



## United States Department of the Interior

NATIONAL PARK SERVICE  
Wrangell-St. Elias National Park & Preserve  
Mile 106.8 Richardson Hwy. P.O. Box 439  
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<http://www.nps.gov/wrst>



### WRANGELL-ST. ELIAS NATIONAL PARK AND PRESERVE SUBSISTENCE AND ANTHROPOLOGY REPORT

Fall 2022

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#### **Federal subsistence hunting permits issued for Wrangell-St. Elias in 2022**

As of September 11, park and Tetlin National Wildlife Refuge staff had issued a total of 174 federal subsistence hunting permits for moose, goat, and sheep for Wrangell-St. Elias lands in Units 11 and 12 (see Table 1). As of this date, park staff had also issued 23 Unit 13 moose permits and 58 Unit 13 caribou permits at the Slana Ranger Station and numerous joint state/federal permits (RM291) for the moose hunt for portions of Units 11 and 12 in the northern part of the park.

**What is next?** Harvest information will be provided in the Spring 2023 report.

#### **Upper Copper River communities to be surveyed about subsistence harvests**

Chistochina and Mentasta residents will be surveyed in early 2023 about their harvest and use of wild fish, wildlife and plant resources, and Slana and Nabesna Road residents will be surveyed in early 2024. These surveys are a cooperative project in collaboration with the Alaska Department of Fish and Game and the Ahtna Intertribal Resource Commission.

**Why this matters:** Concern has been expressed about whether up-river communities are meeting their subsistence needs, especially for salmon.

#### **New staff join the Wrangell-St. Elias subsistence team**

Kyle Cutting has been hired as the park's new wildlife biologist to replace Judy Putera, who retired in May. Amber Cohen has been hired as an additional cultural anthropologist to help support the park's subsistence, ethnography, and Alaska Native relations programs.

**Table 1. Federal Subsistence Registration Permits in Wrangell-St. Elias NPP, 2012-2022**

**Unit 11 Goat (FG1101)**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022*
<b>Permits Issued</b>	42	30	31	29	22	26	30	27	27	20	8
<b>Individuals Hunting</b>	6	7	10	6	4	3	8	8	7	2	
<b>Animals Harvested</b>	0	0	0	0	0	0	0	1	0	0	
<b>Success Rate (%)</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5	0.0	0.0	

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

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022*
<b>Permits Issued</b>	189	146	123	128	138	132	144	107	156	140	124
<b>Individuals Hunting</b>	75	78	70	70	75	72	85	45	70	71	
<b>Animals Harvested</b>	9	12	10	13	16	13	12	10	15	11	
<b>Success Rate (%)</b>	12.0	15.4	14.3	18.6	21.3	18.1	14.1	22.2	21.4	15.5	

**Unit 11 Moose -- Winter Hunt in southern part of unit (FM1107) (Began in 2014)**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022*
<b>Permits Issued</b>	n/a	n/a	32	17	20	14	11	8	8	7	5
<b>Individuals Hunting</b>	n/a	n/a	3	3	4	4	2	2	3	2	
<b>Animals Harvested</b>	n/a	n/a	0	0	1	0	0	0	1	0	
<b>Success Rate (%)</b>	n/a	n/a	0.0	0.0	25.0	0.0	0.0	0.0	33.3	0.0	

**Unit 11 Elder Sheep (FS1104)**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022*
<b>Permits Issued</b>	32	20	25	25	32	34	38	34	38	26	25
<b>Individuals Hunting</b>	11	5	10	8	12	13	18	14	14	12	
<b>Animals Harvested</b>	1	0	1	3	3	4	1	1	1	3	
<b>Success Rate (%)</b>	9.1	0.0	10.0	37.5	25.0	30.8	5.6	7.1	7.1	27.3	

**Unit 11 Elder/Junior Sheep (FS1103)**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022*
<b>Permits Issued</b>	1	0	0	0	1	2	1	0	1	1	1
<b>Individuals Hunting</b>	0	-	-	-	1	2	0	-	0	0	
<b>Animals Harvested</b>	-	-	-	-	0	0	-	-	-	-	
<b>Success Rate (%)</b>	-	-	-	-	0.0	0.0	-	-	-	-	

**Unit 12 Caribou -- Chisana (FC1205) – Closed in 2022 due to conservation concerns**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Permits Issued</b>	9	9	11	11	8	8	6	4	7	5	n/a
<b>Individuals Hunting</b>	8	7	8	7	8	3	3	3	4	1	n/a
<b>Animals Harvested</b>	2	3	2	0	1	0	2	1	3	0	n/a
<b>Success Rate (%)</b>	25.0	42.9	25.0	0.0	12.5	0.0	66.7	33.3	75.0	0.0	n/a

**Table 1. Federal Subsistence Registration Permits in Wrangell-St. Elias NPP, 2012-2022 (cont.)**

**Unit 12 Elder Sheep (FS1201)**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022*
<b>Permits Issued</b>	13	9	9	7	11	12	14	14	12	13	9
<b>Individuals Hunting</b>	3	3	5	3	6	4	8	6	4	6	
<b>Animals Harvested</b>	0	0	1	0	1	1	0	0	1	0	
<b>Success Rate (%)</b>	0.0	0.0	20.0	0.0	16.7	25.0	0.0	0.0	25.0	0.0	

**Unit 12 Elder/Junior Sheep (FS1204)**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022*
<b>Permits Issued</b>	1	0	0	0	0	0	0	0	0	0	1
<b>Individuals Hunting</b>	0	-	-	-	-	-	-	-	-	-	
<b>Animals Harvested</b>	-	-	-	-	-	-	-	-	-	-	
<b>Success Rate (%)</b>	-	-	-	-	-	-	-	-	-	-	

Source: Federal Subsistence Permit Database.

\* 2022 data are preliminary as of 9/11/2022.

Notes: 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.

**Ahtna Ethnographic Overview and Assessment (EOA):** This baseline cultural anthropology study includes an annotated inventory of ethnographic and related materials relevant to the Ahtna Athabascans; a narrative synopsis of our current understanding of these materials, with a focus on connections to Wrangell-St. Elias; and an analysis of data gaps and additional research needs. It is being carried out through a cooperative agreement with the Ahtna Intertribal Resource Commission and is scheduled for completion in fall 2023.

**Documenting Traditional Ecological Knowledge about Historic Dynamics of Caribou Herds Associated with Wrangell-St. Elias:** This project includes a literature review/data mining regarding traditional ecological knowledge (TEK) and historic information (e.g., seasonal movement patterns; and herd sizes, interactions, and habitat relations) of the three caribou herds (Chisana, Mentasta and Nelchina) that spend time in Wrangell-St. Elias as well along with new traditional knowledge interviews about caribou with knowledgeable long-term residents. Topics covered in the new interviews include long-term knowledge about seasonal movement patterns, herd sizes, and observations regarding caribou in relation to the larger ecosystem and the other caribou herds. The information will be summarized in a report designed to inform management decisions about caribou. This project is being carried out through a cooperative agreement with the Ahtna Intertribal Resource Commission and is scheduled for completion in late 2023.

**Local Knowledge of Winter Environmental Conditions and their Impacts on Subsistence**

**Access:** This project documents local knowledge of winter environmental conditions through interviews with trappers and other Copper Basin residents who are out on the landscape during the winter about environmental conditions (e.g., temperatures, snow and ice conditions), how conditions have changed over their lifetimes/careers, other traditional ecological knowledge about winter environmental conditions, and the way in which these conditions have impacted access to subsistence resources. The information gathered during the interviews is being summarized in a technical report. This project is being carried out through a cooperative agreement with the Ahtna Intertribal Resource Commission and is scheduled for completion in late 2022 or early 2023.

**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 peer-reviewed journal publication, interpretive products 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 in late 2023.

Report updated 9/12/2022



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## WRANGELL-ST. ELIAS NATIONAL PARK AND PRESERVE CARIBOU UPDATE

October 2022

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### SUMMARY OF KEY UPDATES

- **Chisana caribou herd**
  - **Population estimate will be conducted in October** by interagency working group including the Alaska Department of Fish & Game, the Yukon Department of Environment, and Wrangell-St. Elias, with additional support from Gates of the Arctic.
- **Mentasta caribou herd**
  - Gates of the Arctic and Wrangell-St. Elias collaborated on **project in September to capture and collar Mentasta herd caribou and estimate sex- and age-ratios for the herd**. Results will be provided in an oral report.

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### Chisana Caribou Herd

- As of early September, we had 44 active collars on adult, female caribou in the Chisana caribou herd, 27 of which are GPS collars. Based on the GPS data, the herd at that time was widely distributed in both Alaska and Canada across an area slightly larger than the previous two years at the same time of year. We had two mortalities of collared caribou during the previous year (mortality rate of 4%). NPS is actively collaborating with the Chisana Herd Working Group, composed of biologists from NPS, ADF&G, the U.S. Fish and Wildlife Service (Tetlin National Wildlife Refuge), and the Yukon Department of Environment. The Federal hunt for 2022 was not opened this year due to the herd not achieving the composition goals identified in the Chisana Herd Management Plan. Specifically, the target is a 3-year rolling average of 15 calves per 100

cows and the most recent estimate for the herd was 14 calves per 100 cows. The working group is actively working together to update the management plan, as well as working together to conduct a population estimate in early October this year.

## **Mentasta Caribou Herd**

- As of early September, we had 3 active collars in the herd, with plans to deploy up to 10 GPS collars on adult, female caribou in mid-September. We also plan to conduct a composition count at that time. Results of these efforts will be provided in an oral report to the Wrangell-St. Elias Subsistence Resource Commission (SRC) during the SRC meeting in early October. The last fall composition count was in conducted in 2021 and found a bull-to-cow ratio of 78:100 and a calf-to-cow ratio of 14:100.