



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Alaska Peninsula and Becharof National Wildlife Refuges
P. O. Box 277
King Salmon, Alaska 99613
907-246-3339



Agency Report to:

Bristol Bay Federal Subsistence Regional Advisory Council

Public Meeting, Dillingham, Alaska
October 29-30, 2025

Staffing at Alaska Peninsula-Becharof NWRs

Marion Burgraff retired from the head maintenance position at Alaska Peninsula-Becharof NWRs this spring. We thank him for his many years of service, and wish him well in retirement.

Mammal Projects

Project: Moose GeoSpatial Population Estimator Survey

In collaboration with Alaska Department of Fish and Game (ADGF), Aniakchak National Monument and Preserve (ANMP), and Togiak National Wildlife Refuge (TNWR), Alaska Peninsula-Becharof National Wildlife Refuges (APB) conducted a GeoSpatial Population Estimator (GSPE) moose survey for Game Management Unit (GMU) 9E from November 3rd to November 9th, 2024. Weather allowed participants to fly on 6 of the 7 days during the survey window, with high winds precluding surveys on Tuesday, November 5th. In total, pilot/observer teams surveyed 230 high stratum sample units and 49 low stratum sample units for a total of 279 sample units. In addition, teams intensively searched 30 sample units to produce a sightability correction factor (SCF). Refuge staff used the software Winfonet for data analysis and, with the SCF incorporated, calculated a total moose population estimate of 1,994 moose for GMU 9E (Table 1). Winfonet also produced composition ratio estimates of 13.2% calves, a calf:cow ratio of 32.4, a yearling bull:cow ratio of 19.1, and a bull:cow ratio of 114.0 (Table 2).

Table 1. Results of the 2024 GeoSpatial Population Estimator survey for GMU 9E, Alaska.

Unit	Year	Survey area (mi ²)	No. units surveyed	Total units in survey area	% Surveyed	SCF used for total	90% CI as proportion of the mean	Estimated observable moose	Estimated total moose density (moose/mi ²)
9E	2024	11361.52	279	1570	17.8	1.13	.23	1,994	0.18

Table 2. Composition ratio estimates from the Winfonet software for GMU 9E, Alaska.

Unit	Year	Calves: 100 Cows	Bulls: 100 Cows	Yearling Bulls: 100 Cows	% Calves	Estimated observable moose	Estimated total moose density (moose/mi ²)
9E	2024	32	114	19	13.2	1,994	0.18



Figure 1. A post survey map of GMU 9E, Alaska showing flight paths during the survey, and distinguishing moose survey units by low density (blue rectangles) and high density (red rectangles).

For more information on mammal projects contact: Bryce Woodruff, USFWS, Alaska Peninsula/Becharof NWR, PO Box 277, King Salmon, AK 99613. Phone: 907-246-1204; e-mail: bryce_woodruff@fws.gov

Project: Moose Trend Area Counts

Refuge staff also conducted an aerial moose survey on the Big Creek Corridor trend area in 9C on November 19th, 2024. Moose density was 0.71 moose/mi². The ratios of bulls, yearling bulls, and calves per 100 cows were 60:100, 24:100, and 32:100 respectively. Refuge staff shared data with ADFG to include in GMU 9 trend area analysis.

For more information on mammal projects contact: Bryce Woodruff, USFWS, Alaska Peninsula/Becharof NWR, PO Box 277, King Salmon, AK 99613. Phone: 907-246-1204; e-mail: bryce_woodruff@fws.gov

Project: **Alaska Hare Surveys**

Refuge staff continued efforts last winter to identify areas of Alaska hare (*Lepus othus*) presence. In 750 miles of surveys on Alaska Peninsula and Becharof NWRs, staff collected eighteen new fecal pellet samples. We are currently awaiting analysis at the lab to positively identify individual Alaska hares. Surveys will continue this winter as conditions allow.

For more information on mammal projects contact: Bryce Woodruff, USFWS, Alaska Peninsula/Becharof NWR, PO Box 277, King Salmon, AK 99613. Phone: 907-246-1204; e-mail: bryce_woodruff@fws.gov

Project: **Moose Twinning Survey (GMUs 9C & 9E)**

With assistance from Katmai National Park and Preserve, Alaska Peninsula-Becharof National Wildlife Refuges conducted moose twinning surveys in game management units (GMU) 9C and 9E from May 24th to May 28th, 2025. We observed 277 adult and yearling moose, including 11 cows with one calf and 28 cows with twins (Table 3). We calculated a twinning rate of 72% for the 2025 survey, and a three-year average of 75%. Twinning rates are used as an index for the nutritional condition of cow moose and, therefore, also habitat quality.

Table 3. Observed moose by survey date during the spring 2025 moose twinning survey for GMU 9C and 9E, Alaska.

		Survey Dates				
		5/24/24	5/25/24	5/27/24	5/28/24	Total
Moose Observed						
	Bulls	6	62	40	27	135
	Yearling cows	3	12	7	6	28
	Cows with no calves	5	27	25	18	75
	Cows with one calf	1	6	4	0	11
	Cows with two calves	2	14	9	3	28
	Cows with three calves	0	0	0	0	0

For more information on mammal projects contact: Bryce Woodruff, USFWS, Alaska Peninsula/Becharof NWR, PO Box 277, King Salmon, AK 99613. Phone: 907-246-1204; e-mail: bryce_woodruff@fws.gov

Avian Projects

Project: Willow Ptarmigan Density Estimate

In collaboration with Katmai National Park and staffing support from Alaska Department of Fish and Game, the Alaska Peninsula/Becharof NWRs completed two Willow Ptarmigan Density line transect surveys in the Naknek area in May 2025. We detected 14 male ptarmigan on the Ralf's Road transect and one male ptarmigan on the Eight Mile transect, a slight decrease from the past two years (Figure 2). Incidental Willow Ptarmigan detections continued to be high across the Alaska Peninsula on other landbird surveys.

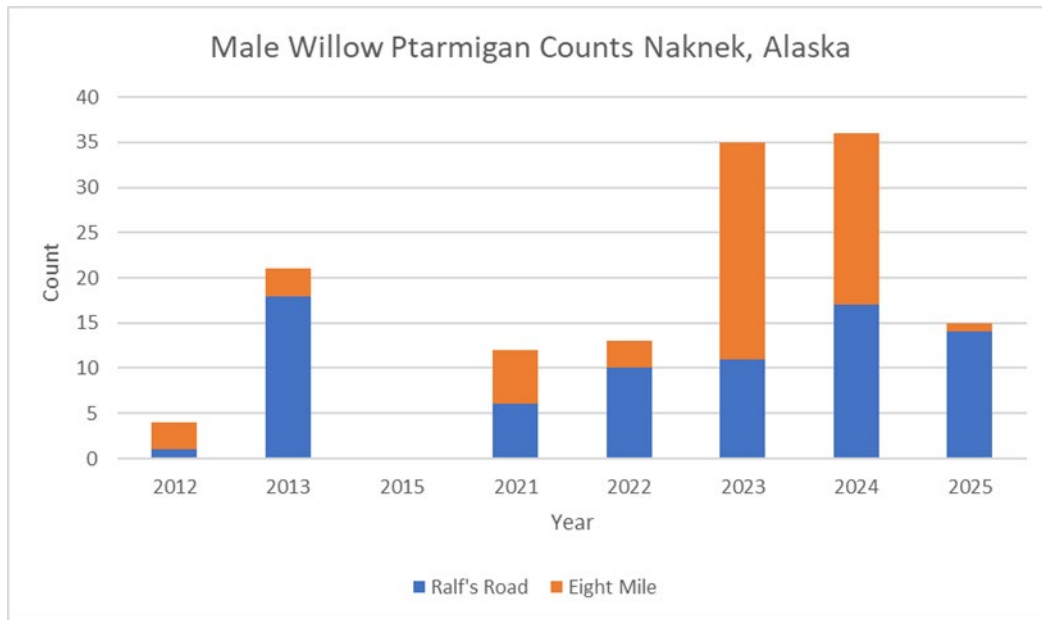


Figure 2. Male Willow Ptarmigan detections on the Ralf's Road (blue) and Eight Mile (orange) 4-km Line Transects, Naknek, Alaska.

For more information on avian projects contact: Jaime Welfelt, USFWS, Alaska Peninsula and Becharof NWRs, PO Box 277, King Salmon, AK 99613. Phone: 907-782-5000; email: jaim_welfelt@fws.gov