

DIVISION OF SUBSISTENCE



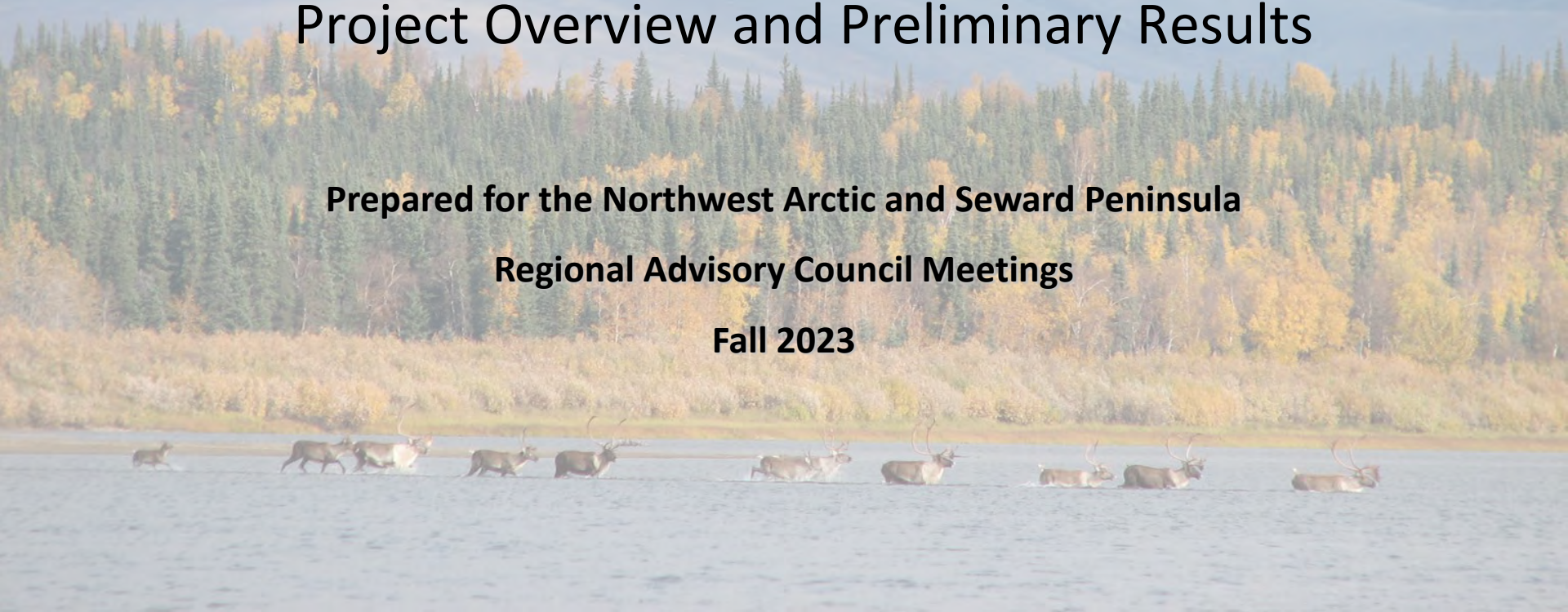
WACH Harvest Assessment Program

Project Overview and Preliminary Results

Prepared for the Northwest Arctic and Seward Peninsula

Regional Advisory Council Meetings

Fall 2023





Western Arctic Caribou Herd Harvest Assessment

- **Funding Agency:** US Fish and Wildlife Service
 - Research partnership among 8 study communities, ADF&G Subsistence, ADF&G Department of Wildlife Conservation
- **Purpose:** Conduct household large mammal harvest surveys (caribou focus) in 8 communities within the historic range of the Western Arctic caribou herd (WACH)
- **Focus area:** Communities of Golovin, Selawik, Shungnak, White Mountain, Shishmaref, Noatak, Deering and Kobuk
- **Methods:**
 - Household Surveys
 - Ethnographic interviews with mapping component
 - Participant observation



Morgan Urquia, ADF&G

Project Timeline

- Project Start 03/2019, project end 06/2024
- 4 years of surveys (2 years in each community during alternate years, 4 communities surveyed per year)
- Fieldwork for spring 2020 postponed due to COVID
- Surveys in Shishmaref, Deering, Noatak and Kobuk conducted remotely in 2021
- Standard door-to-door in-person surveys resumed in Golovin, Selawik, Shungnak, and White Mountain in 2022
- Last year of surveys conducted in Shishmaref, Deering, Noatak, and Kobuk in spring 2023
- Report writing in progress, community reviews scheduled for end of 2023/early 2024.

Harvest and Use of Caribou

Study Year April 2018 to March 2019

	% households using	% households harvesting	# caribou harvested	Edible lbs./person
Golovin	65%	10%	40	48lbs
White Mountain	64%	12%	27	19lbs
Shungnak	98%	46%	365	208lbs
Selawik	96%	29%	252	50lbs

Study Year April 2020 to March 2021

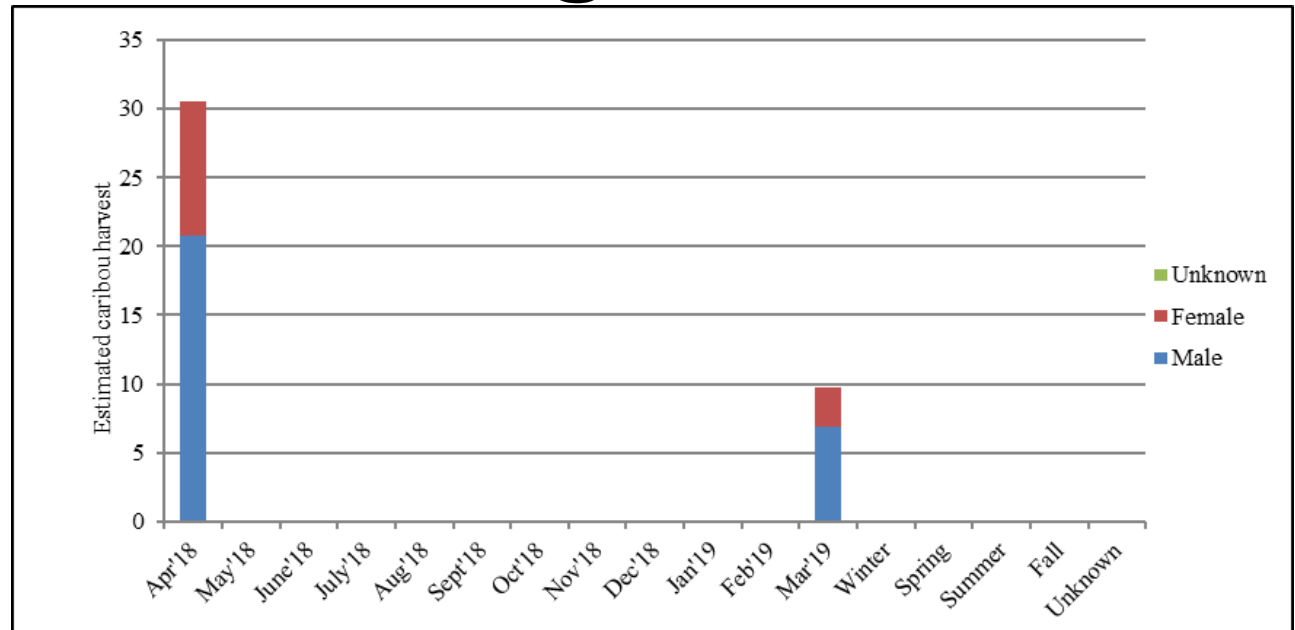
	% households using	% households harvesting	# caribou harvested	Edible lbs./person
Shishmaref	98%	55%	346	68lbs
Deering	84%	36%	81	62lbs
Noatak	98%	44%	288	70lbs
Kobuk	86%	42%	323	236lbs

Study Year April 2021 to March 2022

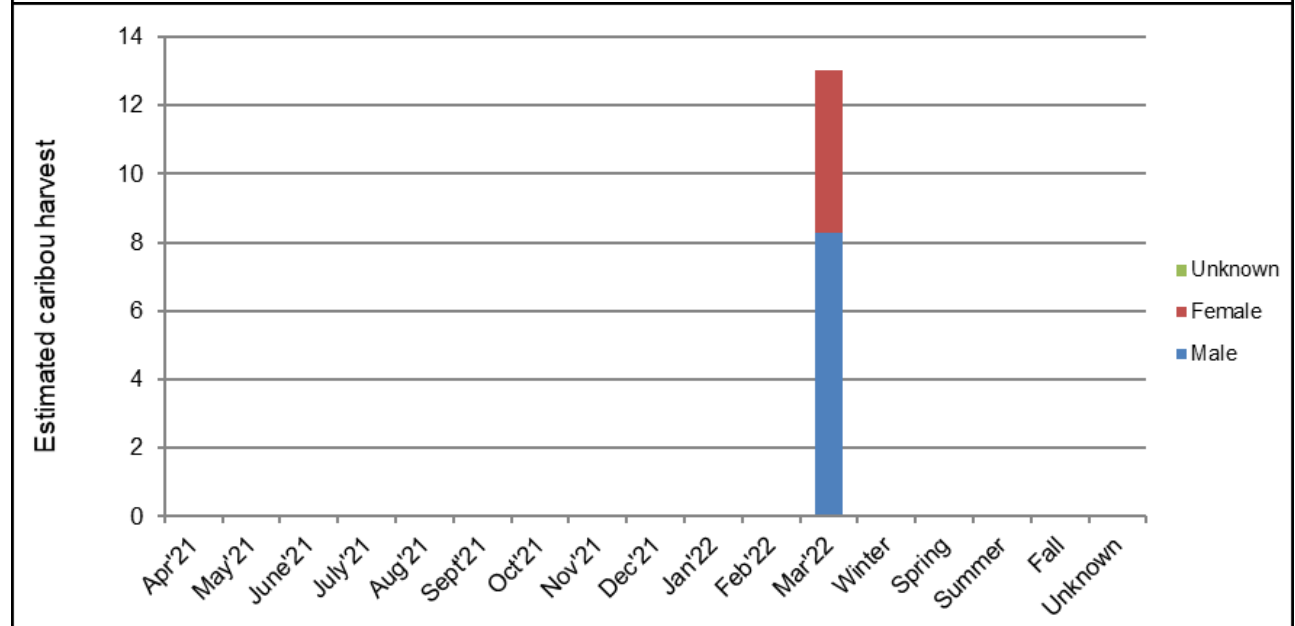
	% households using	% households harvesting	# caribou harvested	Edible lbs./person
Golovin	82%	5%	13	12lbs
White Mountain	49%	7%	15	10lbs
Shungnak	98%	46%	405	201lbs
Selawik	94%	35%	278	52lbs

Harvest Timing Golovin

2018-2019

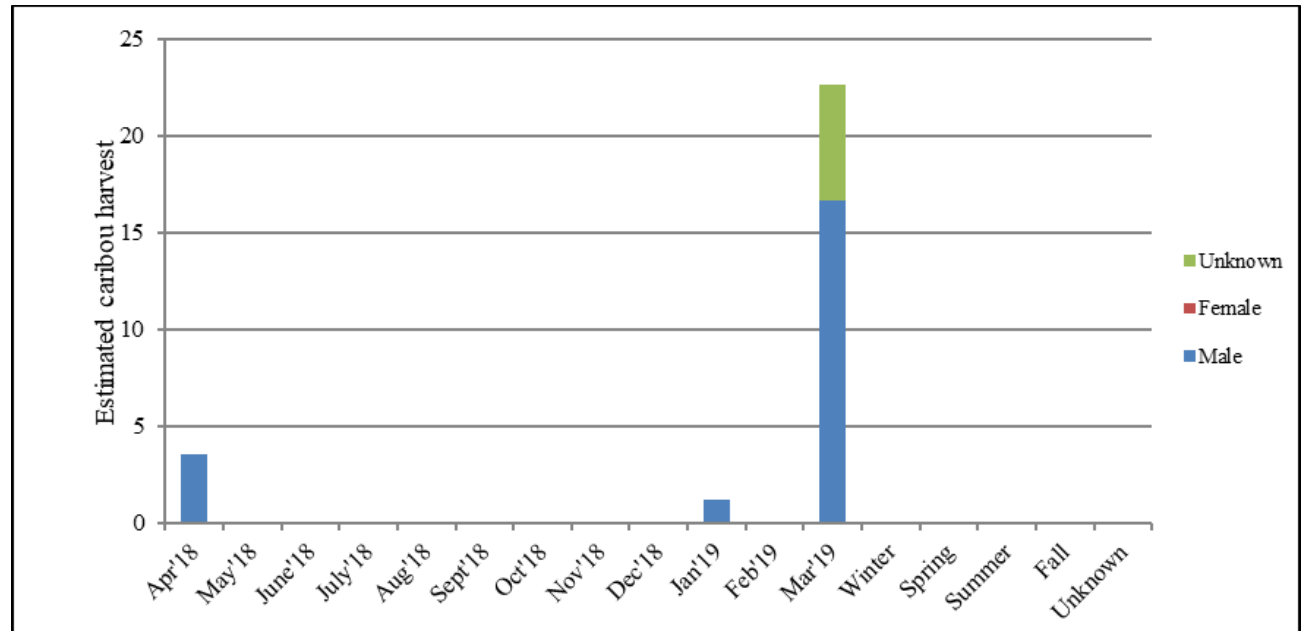


2021-2022

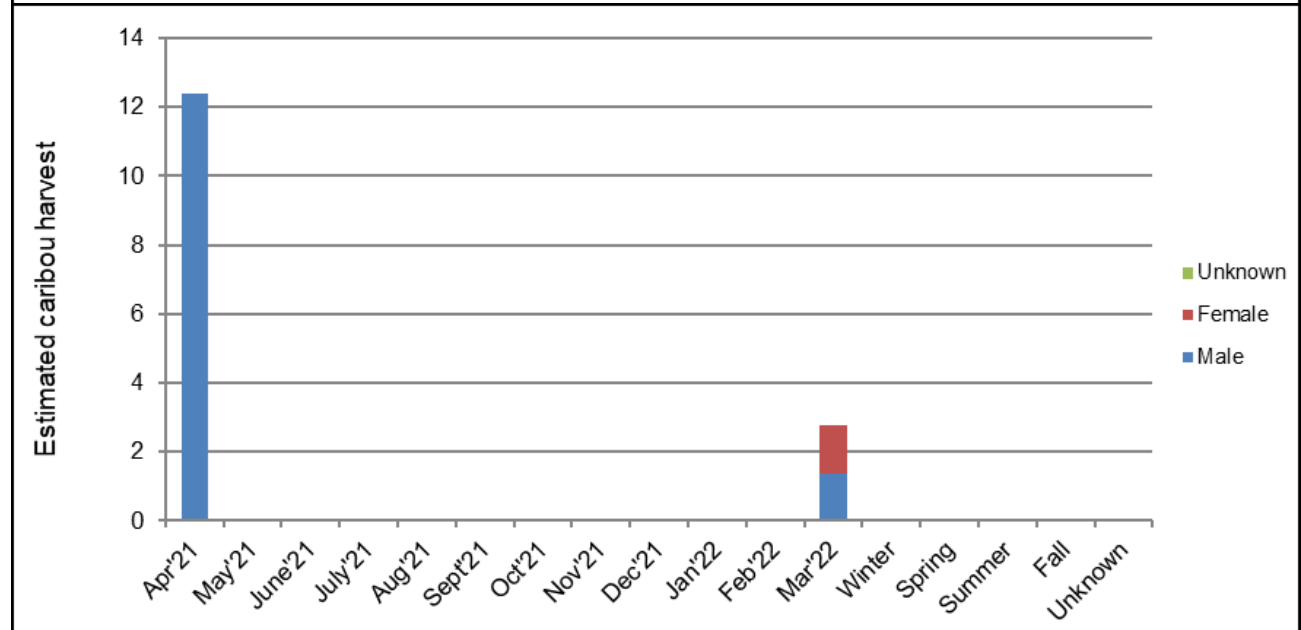


Harvest Timing White Mountain

2018-2019

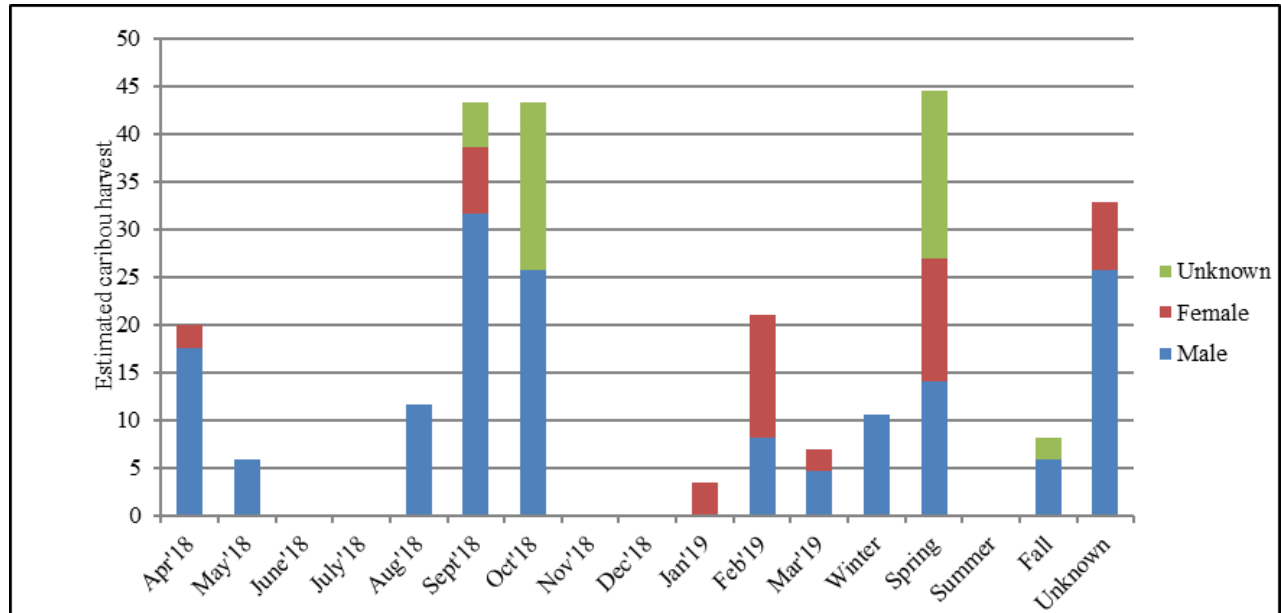


2021-2022

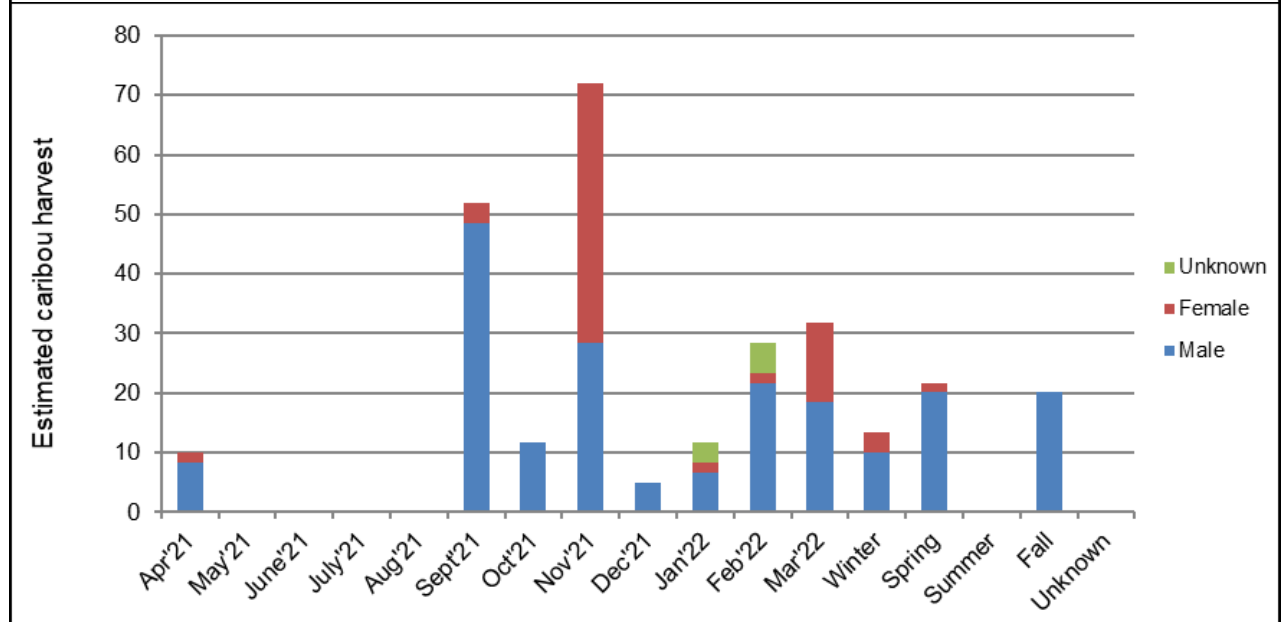


Harvest Timing Selawik

2018-2019

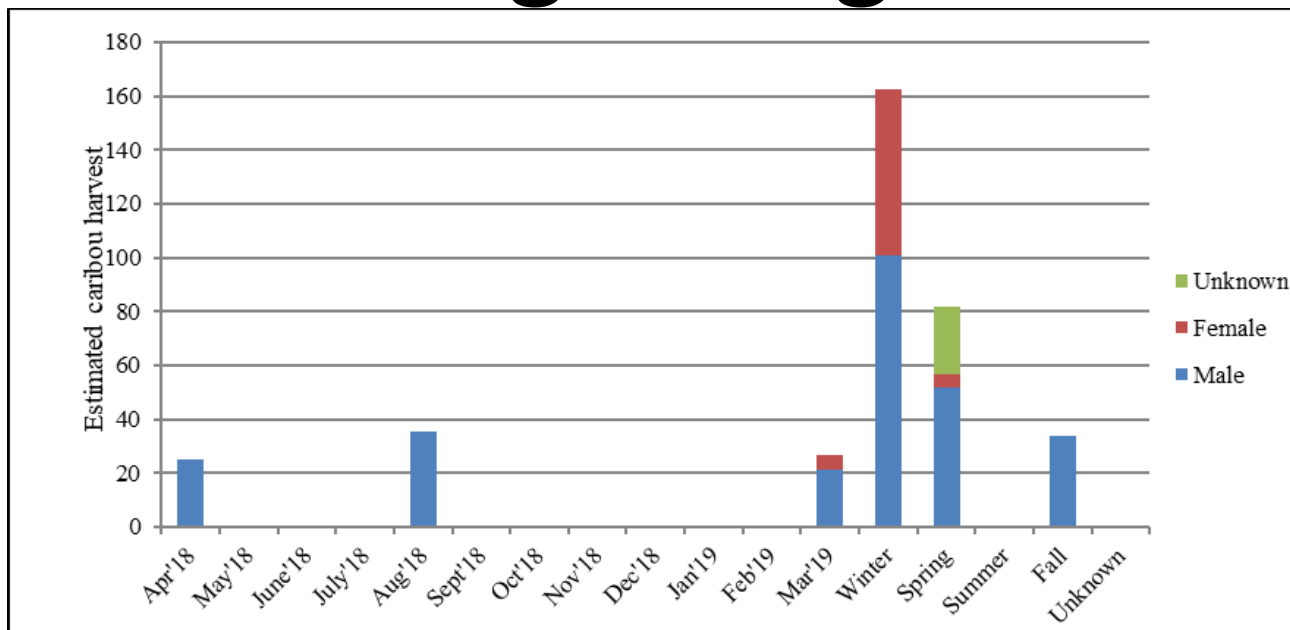


2021-2022

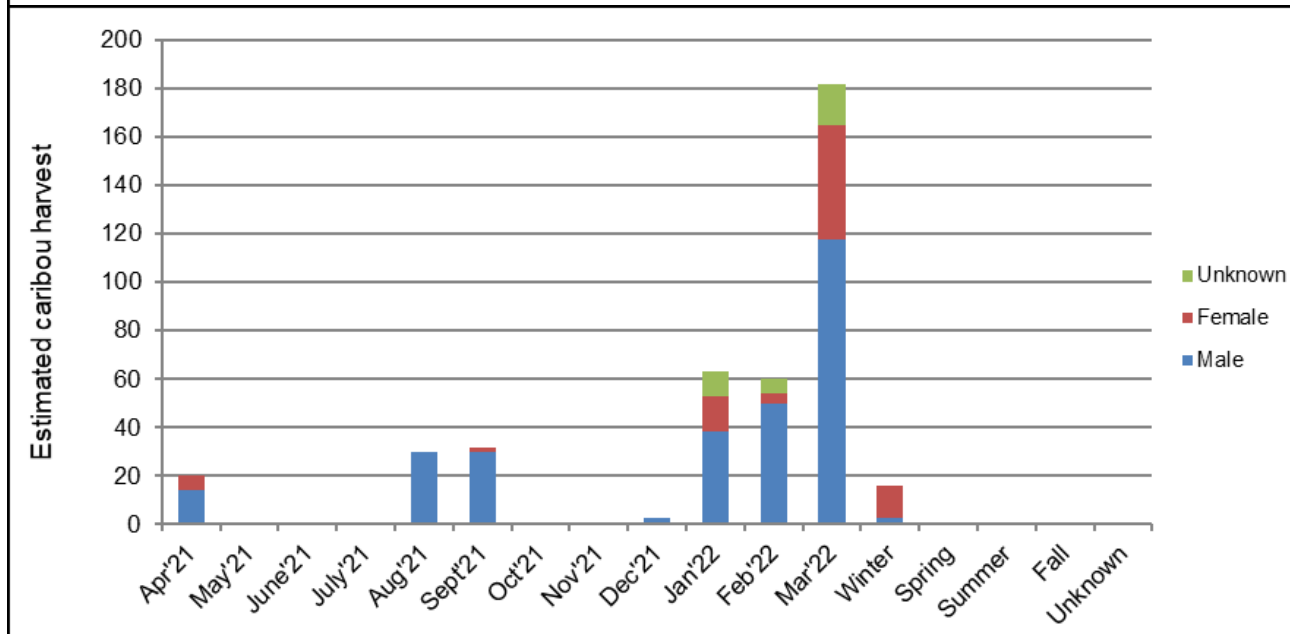


Harvest Timing Shungnak

2018-2019

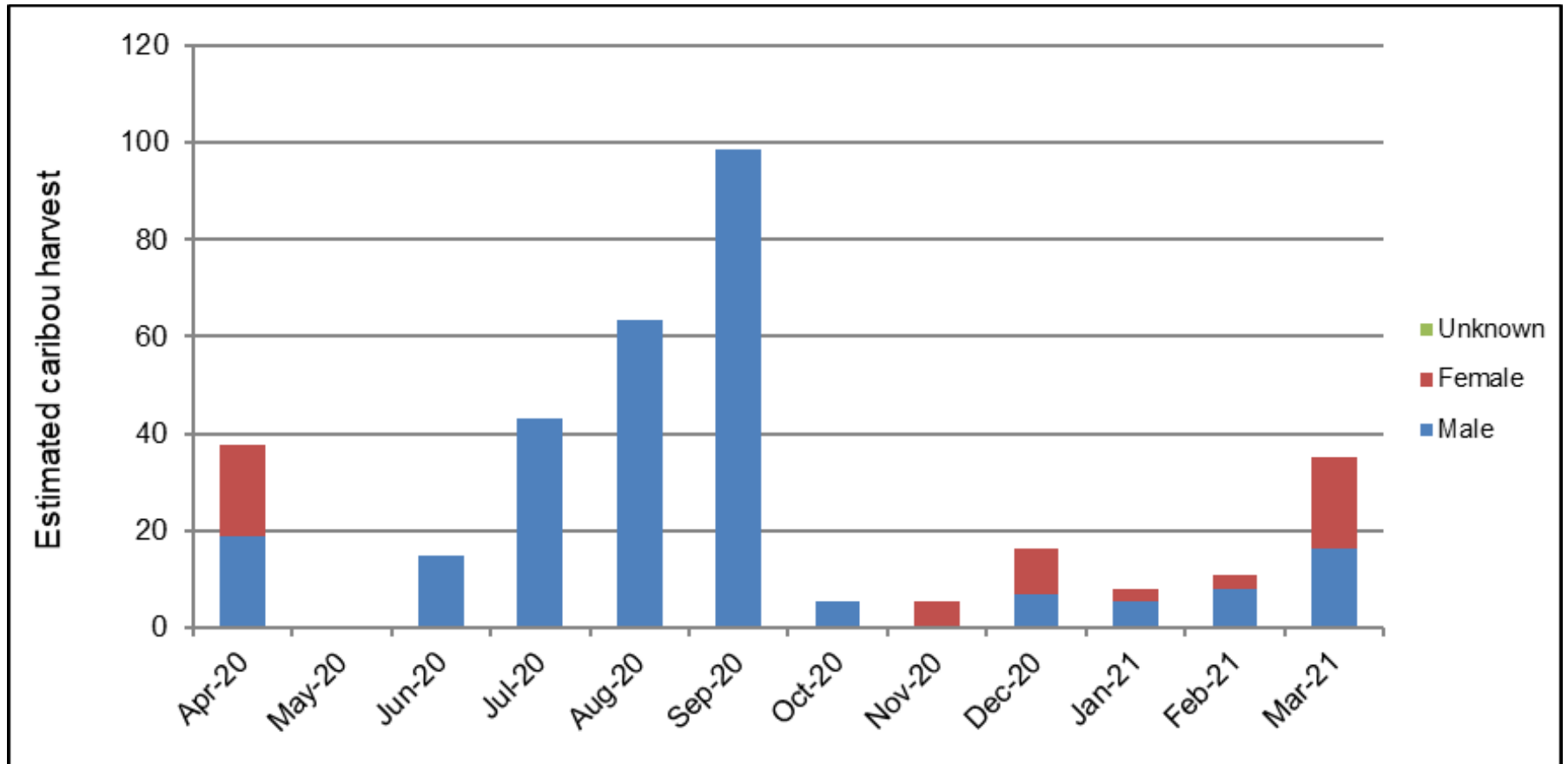


2021-2022



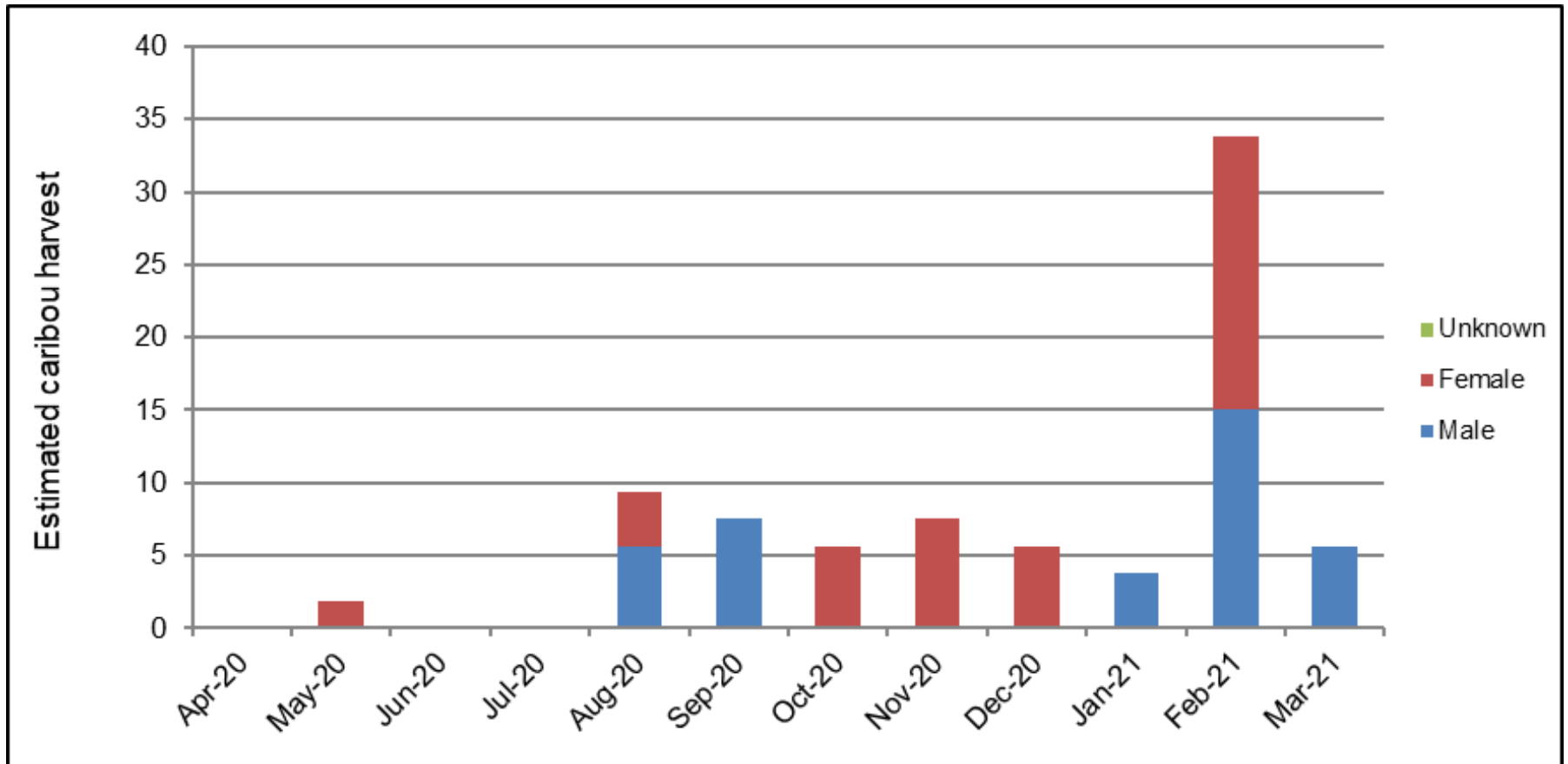
Harvest Timing Shishmaref

2020-2021



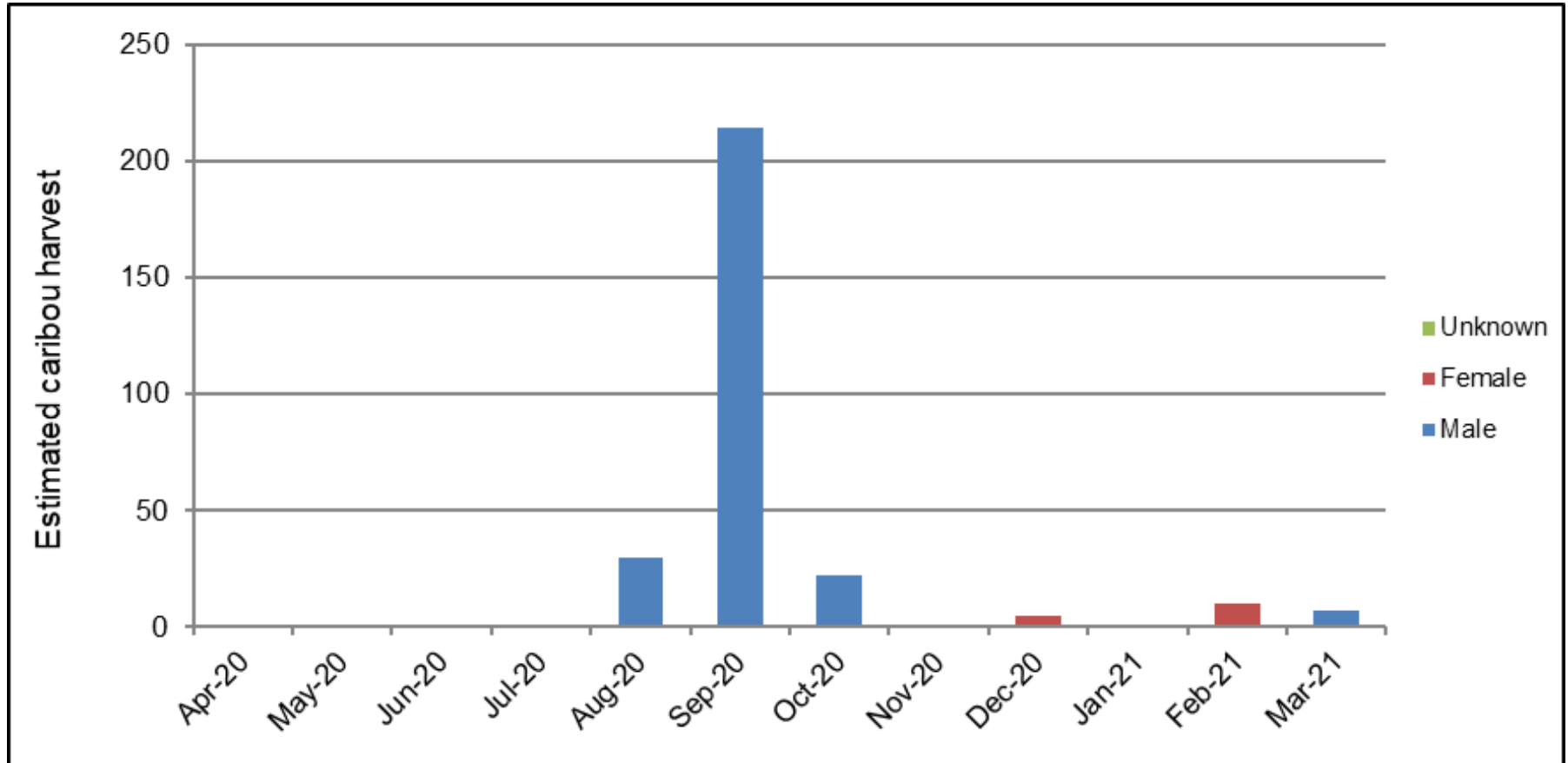
Harvest Timing Deering

2020-2021



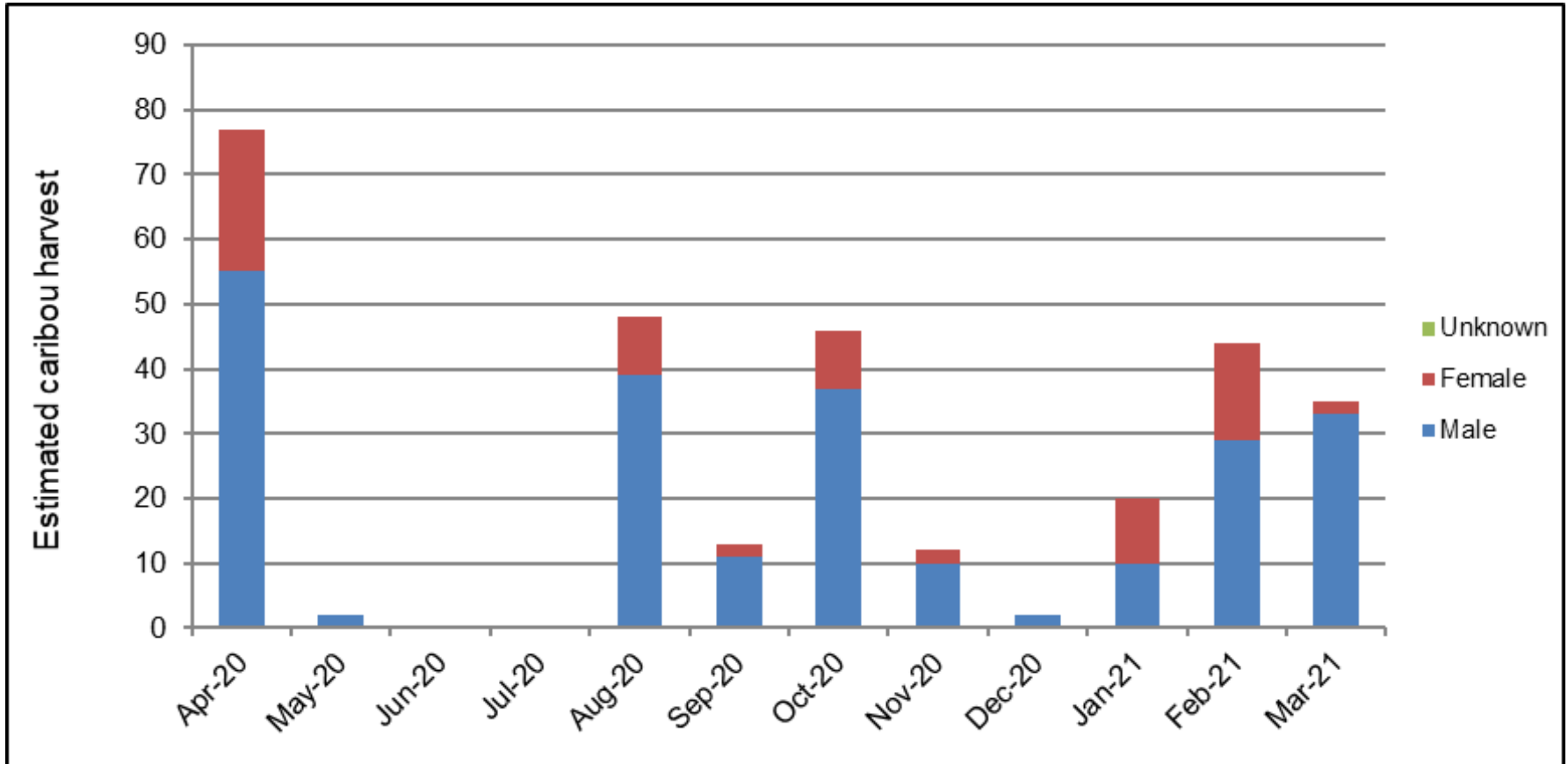
Harvest Timing Noatak

2020-2021



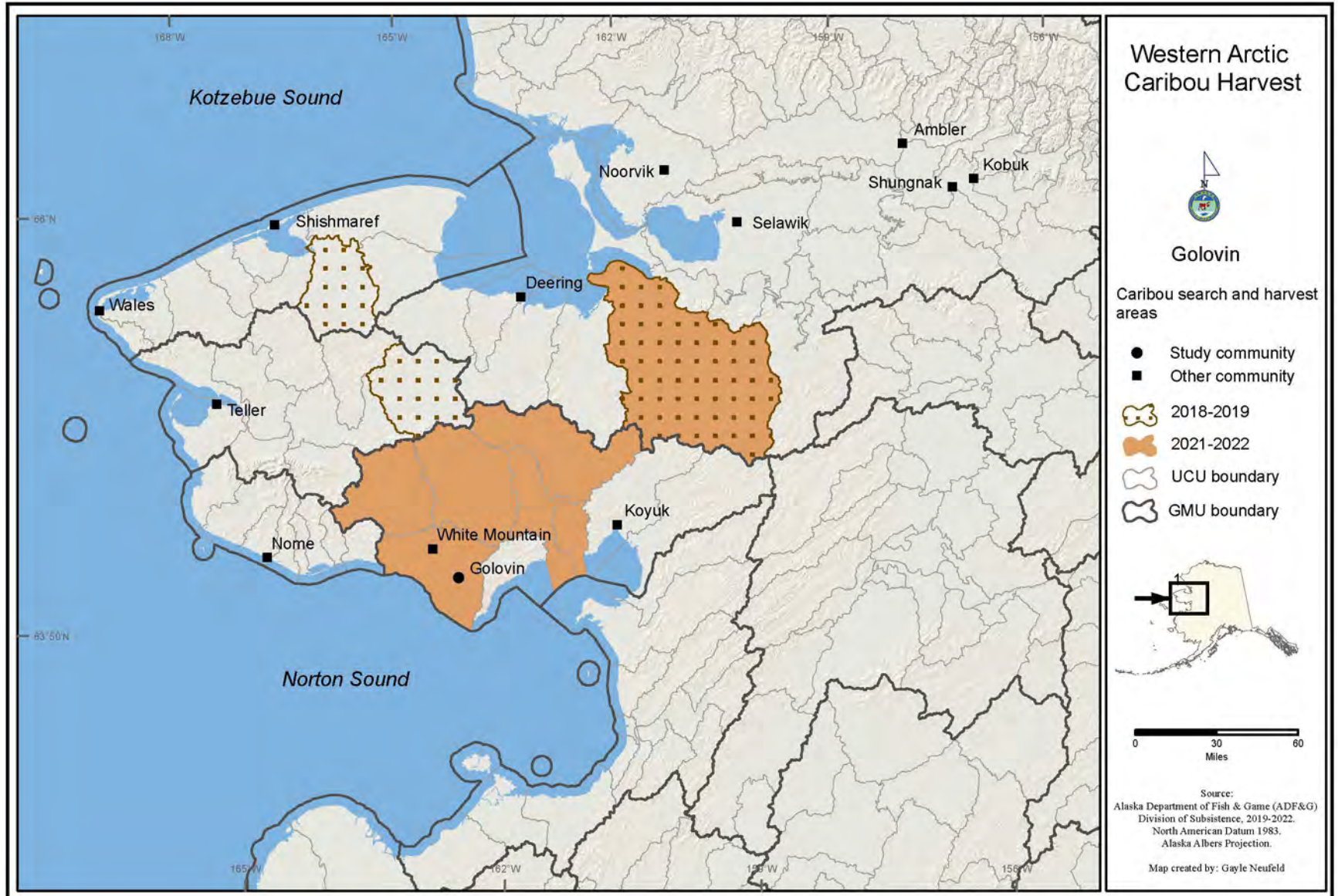
Harvest Timing Kobuk

2020-2021



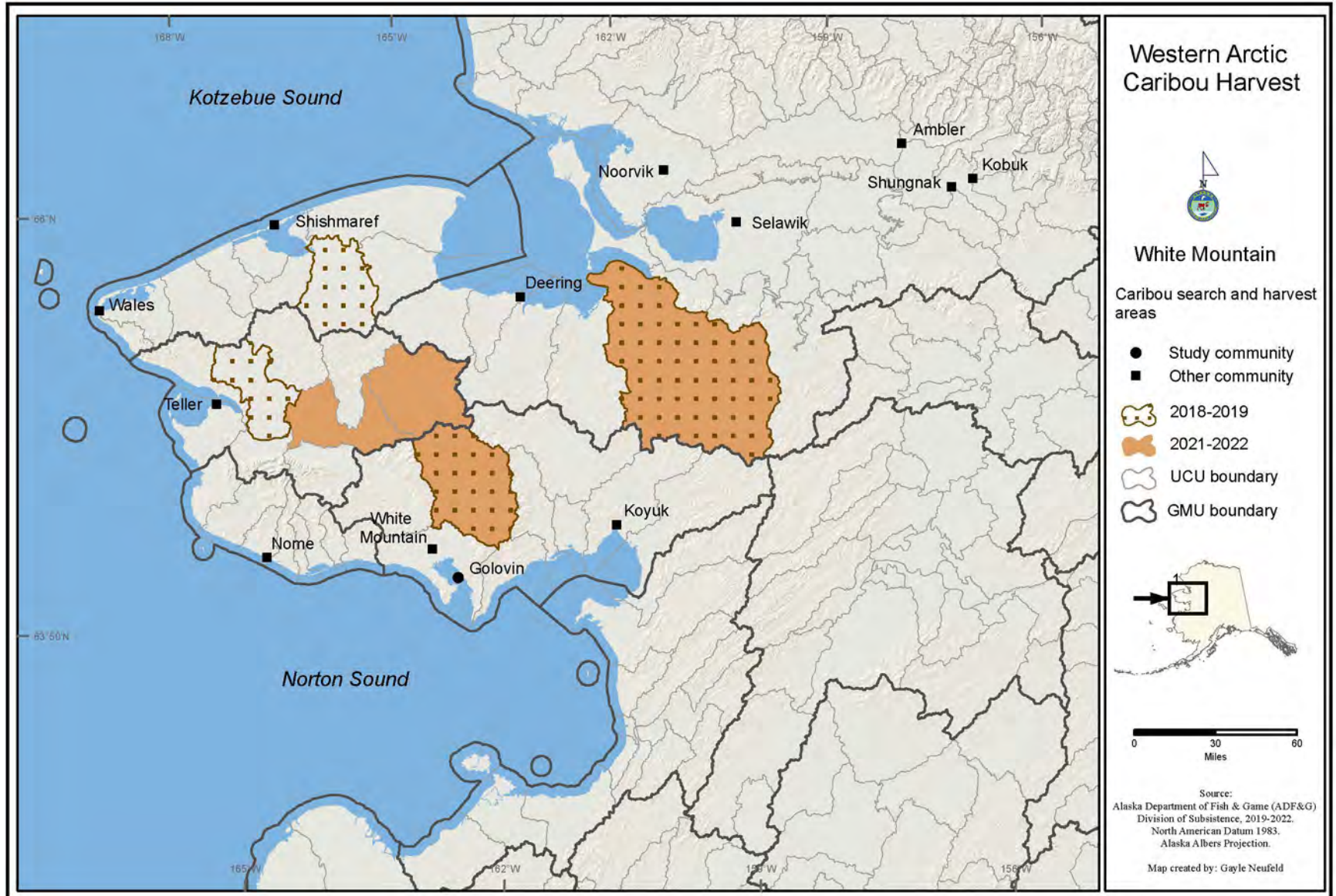
Harvest Areas Golovin

2018-2019, 2021-2022



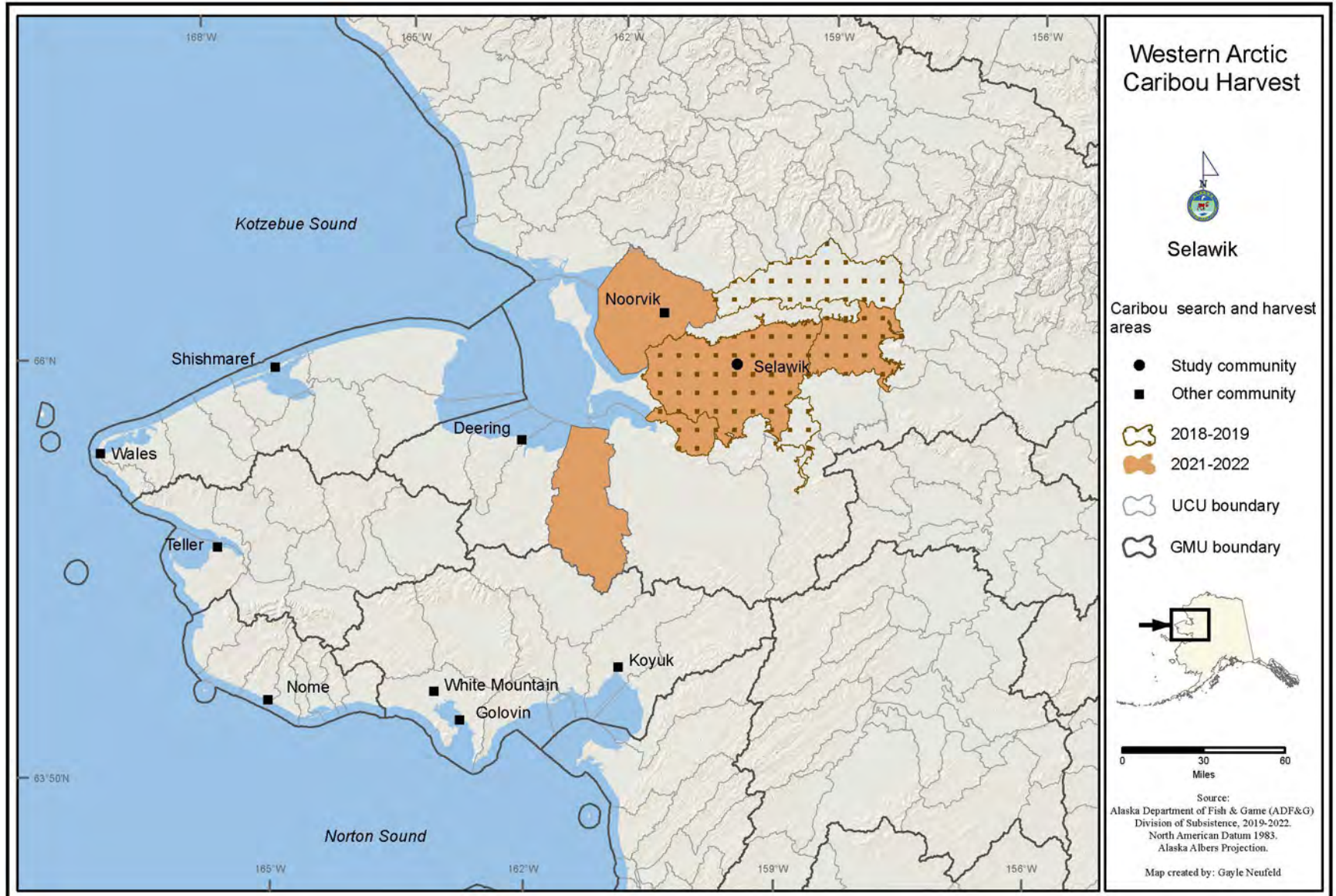
Harvest Areas White Mountain

2018-2019, 2021-2022



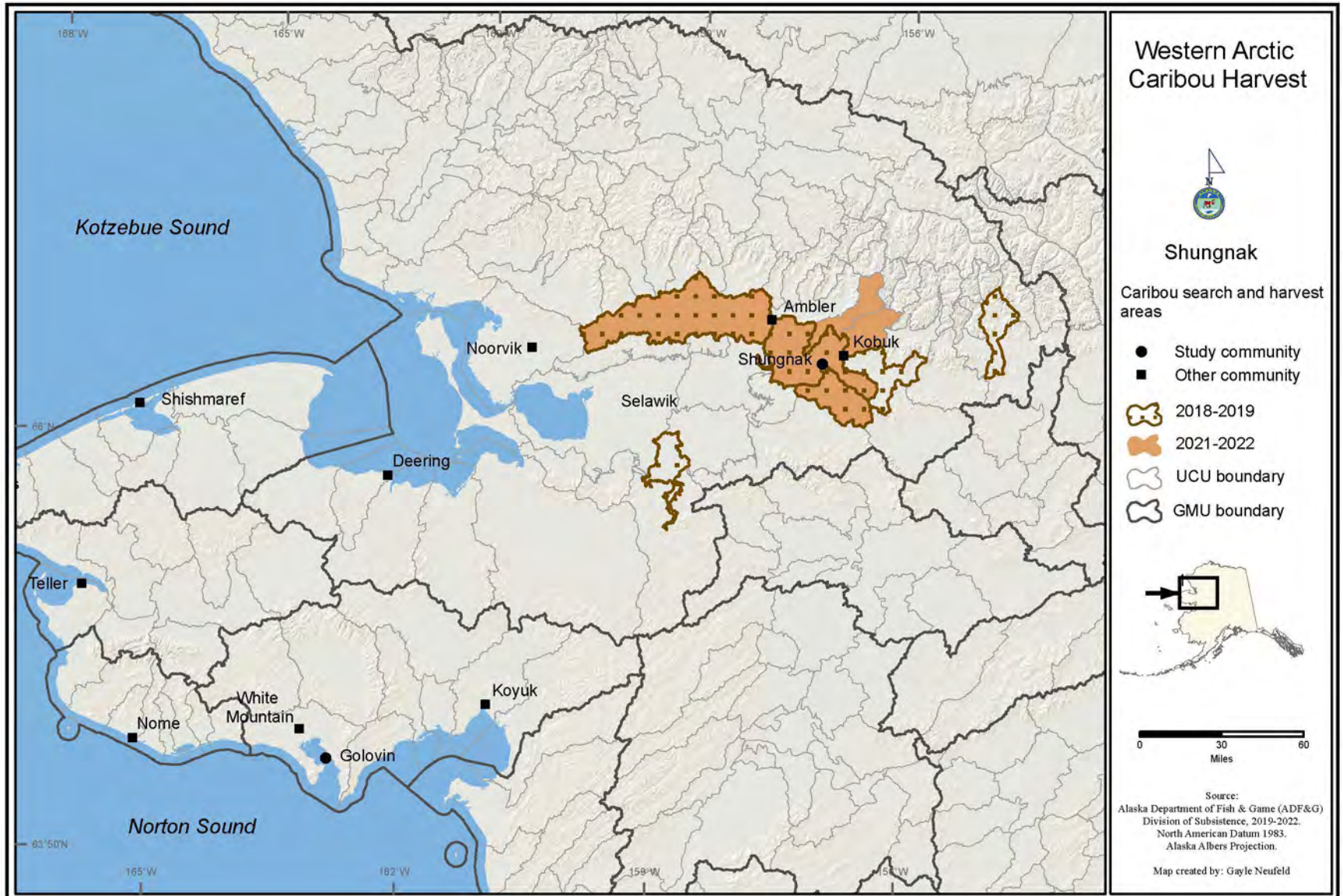
Harvest Areas Selawik

2018-2019, 2021-2022



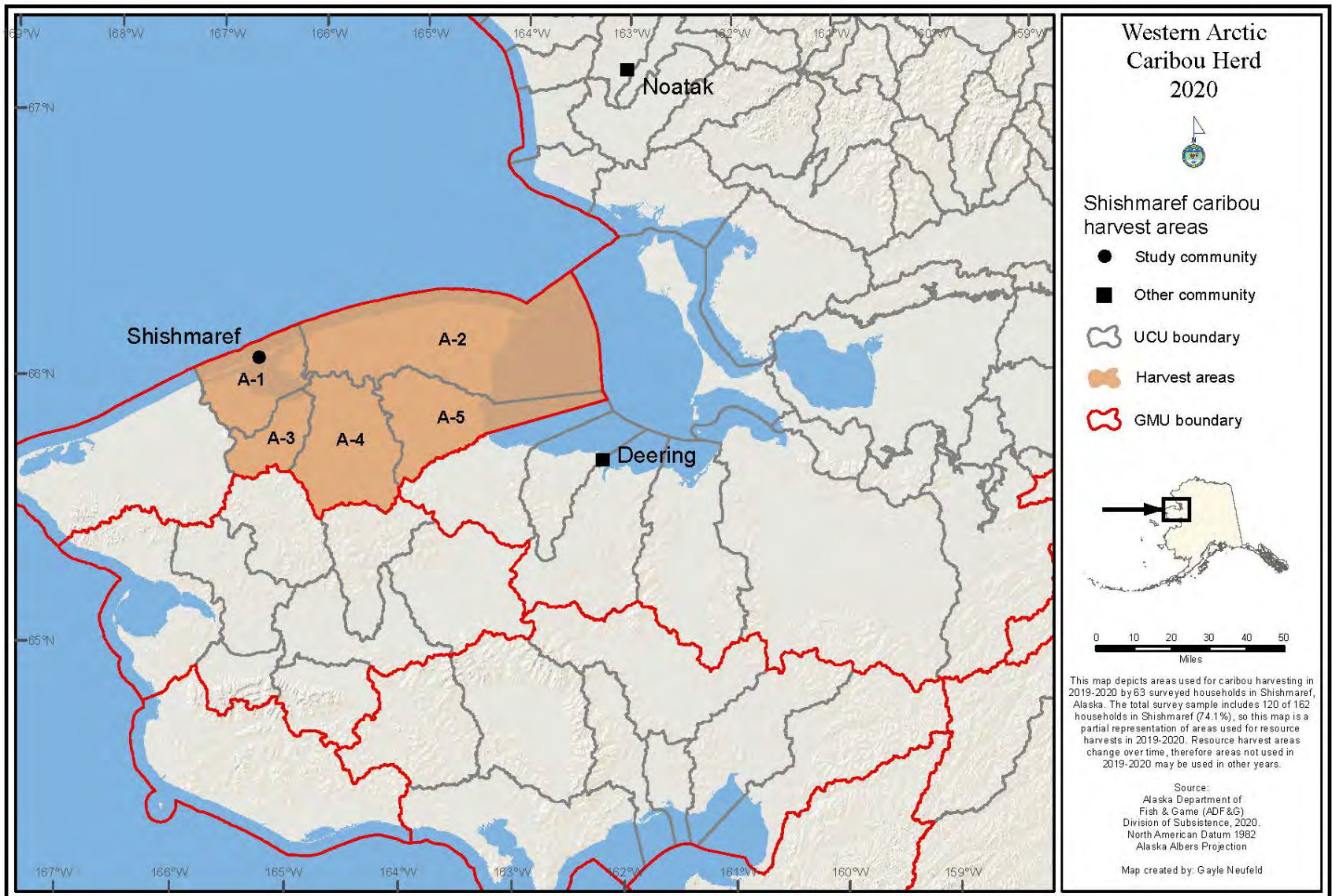
Harvest Areas Shungnak

2018-2019, 2021-2022



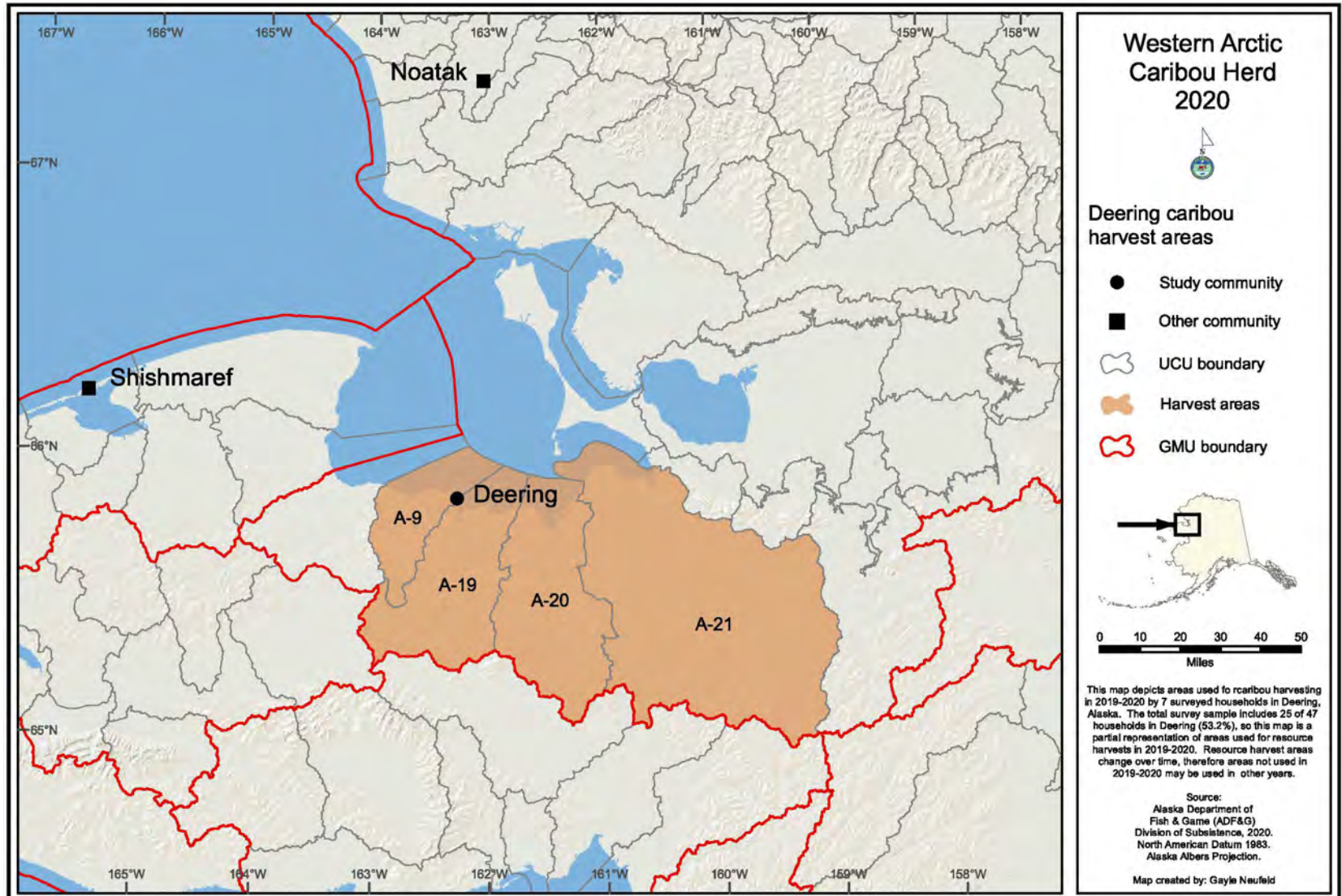
Harvest Areas Shishmaref

2020-2021



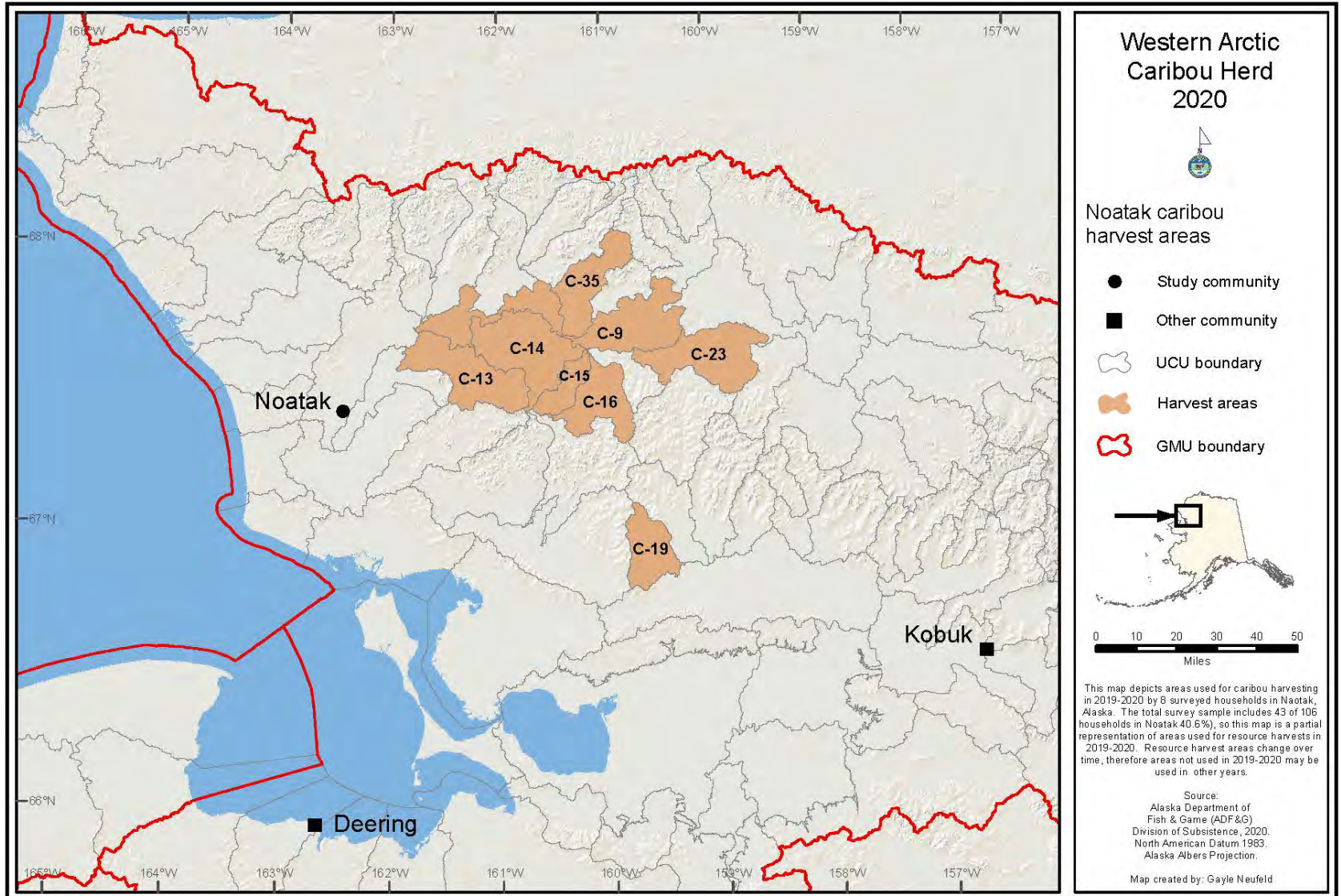
Harvest Areas Deering

2020-2021



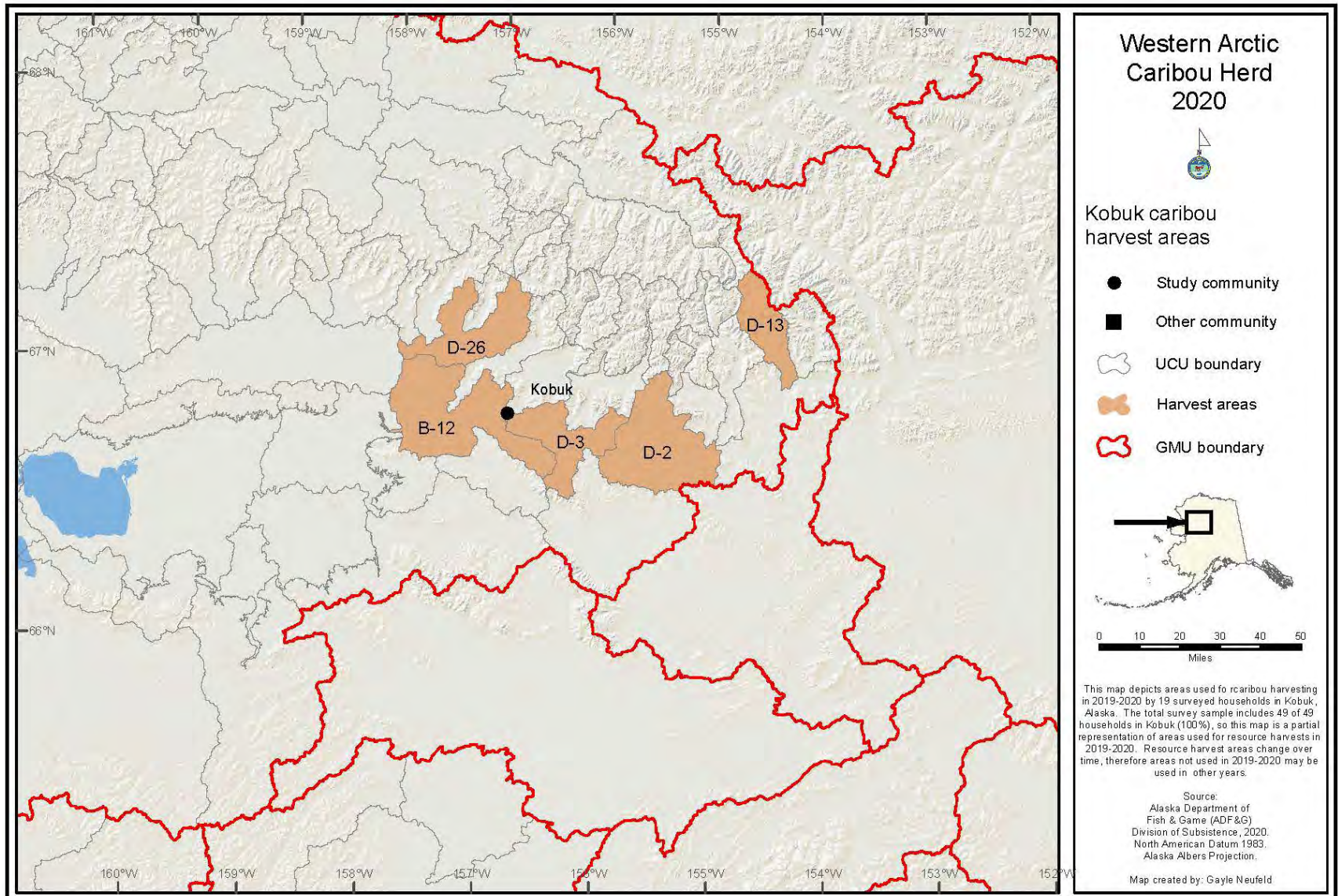
Harvest Areas Noatak

2020-2021

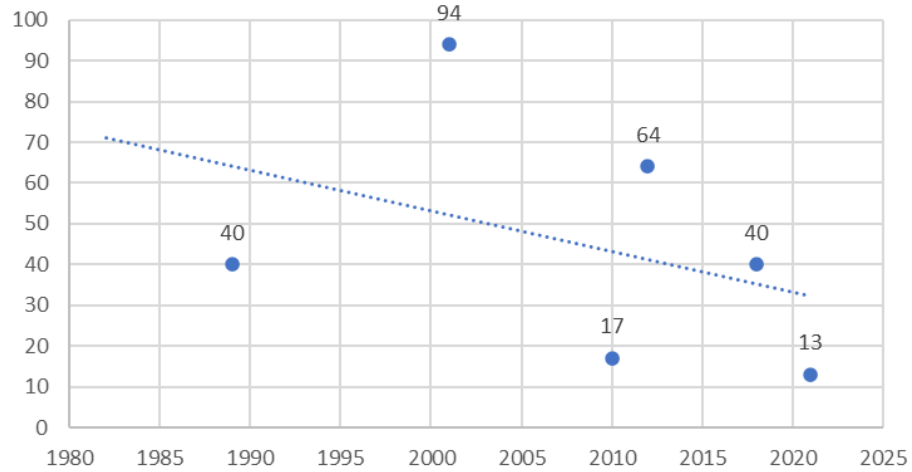


Harvest Areas Kobuk

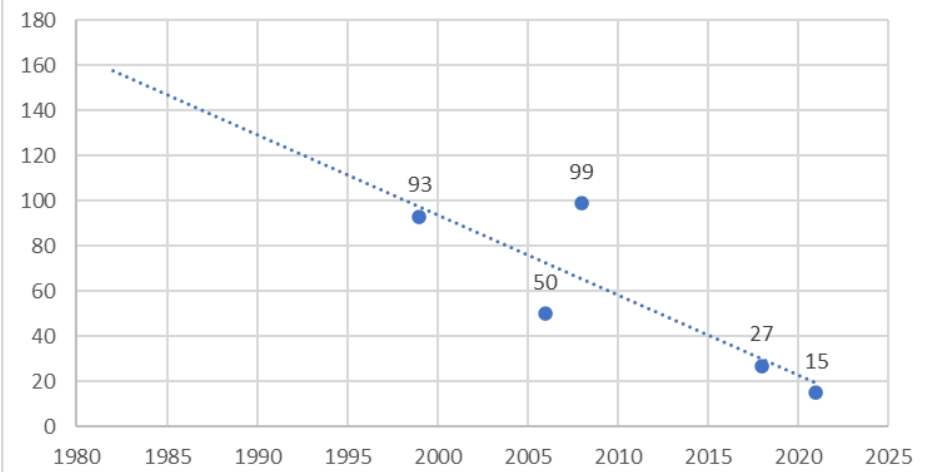
2020-2021



Golovin - Caribou

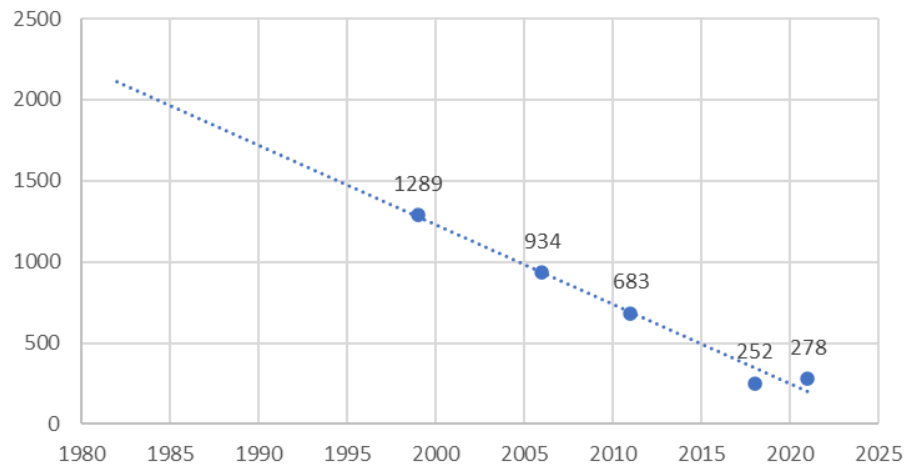


White Mountain - Caribou

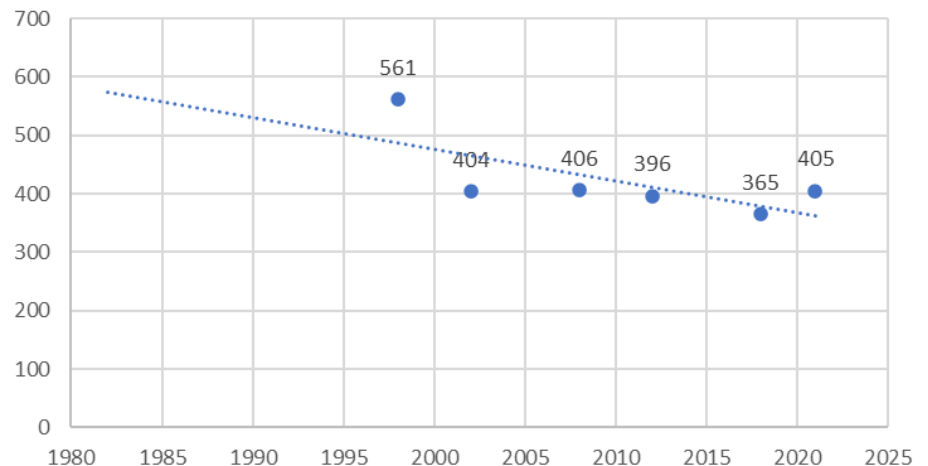


Caribou harvests over time

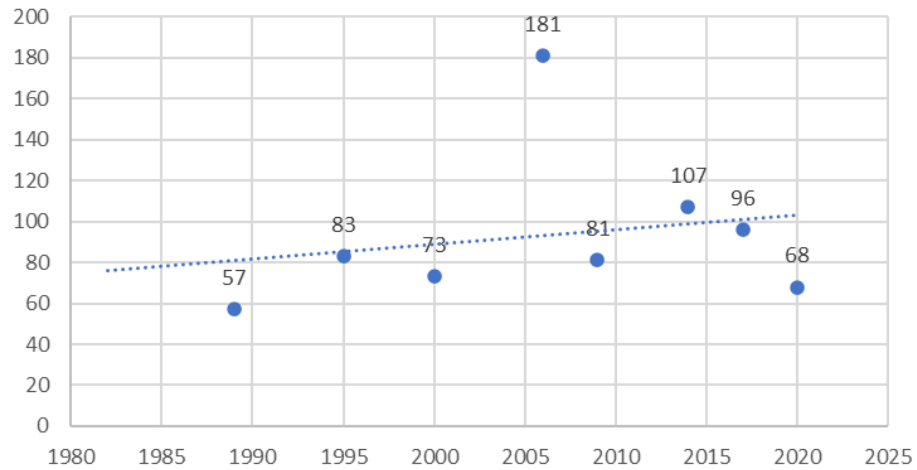
Selawik - Caribou



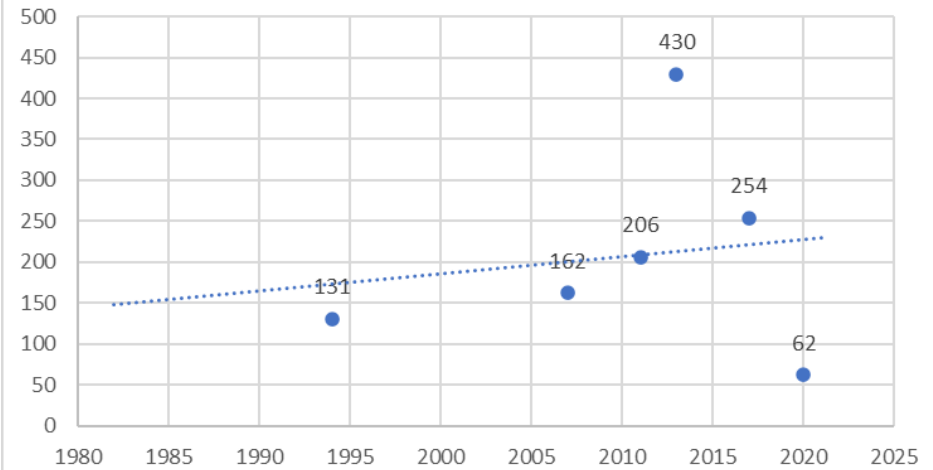
Shungnak - Caribou



Shishmaref - Caribou

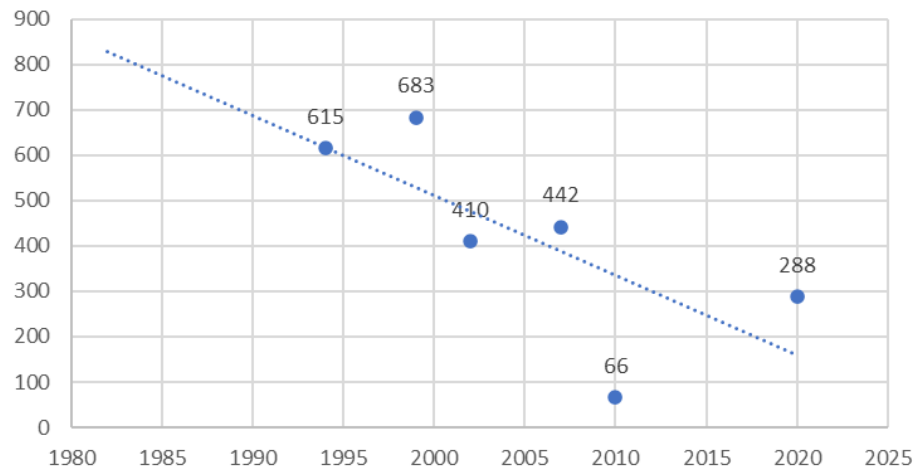


Deering - Caribou

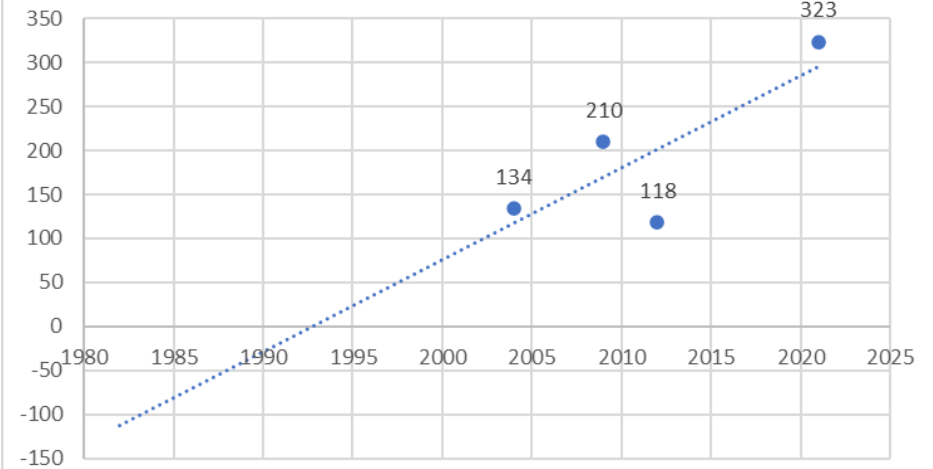


Caribou harvests over time

Noatak - Caribou



Kobuk - Caribou



Observations and Concerns- Golovin

Residents harvest fewer caribou than in the past 30 years because the caribou herd migration does not pass close to the community anymore, but caribou remain an important resource.

Elders continue to teach traditional values of sharing and not wasting to younger generations.

Warming temperatures and changing precipitation patterns caused by climate change are changing subsistence hunting and fishing. Changing conditions pose safety concerns with hunters and fishers traveling over ice.

The cost of responding to the increased number of extreme weather events in Golovin exacerbates the cost of subsistence because of damage to preserved foods, gear, and traditional camps.

Residents are noticing increased signs of wolves and bears. Hunters see more signs of predators close to town and more evidence of moose-kills in traditional hunting areas.

Competition from outside hunters during the fall moose hunt affects their ability to get enough moose and may have consequences for the health of the Fish River. Residents would like to see regulation changes that reduce the impact of outside hunters.



Observations and Concerns - Selawik

Residents learned to hunt land mammals from their families, often while out at camp doing other subsistence activities like drying fish, picking berries, or chopping wood.

Residents notice more frequent winter rain creates a layer of ice over lichens that caribou have a hard time digging through. New environmental patterns add stress to adult caribou survival.

Moose density is lower than in the past, making it harder to have success when you go out to harvest.

Residents are noticing an increase in predators, wolves and brown bears, which affect where caribou move, safety at fish nets, and safety around camps.

Sharing of caribou meat is very important for households unable to hunt or who are unsuccessful hunting.



Observations and Concerns- Shungnak

Shungnak hunters were able to harvest more caribou in 2021-22 than previous years because the herd passed very close to the community.

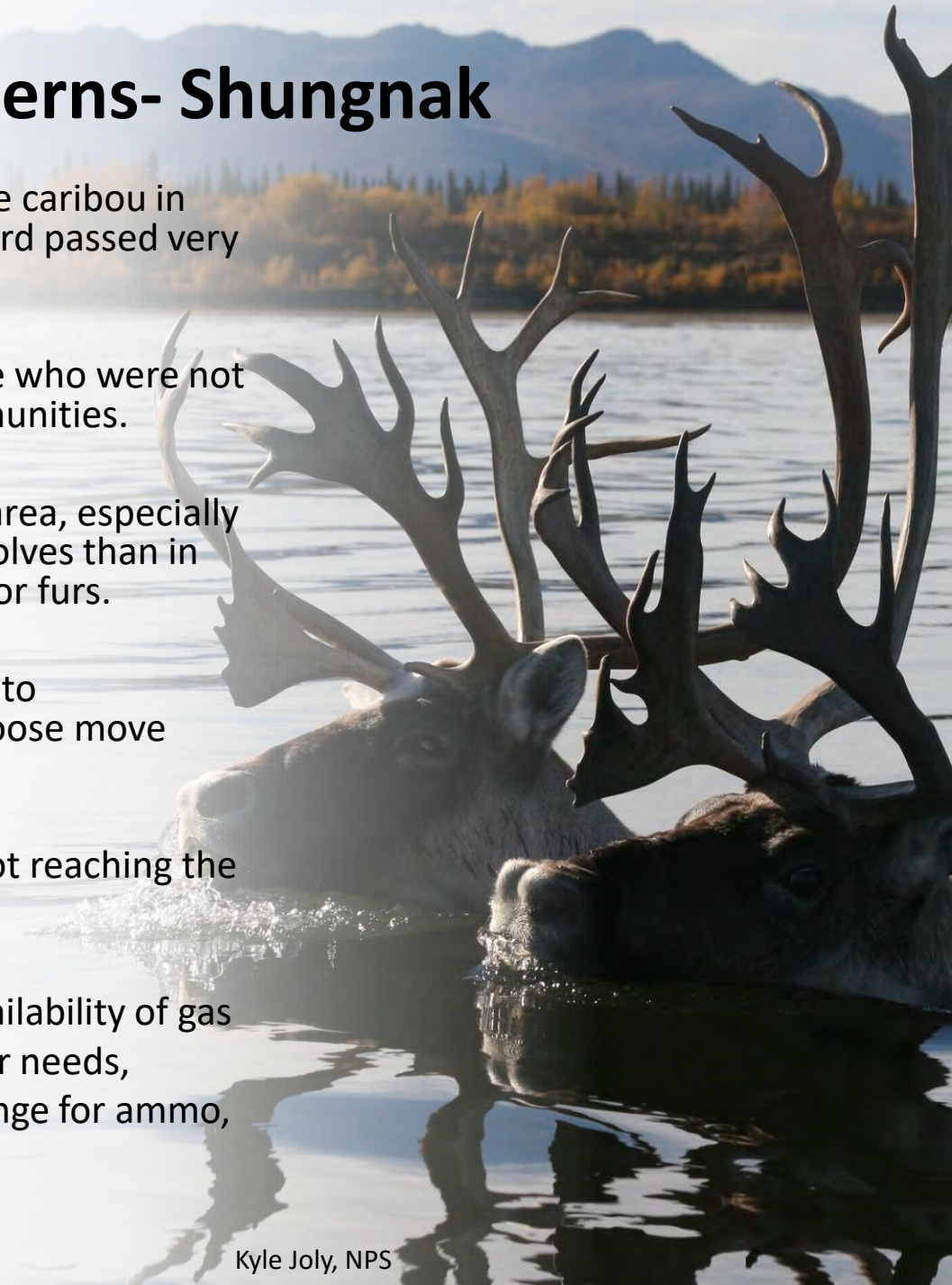
Hunters shared widely with elders and those who were not able to hunt in Shungnak and in other communities.

Residents have seen more predators in the area, especially wolves. Less hunters in Shungnak harvest wolves than in the past because there is less of a demand for furs.

People are concerned about activity related to development, changing how caribou and moose move across the land.

Elders notice the weather is warming and not reaching the cold temperatures it used to.

People are concerned with the price and availability of gas and gear. To make sure everyone meets their needs, people hunt for others, sometimes in exchange for ammo, gas, or using their boat or snowmachine.



Observations and Concerns

– White Mountain

White Mountain residents say patterns of subsistence harvest have changed in the past 50 years because caribou migration does not come close to the community anymore and fewer caribou are harvested by local hunters each year.

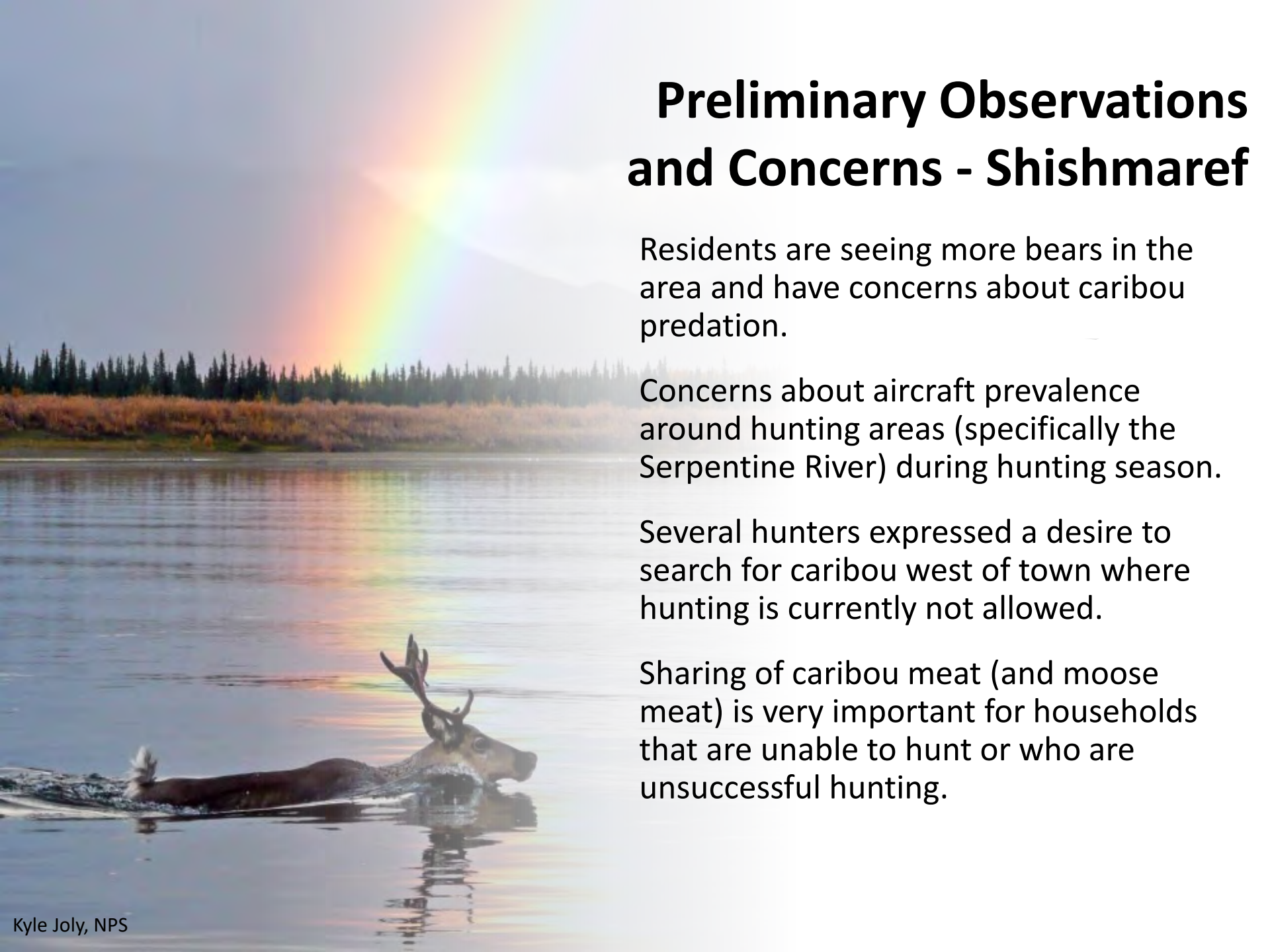
White Mountain hunters' success during the fall moose quota hunt varies depending on the amount of pressure outside hunters put on the Fish River area.

Hunters are concerned about environmental damage caused by the increased number of boats on shallow parts of the river during the Fall hunt. Residents suggest regulation changes to reduce the impact of outside hunters.

Residents notice increased signs of predators, wolves and bears, coming close to town. Some younger people are hunting and trapping furbearers more, though the cost of gas and gear is a limitation.

Elders continue to teach traditional values of sharing and not wasting to younger generations.





Preliminary Observations and Concerns - Shishmaref

Residents are seeing more bears in the area and have concerns about caribou predation.

Concerns about aircraft prevalence around hunting areas (specifically the Serpentine River) during hunting season.

Several hunters expressed a desire to search for caribou west of town where hunting is currently not allowed.

Sharing of caribou meat (and moose meat) is very important for households that are unable to hunt or who are unsuccessful hunting.

Preliminary Observations and Concerns - Deering

Residents indicate there are fewer caribou accessible in recent years than in the past.

Some families relied more on moose meat because of lack of caribou.

Residents expressed concerns over high muskox numbers and a desire to make more hunting opportunities available for this new resource. Some individuals had questions regarding possible competition with caribou.

Sharing of caribou and moose meat is very important for households unable to hunt or who are unsuccessful hunting.



Preliminary Observations and Concerns - Noatak

Many residents expressed concerns about aircraft prevalence around hunting areas upriver, and a desire to restrict sport hunting.

High cost of fuel combined with the distance hunters need to travel to reach the herd can be prohibitive for many families.

Some residents report an increase in the number of bears seen locally and have concerns about bear predation on caribou.

Sharing of caribou meat is very important for households unable to hunt or who are unsuccessful hunting.



Survey comments – Kobuk

Some residents had concerns over the effects of climate change on caribou habitat, but also on access to caribou due to unfrozen ground and lack of snow.

Many residents expressed an interest in hunting muskox to augment caribou harvests when caribou are less available.

Some households reported that moose were an important resource during times when caribou were scarce, and that moose meat was widely shared among community households.

Sharing of caribou meat is very important for households unable to hunt or who are unsuccessful hunting.



Matt Cameron, NPS

Questions?

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