, 7/7/2023.

vulnerable to environmental changes than others, potentially increasing mortality risk. A better understanding of health metrics that correlate with stock-specific vulnerability and mortality risk can help fishery managers mitigate these issues by adjusting gear size, run timing closures, or harvest limits to ensure all stocks achieve sustainable escapement levels, while also providing adequate harvest opportunities. In addition to UAF, PWSSC, and ADF&G, collaborators include Wrangell-St. Elias and AITRC.

Project 5: Managing Harvest of Salmon in a Changing Copper River, Alaska (NPS funding \$419k). A fifth Copper River project will be implemented in 2025-2026 as part of a larger project made possible by \$6.2 million of Inflation Reduction Act funding awarded to the NPS Alaska Region. The Alaska-wide NPS project aims to mitigate environmental uncertainties and improve subsistence food security through costewardship arrangements with Alaska Native entities and funding agreements with other partners as well as research and monitoring activities focusing on Copper River sockeye salmon and other key subsistence species. The associated Copper River sockeye salmon project, "Managing Harvest of Salmon in a Changing Copper River," will be led by PWSSC and UAF in partnership with Wrangell-St. Elias. These partners will convene a diverse group of subject matter specialists to envision the future of Copper River sockeye salmon harvest opportunities and their biological, ecological, and social implications. Other working group participants are expected to include ADF&G, AITRC, NVE, academic institutions in addition to UAF, the U.S. Geological Survey, and other subject matter experts. Working group sessions will be held in the Copper River Basin and Cordova to facilitate engagement with stakeholders in both locations. Project participants will synthesize existing data and build a predictive model that considers the full life-cycle of Copper River sockeye salmon and includes combined effects of changing ocean and river conditions resulting from climate change. The model will be structured in a way that will enable assessments of biological, economic, and social consequences of potential management decisions relating to harvest (Fig. 5.). A project steering committee will meet in October 2024 to begin planning project activities.



Figure 5. A simple illustration of the various fates of Copper River sockeye salmon during their spawning migration.

For more information, contact:

Mark E. Miller, Ph.D.
Ecologist & Research Coordinator
Wrangell-St. Elias National Park & Preserve
Copper Center, AK
907-302-1373 (cell)
memiller@nps.gov

Barbara Cellarius, Ph.D. Subsistence Coordinator & Tribal Liaison Wrangell-St. Elias National Park & Preserve Copper Center, AK 907-822-7236 (office); 907-707-9735 (cell) barbara cellarius@nps.gov



United States Department of the Interior

NATIONAL PARK SERVICE

Wrangell-St. Elias National Park & Preserve Mile 106.8 Richardson Hwy. - P.O. Box 439 Copper Center, AK 99573-0439 907 822 5234 Fax 907 822 3281



http://www.nps.gov/wrst

WRANGELL-ST. ELIAS NATIONAL PARK AND PRESERVE SUBSISTENCE AND ANTHROPOLOGY REPORT **FALL 2024**

Amber Cohen, Cultural Anthropologist, (907) 822-7284 or amber cohen@nps.gov Barbara Cellarius, Cultural Anthropologist and Subsistence Coordinator, (907) 822-7236 or barbara cellarius@nps.gov

Federal subsistence hunting permits issued for Wrangell-St. Elias in 2024

Table 1 lists the preliminary numbers of caribou, goat, moose, and sheep permits issued by park and Tetlin National Wildlife Refuge staff for 2024 federal subsistence hunts on Wrangell-St. Elias lands in Units 11 and 12. As of September 6, 203 permits had been issued for these hunts. Park staff had additionally issued 30 Unit 13 moose permits at the Slana Ranger Station and numerous joint statefederal permits (RM291) for the moose hunt in portions of Units 11 and 12 in the northern part of the park.

What is next? Harvest information will be provided in the Spring 2025 report.

Upper Copper River communities surveyed about subsistence harvests

The Alaska Department of Fish and Game Division of Subsistence, the Ahtna Intertribal Resource Commission, and Wrangell-St. Elias National Park and Preserve staff completed comprehensive harvest assessments in Mentasta, Chistochina, Slana, and along the Nabesna Road in 2023-2024. Community data review meetings were held in Mentasta in 2023 and in Chistochina in 2024. A data review meeting will be held in Slana in late fall/early winter 2024. Staff have been working on a technical paper, which is scheduled for completion in 2025.

Community outreach meetings held for funding opportunity to address subsistence food security needs

The National Park Service Alaska Region has been awarded approximately \$6.2 million in Inflation Reduction Act funding for a project that aims to mitigate environmental uncertainties and improve subsistence food security. Approximately \$1.3 million has been allocated to Wrangell-St. Elias, with about half going towards enhancing community subsistence food security resilience. During spring and summer 2024, Wrangell-St. Elias staff met with eleven tribal councils and six communities to introduce the funding opportunity and discuss project ideas. Proposals were accepted through September 30, 2024, and funded projects will start in 2025.

Table 1. Federal Subsistence Registration Permits in Wrangell-St. Elias NPP, 2014-2024

Unit 11 Goat (FG1101)

,	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024*
Permits Issued	31	29	22	26	30	27	27	20	8	6	22
Individuals Hunting	10	6	4	3	8	8	4	2	1	2	
Animals Harvested	0	0	0	0	0	1	0	0	0	O	
Success Rate (%)	0.0	0.0	0.0	0.0	0.0	12.5	0.0	0.0	0.0	0.0	

Unit 11 Remainder Moose -- Fall Hunt in part of unit outside of the RM291 hunt area (FM1106)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024*
Permits Issued	123	128	138	132	144	107	156	140	139	140	132
Individuals Hunting	70	70	75	72	85	45	68	71	66	59	
Animals Harvested	10	13	16	13	12	10	15	11	15	10	
Success Rate (%)	14.3	18.6	21.3	18.1	14.1	22.2	22.1	15.5	22.7	16.9	

Unit 11 Moose -- Winter Hunt in southern part of unit (FM1107)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024*
Permits Issued	32	17	20	14	11	8	8	7	10	21	10
Individuals Hunting	3	3	4	4	2	2	1	2	4	1	
Animals Harvested	0	0	1	0	0	0	1	0	1	1	
Success Rate (%)	0.0	0.0	25.0	0.0	0.0	0.0	100.0	0	25.0	100.0	

Unit 11 Elder Sheep (FS1104)

Office of Colors											
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024*
Permits Issued	25	25	32	34	38	34	38	26	25	22	30
Individuals Hunting	10	8	12	13	18	14	12	12	10	11	
Animals Harvested	1	3	3	4	1	1	1	3	2	3	
Success Rate (%)	10.0	37.5	25.0	30.8	5.6	7.1	8.3	25.0	20.0	27.3	

Unit 11 Elder/Junior Sheep (FS1103)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024*
Permits Issued	0	0	1	2	1	0	1	1	2	1	0
Individuals Hunting	-	-	1	2	0	-	0	0	0	0	
Animals Harvested	-	-	0	0	-	-	-	1	-	-	
Success Rate (%)	-	-	0.0	0.0	-	_	-	-	-	-	

Unit 12 Caribou -- Chisana (FC1205)

Office 12 Out 1500 Offisa	11a (1 O 12	<u> </u>									
	2014	2015	2016	2017	2018	2019	2020	2021	2022**	2023	2024*
Permits Issued	11	11	8	8	6	4	7	5	n/a	6	8
Individuals Hunting	8	7	8	3	3	3	4	1	n/a	4	
Animals Harvested	2	0	1	0	2	1	3	0	n/a	2	
Success Rate (%)	25.0	0.0	12.5	0.0	66.7	33.3	75.0	0.0	n/a	50.0	

^{**} Closed in 2022 due to conservation concerns.

Table 1. Federal Subsistence Registration Permits in Wrangell-St. Elias NPP, 2014-2024 (cont.)

Unit 12 Elder Sheep (FS1201)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024*
Permits Issued	9	7	11	12	14	14	12	13	8	11	9
Individuals Hunting	5	3	6	4	8	6	4	6	4	5	
Animals Harvested	1	0	1	1	0	0	1	0	0	0	
Success Rate (%)	20.0	0.0	16.7	25.0	0.0	0.0	25.0	0.0	0.0	0.0	

Unit 12 Elder/Junior Sheep (FS1204)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024*
Permits Issued	0	0	0	0	0	0	0	0	1	1	1
Individuals Hunting	-	-	-	-	-		-	-	0	0	
Animals Harvested	-	-	-	-	-		-	-	-	-	
Success Rate (%)	-	-	-	-	-		-	-	-	-	

Source: Federal Subsistence Permit Database.

Note: Success rate is calculated based on the number of individuals hunting, not total permits issued.

Traditional Knowledge, Ethnographic, and Subsistence Projects:

Work is underway on several traditional knowledge, ethnographic and subsistence projects, with most of the work being carried out by project partners through cooperative agreements.

Assessment: This overview of Alaska Native history and culture in the Ahtna Region of eastern interior Alaska focuses on the Ahtna communities associated with Wrangell-St. Elias National Park and Preserve. It is based existing ethnographic and historical sources along with information from the authors' own fieldwork and describes Ahtna culture as it existed in the late nineteenth and early twentieth centuries. It also examines the longstanding relationships of Ahtna to lands in and near the park, primarily in the northern part of the Copper River Basin. Recommendations are made for future historical and ethnographic research to address identified data gaps. The Annotated Bibliography included in the report contains both the sources used in this report and other materials that can be consulted for further information about the culture and history of Ahtna. The report is illustrated with maps along with numerous historical photographs.

Ahtna and Wrangell-St. Elias National Park and Preserve was written by William E. Simeone and Odin T.W. Miller and is the result of collaboration between Wrangell-St. Elias National Park and Preserve and the Ahtna Intertribal Resource Commission. This project was completed in September 2024, and the report will be available for download this fall from the park's website (www.nps.gov/wrst) under the tab "Learn About the Park"/ "History and Culture"/ "People"/ "Ahtna and Wrangell-St. Elias: An Ethnographic Overview and Assessment."

^{* 2024} data are as of 9/11/2024.

Quantify Changing Environmental Conditions to Inform Decisions about Allowed Means of Winter Access to Subsistence Resources: This project quantifies temporal and spatial patterns of river freeze-up, winter ice conditions, and break-up using remote sensing data and evaluates the implications of changing environmental conditions for temporal and spatial patterns of winter subsistence access in the park. The analysis focuses on the Copper and Chitina Rivers. In addition to a recently published peer-reviewed journal article, an outreach product for the general public will be produced. This project is being completed through a cooperative agreement with the University of Alaska Fairbanks (UAF) and is scheduled for completion in 2024.

Dall Sheep Local Knowledge Interviews: Anthropology and wildlife staff at Wrangell-St. Elias conducted a series of local knowledge interviews about Dall sheep with eight long-time hunters and others with a long history of observing sheep in Wrangell-St. Elias. A summary report is being written. Funding for this work comes from the NPS Alaska Subsistence Advisory Council and Alaska Geographic.

Outer Coast Ethnographic Landscape Study: Beginning in fall 2024, a team of cultural anthropologists plus an archeologist will work closely with Eyak and Tlingit knowledge holders to gather information to complete an Ethnographic Landscape Study focusing on lands along the park's coastline to be used as baseline documentation for park management for coastal resources at risk of being lost due to climate warming and glacial melt. In addition to NPS staff and tribal partners, we anticipate working with Doug Deur, Portland State University, and possibly Thomas Thornton, University of Alaska Southeast and National Academy of Sciences.

Copper River Salmon In-Season Teleconferences: During summer 2024, weekly teleconferences hosted by the Ahtna Intertribal Resource Commission (AITRC) with funding from Wrangell-St. Elias provided a venue for Copper River subsistence fishers to share firsthand knowledge about Copper River salmon harvests and returns along with river conditions and other factors that may affect harvests and returns with one another as well as agency staff. Biologists and fisheries managers also shared information on run timing and strength, management strategies, and various Copper River fisheries research and monitoring projects. This multi-year project will continue in summer 2025, and people fishing on the Copper River are encouraged to participate. Call-in information for 2025 will be available in the spring.

Report updated 9/11/2024

U.S. Fish & Wildlife Service

Moose twinning rate estimates for portions of Alaska GMU 12 including Tetlin National Wildlife Refuge, 2021-2024.

Brent E. Jamison, Wildlife Biologist, Tetlin NWR, Tok, Alaska.



June 2024

Introduction

Moose (*Alces alces gigas*) are among the most highly valued subsistence resources on Tetlin National Wildlife Refuge (NWR). Since the Refuge was established, biologists have at various times conducted moose browse surveys (Collins et al. 2004), studies of moose movements and survival (USFWS, unpublished data), and population surveys.

Twinning rates are the most useful single index of the nutritional status of cow moose and are closely tied to habitat quality (Franzmann and Schwartz 1985, Keech et al. 2000, Boertje et al. 2007). We began annual surveys to estimate moose twinning rates for the Tetlin NWR and adjacent lands to complement population surveys that are conducted in cooperation with the Alaska Department of Fish and Game (ADF&G).

Methods

The survey area was within Alaska Game Management Unit (GMU) 12 and encompassed 3,065 mi². The area was bounded by the Tok Cutoff (AK Hwy 1) on the west, Nutzotin and Mentasta Mountain ranges on the south and southwest, the Alaska Highway to the north, and the Canadian border to the east (Figure 1). Land ownership includes Alaska State lands, Wrangell-St. Elias National Preserve, Tetlin National Wildlife Refuge, Native village of Tetlin, Tetlin Native Corporation lands, Native Village of Northway, Northway Native Association, and Doyon Limited Regional Corporation.

No telemetry studies of moose were ongoing and no radio-collared cows were present within the survey area from 2021-2024. Therefore, we conducted survey flights to search suitable habitat for uncollared cows with calves. We performed surveys from fixed-wing aircraft (Piper PA-18 Super Cub) annually between May 29 and June 3. We operated aircraft at \leq 500 ft above ground level and at 65-85 mph ground speed, and continued survey flights until we encountered \geq 30 cows with one or more calves. The pilot and observer both searched for moose.

We categorized moose as bull, yearling cow, cow with no calf, cow with one calf, or cow with two calves. We recorded the location of each cow moose observation with a handheld GPS unit to avoid double counting moose during flights on subsequent days.

We calculated the twinning rate (T) as,

$$T = \frac{M_t}{M_C + M_t}$$

where M_c was the number of cows observed with one calf and M_t was the number of cows observed with twins. We calculated the Standard Error (SE) of the estimate and binomial 90% confidence intervals following Cochran (1977) and Boertje et al. (2007). The multiyear twinning rate was calculated by pooling observations across years.

We calculated twinning rates separately for the eastern and western portions of the survey area (east and west of the Nabesna River) after examining preliminary results of the first three years of surveys. We did not make statistical comparisons between the eastern and western portions of the survey area due to small sample sizes and unequal search effort.

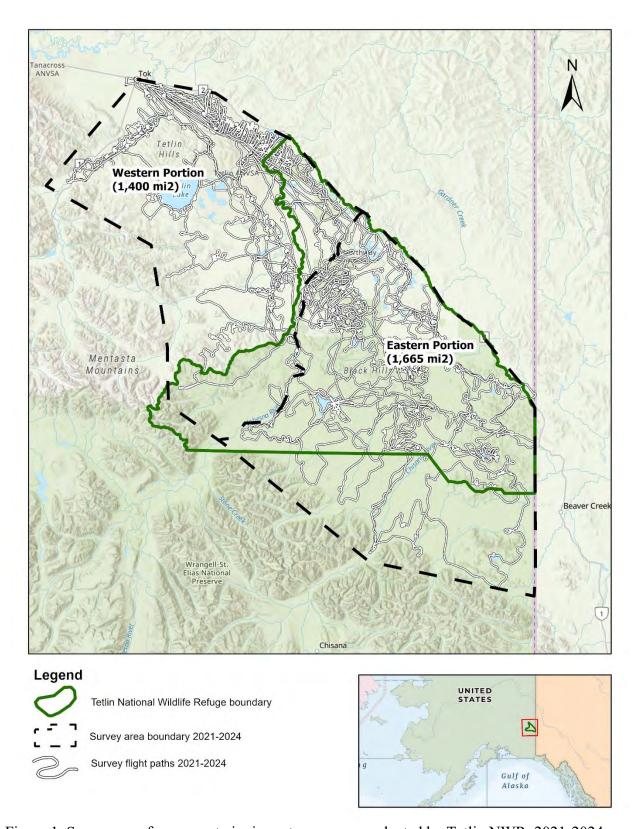


Figure 1. Survey area for moose twinning rate surveys conducted by Tetlin NWR, 2021-2024.

Results

We conducted 14 survey flights with two individual pilots and five unique observers over four years. Over the entire survey area, we observed 668 adult and yearling moose (Table 1). Of these, 109 were cows with one calf and 21 were cows with twins. The estimated twinning rate ranged from 0.03 (SE = 0.031) to 0.23 (SE = 0.075) across years (Figure 2). The estimated twinning rate was <0.20 in three of the four survey years, and the multiyear twinning rate was 0.16 (SE = 0.032; Table 2).

Based on our field observations, we suspected that the twinning rate may differ between habitats in the eastern versus western portions of the survey area. Subsequently, we compared data for moose observed east versus west of the Nabesna River.

We observed 330 adult and yearling moose east of the Nabesna River and 338 west of the river over the 4 survey years. Of those in the eastern portion, 32 were cows with calves whereas 98 cows with calves were west of the river. The multiyear twinning rate estimates for the eastern and western portions were 0.31 (SE = 0.082) and 0.11 (SE = 0.032), respectively (Table 2, Figure 3).

Table 1. Moose observed during spring twinning surveys for a portion of Alaska GMU 12 including the Tetlin National Wildlife Refuge, 2021-2024.

	,		<u> </u>					
		Cow moose						
Year	Bulls	Yearling	no calf	one calf	twins	triplets	Total ^a	
2021	58	18	66	25	6	0	173	
2022	109	18	86	29	7	0	246	
2023	46	5	40	31	1	0	123	
2024	58	2	35	24	7	0	126	
Totals	271	43	227	109	21	0	668	

^a Total adults and yearlings; does not include calves

The eastern and western portions of the twinning survey area correspond to known differences in moose density in the two population survey areas (Northwestern Unit 12 Survey Area vs. Southeastern Unit 12 Survey Area) that overlap our twinning survey area (Wells 2022). Moose numbers in the eastern portion that includes Tetlin NWR are characteristic of a low-density population with densities of 0.28 - 0.62 moose/mi² between 2000 and 2022 (Gasaway et al. 1992, Wells 2022, Carmello and Jamison 2023). The density of moose is generally greater in the western portion of the survey area with densities averaging just over 1.0 moose/mi² over the same period (Wells 2022). Our results suggest that the twinning rate for the moderate-density population in the western portion of the survey area may be lower than that for the low-density population in the eastern portion. The disproportionate number of observations in the western portion are largely driving the multiyear twinning rate for the overall survey area.

Twinning rates below 0.10 are considered indicators of nutritional stress and, along with other indices, may show that a given population has reached or exceeded carrying capacity (Boertje et al. 2007). Continued monitoring of the twinning rate in the western portion of the survey area, where twinning rates appear lower, is important to evaluate the long-term trend. Both the low- and moderate-density populations that occur within our survey area have remained relatively stable for the past two decades so we have not documented any association between the relatively low twinning rate and population changes. It is possible that the low twinning rates are a recent phenomenon and effects could become apparent future years; especially west of the Nabesna River.

Ideally, we could increase sample sizes to observations of 40 cows with calves (protocols employed by ADF&G) both east and west of the Nabesna River to better refine our estimates. However, locating even modest numbers of cows with calves in the eastern portion of our survey area often requires substantial flight time and survey cost. Mapping the distribution of the limited number of cows observed with twins suggested a potential gradient in twinning rate that increases from west to east. As we build a larger data set, we may be better able to evaluate the spatial distribution of the production of twins across the study area rather than using the simplified east versus west comparison.

Acknowledgements

Bryce Woodruff (Wildlife Biologist, Alaska Peninsula/Becharof NWR) organized and conducted the first survey in 2021. Jeff Wells (Assistant Area Biologist, ADF&G) provided insightful discussion on initial survey results and comments on earlier versions of this report. Leif Wilson and Jake Combs (40-Mile Air) piloted survey flights. Observers were Brent Jamison, Bryce Woodruff, Trent Gilmore (Student Conservation Association intern, Tetlin NWR), Marie Jamison (Wildlife Technician, ADF&G) and Matt Basye. Jared Laufenberg (Biometrician, USFWS) advised interpretation.

References

Boertje, R.D., K.A. Kellie, C.T. Seaton, M.A. Keech, D.D. Young, B.W. Dale, L.G. Adams, and A.R. Aderman. 2007. Ranking Alaska moose nutrition: signals to begin liberal antlerless harvests. Journal of Wildlife Management 71: 1494–1506

- Carmello, S.J., and B.E. Jamison. 2023. 2022 Fall Moose Population Survey, Game Management Unit 12, Southeastern Portion Including Tetlin National Wildlife Refuge. Unpublished report. U.S. Fish and Wildlife Service, Tok, Alaska. (https://ecos.fws.gov/ServCat/Reference/Profile/153878)
- Coady, J.W. 1974. Influence of snow on behavior of moose. Alaska Department of Fish and Game, Fairbanks, Alaska, USA.
- Cochran, W. 1977. Sampling techniques. John Wiley and Sons, New York, New York, USA.
- Collins, G.H., W.N. Johnson, and H.K. Timm. 2004. Moose browse surveys: Tetlin National Wildlife Refuge, Alaska. U.S. Fish and Wildlife Service. Tok, Alaska (https://ecos.fws.gov/ServCat/Reference/Profile/140886)
- Franzmann, A.W., and C.C. Schwartz. 1985. Moose twinning rates: A possible population condition assessment. Journal of Wildlife Management 49: 394-396.
- Gasaway, W. C., R. D. Boertje, D. V. Grangaard, D. G. Kelleyhouse, R. O. Stephenson, and D. G. Larsen. 1992. The role of predation in limiting moose at low densities in Alaska and Yukon and implications for conservation. Wildlife Monographs 120.
- Keech, M.A., R.T. Bowyer, J.M. Ver Hoef, R.D. Boertje, B.W. Dale, and T.R. Stephenson. 2000. Life-History Consequences of Maternal Condition in Alaskan Moose. The Journal of Wildlife Management 64:450-462. https://doi.org/10.2307/3803243.
- Wells, J.J. 2022. 2022 Northwestern Unit 12 moose population survey. Memorandum 28 December 2022. Alaska Department of Fish and Game, Tok, Alaska.
- Wells, J.J. 2023. 2023 Unit 20E moose twinning survey. Memorandum 13 June 2023. Alaska Department of Fish and Game, Tok, Alaska.

Suggested reference:

Jamison, B.E. 2024. Moose twinning rate estimates for portions of Alaska GMU 12 including Tetlin National Wildlife Refuge, 2021-2024. Unpublished report. U.S. Fish and Wildlife Service, Tok, Alaska.

U. S. Department of the Interior National Park Service

National Park Service Subsistence Resource Commission for Wrangell-St. Elias National Park

Charter

- 1. **Committee's Official Designation**. The Commission's official designation is the National Park Service Subsistence Resource Commission for Wrangell-St. Elias National Park (Commission).
- 2. **Authority.** The Commission is established in accordance with the Alaska National Interest Lands Conservation Act Title VIII, (16 U.S.C. §§ 3111-3126). The Commission is regulated by the Federal Advisory Committee Act (5 U.S.C. Ch. 10).
- 3. **Objectives and Scope of Activities.** As mandated by § 808 of Title VIII, the Commission will, on an annual basis, make recommendations to the Secretary of the Interior (Secretary) and the Governor of Alaska (Governor) on any changes in the subsistence hunting program or its implementation that the Commission deems necessary after consultation with appropriate local committees and regional advisory councils and after considering all relevant data and holding one or more additional hearings in the vicinity of the Park.
- 4. **Description of Duties.** The duties of the Commission are solely advisory, and are as stated in Paragraph 3, above.
- 5. **Agency or Official to Whom the Committee Reports.** The Commission reports to the Secretary through the Designated Federal Officer (DFO).
- 6. **Support.** The National Park Service will provide administrative and logistical support to the Commission.
- 7. **Estimated Annual Operating Costs and Staff Years.** The annual operating costs associated with supporting the Commission's functions are estimated to be \$95,000, including all direct and indirect expenses and .25 in Federal staff years support.
- 8. **Designated Federal Officer.** The DFO is the Superintendent, Wrangell St. Elias National Park and Preserve, National Park Service, who is a full-time Federal employee appointed in accordance with Agency procedures. The DFO will approve or call all Commission and subcommittee meetings, prepare and approve all meeting agendas, attend all Commission and subcommittee meetings, adjourn any meeting when the DFO determines adjournment to be in the public interest, and chair meetings when directed to do so by the Secretary.

- 9. **Estimated Number and Frequency of Meetings.** The Commission will meet approximately twice a year, and at such time as designated by the DFO.
- 10. **Duration.** Continuing.
- 11. **Termination.** The Commission will not meet or take any action without a valid, current charter. Although the provisions of the Federal Advisory Committee Act requiring a biennial rechartering are inapplicable to the Commission pursuant to 54 U.S.C. § 100906(b)(c), the Department of the Interior will conduct a biennial review of the Commission to determine if its goals and objectives have been fulfilled
- 12. **Membership and Designation.** The Commission will be composed of nine representative members, as follows:
 - a. three members appointed by the Secretary of the Interior;
 - b. three members appointed by the Governor of the State of Alaska;
 - c. three members appointed by the Regional Advisory Council (Eastern Interior, Southcentral, and Southwest), established pursuant to § 805 of Title VIII, which has jurisdiction within the area in which the Park is located. Each of the three members shall be a member of either the regional advisory council or a local advisory committee within the Region and also engage in subsistence uses within the Park.

Members will be appointed for 3-year terms. A vacancy on the Commission will be filled in the same manner in which the original appointment was made. Members serve at the discretion of the appointing authority.

Each appointing authority (i.e., Secretary, Governor, or the Eastern Interior, Southcentral and Southwest Regional Advisory Councils) may appoint an alternate representative. Alternate members will have experience and/or expertise similar to that of the primary members.

Members of the Commission and its subcommittee members will serve without compensation. However, while away from their homes or regular places of business, Commission and subcommittee members engaged in Commission or subcommittee business, approved by the DFO, may be allowed travel expenses, including per diem in lieu of subsistence, in the same manner as persons employed intermittently in Government service under section 5 U.S.C § 5703.

13. **Ethics Responsibilities of Members.** No Commission or subcommittee member will participate in any Commission or subcommittee deliberations or votes relating to a specific party matter before the Department of the Interior or its bureaus and offices including a lease, license, permit, contract, claim, agreement, or related litigation in which the member or the entity the member represents has a direct financial interest.

- 14. **Subcommittees.** Subject to the DFO's approval, subcommittees may be formed for the purposes of compiling information or conducting research. However, such subcommittees must act only under the direction of the DFO and must report their recommendations to the full Commission for consideration. Subcommittees must not provide advice or work products directly to the Agency. Subcommittees will meet as necessary to accomplish their assignments, subject to the approval of the DFO and the availability of resources.
- 15. **Recordkeeping.** The records of the Commission, and formally and informally established subcommittees of the Commission, shall be handled in accordance with General Records Schedule 6.2, and other approved Agency records disposition schedules. These records shall be available for public inspection and copying, subject to the Freedom of Information Act, 5 U.S.C. § 552.

Deb Haaland	JUL 2 7 2023
Secretary of the Interior	Date Signed

Date Filed

Guide for Members Serving on Department of the Interior Federal Advisory Committees

OVERVIEW OF FEDERAL ADVISORY COMMITTEES AT THE DEPARTMENT OF THE INTERIOR

Federal advisory committees are an important tool that the Department of the Interior (DOI) uses to receive advice and recommendations from DOI's diverse partners and stakeholders. The Department manages 85 advisory committees pursuant to the Federal Advisory Committee Act that are integral to advancing the agency's key priorities and carrying out its mission to protect and manage the Nation's natural resources and cultural heritage; provide scientific and other information about those resources; and honor its trust responsibilities or special commitments to American Indians, Alaska Natives, Native Hawaiians, and affiliated Island Communities. In 2023, DOI held 120 committee meetings with the participation of over 1000 members representing the interests of a wide variety of communities, including the public, science and technology, industry, academia, nonprofit organizations, recreation, grazing, fire management, Tribes, among others.

FEDERAL ADVISORY COMMITTEE ACT

The Federal Advisory Committee Act (5 U.S.C. Ch. 10) was enacted in 1972 to ensure that the public has knowledge of and an opportunity to participate in meetings between Federal agencies and groups that the agency has either established or manages and controls for the purpose of obtaining group advice and recommendations regarding the agency's operations or activities. The Act formalized a process for establishing, operating, overseeing, and terminating advisory committees and created the Committee Management Secretariat in the General Services Administration to monitor compliance with the Act.

The Federal Advisory Committee Act fosters transparency and accountability by providing public access to advisory committee deliberations and minimizing the influence of special interests through balanced committee membership. In some instances, advisory committees may provide the Federal Government an opportunity to create a publicly accessible and accountable forum for discussing potentially controversial topics.

Federal advisory committees are established by one of four authorities:

- Required by Statute (non-discretionary) By law where the Congress establishes an advisory committee or specifically directs the President or an agency to establish a committee.
- **Authorized by the President** (non-discretionary) By Executive order of the President or other Presidential directive to establish a committee.
- Authorized by Statute and established at Agency Discretion (discretionary) By law where the Congress authorizes, but does not direct, the President or an agency to establish a committee.
- **Established at Agency Discretion** (discretionary) By an agency under general authority in Title 5 of the United States Code or under other general agency-authorizing statutes.

Today, across the Federal Government, about 1000 advisory committees with more than 60,000 members advise the President and the Executive Branch on a wide variety of issues.

YOUR RESPONSIBILITIES AS A MEMBER

As a member of a Federal advisory committee your responsibilities are to:

- Attend and participate in committee meetings.
- Review materials provided in advance of meetings.

- Be willing to engage in an exchange of views and perspectives and help the DOI fulfill its various missions by providing thoughtful advice and recommendations.
- Between meetings, continue working on individual committee assignments to be fully prepared for the next public meeting.
- Comply with the applicable ethics in government laws, including those related to conflict of interest and financial reporting.
- Cooperate with your committee's Designated Federal Officer regarding the rules for participating in meetings.
- Serve on the committee for your appointed term, or if you find you cannot serve, resign from the committee.
- Refrain from publicly presenting your individual views as those of the Committee as a whole.
- Complete required administrative tasks within the timeframes set by the Designated Federal Officer, including, but not limited to, responding to polls sent out to set meeting dates, providing documentation to obtain reimbursement for travel and other expenses, completing ethics paperwork by the deadline, etc.

THREE DIFFERENT TYPES OF APPOINTMENTS TO FEDERAL ADVISORY COMMITTEES

Your functions as a committee member may differ depending on the type of appointment under which you were invited to serve. Below are the three types of designations for Federal advisory committee members.

- Representative members are selected to represent the point of view of a specified group. Representative
 members may represent groups or organizations, such as academia, recreation, Tribes, the public, and other
 stakeholders having an interest in matters before the committee.
- Special Government Employee (SGE) members are appointed to provide the agency with their own best independent judgment based on their individual expertise. As a SGE member, you are speaking for yourself as an expert in your field.
- Regular Government Employee (RGE) members are individuals employed by the Federal Government. As an RGE member, you are providing your best judgment based on your professional expertise, consistent with your agency's policies.

SOME REQUIREMENTS FOR HOLDING COMMITTEE MEETINGS

- Each committee must have a Designated Federal Officer to manage the committee and attend each committee
 and subcommittee meeting. Committee meetings may not be conducted in the absence of the Designated
 Federal Officer.
- Committee meetings must be announced in advance and open to the public. The public will be provided an opportunity to provide comments, in writing and/or orally, to the committee. Designated Federal Officers will also ensure fulfillment of any reasonable accommodation requests from committee members and others who attend the meetings.
- All committee documents provided to or prepared by the committee, including reports, transcripts, drafts, minutes, working papers, and agendas must be made available for public inspection and copying. All committee documents are agency records.
- The committee must be fairly balanced in terms of the points of view represented and the functions to be performed.
- Committees can not meet or take any action without a valid, current charter. Charters are renewed on a biennial basis unless specified otherwise through legislation.

This guide is not intended to be exhaustive and is provided for informational purposes only. If you would like additional information on DOI's Federal Advisory Committees, please visit DOI's Committee Management website at https://www.doi.gov/execsec/faca or contact your Designated Federal Officer.



United States Department of the Interior

NATIONAL PARK SERVICE 1849 C Street, NW Washington, DC 20240

Susan L. Entsminger, Chair Wrangell-St. Elias National Park Subsistence Resource Commission P.O. Box 439 Mile 106.8 Richardson Hwy. Copper Center, AK 99573

Dear Chair Entsminger and Commission Members:

Thank you for your November 1, 2023, letter to Secretary Haaland relaying the concerns of the Wrangell-St. Elias National Park Subsistence Resource Commission (SRC) regarding recent declines in area caribou and sheep populations as well as high water events that hindered subsistence communities from harvesting salmon on the Copper River. I do deeply understand your concerns for food security and the vital importance of continuing cultural, customary, and traditional activities that are central to a subsistence way of life.

These issues are also paramount for the National Park Service and the Federal Subsistence Board (Board). I traveled to Alaska last summer to visit several parks, including Wrangell-St. Elias. I had an opportunity to meet with staff, visit important subsistence places, and meet with local people and Tribal representatives in the region to hear about subsistence concerns and opportunities for collaboration to address these issues. Secretary Haaland was also in Alaska this past fall and met with the Board to hear their concerns and efforts to address subsistence food security, effects of changing climate, and need for additional funding for fish and wildlife monitoring and rural community engagement in the Federal Subsistence management process. We are committed to supporting these efforts and encourage all agencies involved to collaborate with local communities to address these critical needs.

The National Park Service Alaska Regional Director, Sarah Creachbaum, has made subsistence and food security the top priority for the region. This has resulted in securing approximately \$6.2M of Inflation Reduction Act funding for a project entitled "Mitigate Climate Change Impacts and Improve Subsistence Food Security via Co-Stewardship Arrangements." Project funding will support activities designed to mitigate climate change impacts on subsistence users and enhance food security through (1) co-stewardship arrangements with Tribes and local communities, and (2) research and monitoring to better understand the dynamics of harvested wildlife and fish populations, focusing primarily on caribou, moose, and Copper River salmon. Hopefully this funding will help to begin to address food security concerns and support collaborative work with area Tribes and communities.

I thank you and all the SRC members for your dedicated volunteer service on behalf of Wrangell-St. Elias National Park and subsistence communities and resources in the region.

Sincerely,

Charles F. Sams III Director

cc: Sarah S. Creachbaum, Alaska Regional Director, National Park Service Ben Bobowski, Superintendent, Wrangell-St. Elias National Park and Preserve Federal Subsistence Board



United States Department of the Interior

NATIONAL PARK SERVICE 1849 C Street, NW Washington, DC 20240

Sue Entsminger, Chair Wrangell-St. Elias National Park Subsistence Resource Commission P.O. Box 439 Mile 106.8 Richardson Highway Copper Center, AK 99573

Dear Chair Entsminger:

Thank you for your April 15, 2024, letter to Secretary Haaland, highlighting actions taken by the Wrangell-St. Elias National Park Subsistence Resource Commission. The actions taken include developing comments regarding a proposal to expand the Federal Subsistence Board membership, hearing recommendations on proposed changes to the Superintendent's Compendium, and developing special action requests to the Federal Subsistence Board.

We appreciate you continuing to share your valuable perspective as a commission representing the interests of rural subsistence users in Alaska.

Sincerely,

Alma Ripps Chief, Office of Policy National Park Service