ALEUT COMMUNITY OF ST. PAUL
ECOSYSTEM CONSERVATION

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Memorandum for the Record: Subsistence Use of Qawan (Steller sea lions) on St. Paul Island, Alaska in 2022

Aang (Greetings):

The Aleut Community of St. Paul Island, through the Ecosystem Conservation Office (ECO), monitors the subsistence use of qawan, or Steller sea lions (*Eumetopias jubatus*), as a function of our co-management agreement with the National Marine Fisheries Service (NMFS). Our primary co-management responsibility for the subsistence use of qawan is to collect subsistence monitoring data and to report annual subsistence levels to our community and to NMFS. The real-time subsistence monitoring method established by the ECO under its Tanam Amgignaa (Island Sentinel) Program allows for the collection of local subsistence data within a 48-hour period via voluntary hunter reporting and reporting requirements outlined in the Co-Management Agreement (https://www.fisheries.noaa.gov/resource/document/co-management-agreement-between-aleut-community-st-paul-island-and-national). ECO collects subsistence data directly from hunters in a standardized format and enters quality-controlled data into our BeringWatch database. Subsistence data are obtained at a high rate through active monitoring by ECO Island Sentinels and one-on-one communication with hunters. Over the years, ECO Island Sentinels have developed an effective and positive working relationship with subsistence hunters and continue to improve communication with hunters through active and consistent interactions. All of the active qawax̂[1] hunters on St. Paul Island agreed to participate in the ECO real-time monitoring process in 2021.

Enclosed below, please find a Memorandum for the Record reporting on subsistence use of qawan on St. Paul Island from December 1, 2021 to November 30, 2022. The qawax̂ hunting monitoring log for 2022 is attached as an appendix. We are reporting the 12-month period based on the complete qawax̂ subsistence season rather than on the calendar year. This memorandum was made possible through the Alaska Native Co-Management Funding Program award No. NA19NMF4390120 and NA20NMF4390060 with the NOAA AK Region.

Hunting mortality

Subsistence hunters took a total of 17 qawan from **December 1, 2021 to November 30, 2022.** Of the total taken, 12 (71%) were retrieved and 5 (29%) were struck and lost. This annual retrieval rate is slightly lower but remains consistent with the mean annual retrieval rate of 72% from 2005-2016. Of the 12 qawan retrieved, all were juvenile males. Hunters may report the sex and age class of a struck and lost animal based on their knowledge of sexing and aging qawan from previous hunting experience, but for analysis purposes, the sex and age class of the 8 struck and

[1] Singular form of qawan.

lost qawan were recorded as unknown.

Hunting seasons

Hunting occurred in all four seasons. Winter (December of the previous year – February), spring (March – May), summer (June-August) and fall (September – November) in 2022. Of the 4 total animals taken in the winter, 2 (50%) qawan were retrieved and 2 (50%) were struck and lost (Table 1). A total of 9 animals were taken in the spring, with 7 (78%) qawan retrieved and 2 (22%) struck and lost. Only one animal was taken in the summer, with 0 (0%) qawax̂ retrieved and 1 qawax̂ (100%) struck and lost. Of the 3 animals taken in the fall, 3 (100%) qawan were retrieved and none (0%) were struck and lost.

Table 1. Qawan hunting performance by season on St. Paul Island, Alaska, during the 2022 season.

Season	Retrieved		Struck and Lost		Total
	Number	Percent (%)	Number	Percent (%)	
Winter	2	50%	2	50%	4
Spring	7	78%	2	22%	9
Summer	0	0%	1	100%	1
Fall	3	100%	0	0%	3
Total/Average %	12	71%	5	29%	17

Hunting locations

Hunting effort was higher for qawan hunted in the water than on land due to qawax̂ behavior and the increased likelihood of encountering a harvestable animal while it is swimming versus resting on land. A total of 10 (59%) qawan were taken when the animal was in the water and 7 (41%) were shot when the animal was hauled out on land. All hunters are on land when they shoot qawan (i.e., no hunting from vessels occurs). The retrieval rate for qawan shot while the animal is in the water was 60% and 86% for qawan shot on land (Table 2). Qawan hunted in the water were hunted from two locations in 2021: Northeast Point and Reef (Fig. 1). At Northeast Point, 1 qawan (50%) was struck and lost and 1 (50%) was retrieved. At Reef, 5 (62%) qawan were retrieved from the water and 3 (38%) were struck and lost. Thus, the total retrieval rate for qawan shot in the water was 60%, owing to higher effort at Reef in the winter (when this hunting location is the most accessible to hunters) when environmental conditions make recovery from water less favorable (Table 3).

Table 2. Hunting performance of qawan taken (inclusive of animals shot in the water and on land) on St. Paul Island, Alaska, in the 2022 season.

Qawax̂ Location	Retrieved		Struck and Lost		Total
	Number	Percent (%)	Number	Percent (%)	
Water	6	60%	4	40%	10
Land	6	86%	1	14%	7
Total/Average %	12	71%	5	29%	17

Table 3. Hunting performance of qawan shot while the animal was in the water at hunting locations on St. Paul Island, Alaska, in 2022.

Region	Retrieved		Struck and Lost		Total
	Number	Percent (%)	Number	Percent (%)	
Northeast Point	1	50%	1	50%	2
Southwest Point	0	0%	0	0%	0
Reef	5	62%	3	38%	8
Total/Average %	6	60%	4	40%	10

Biological sample collections

In addition to subsistence monitoring data, ECO Island Sentinels collect biological samples from retrieved qawan immediately following the butchering process whenever possible. Since 2005, Island Sentinels have collected a standard suite of samples consisting of the snout or upper jawbone (upper right canine and upper right 2nd premolar tooth) and 3-4 vibrissae or whiskers. Teeth are used to age the retrieved qawan and whiskers are archived in ECO for stable isotope analysis of diets pending future funding. In 2022, Island Sentinels collected snouts from 7 subsistence hunted qawan (58% of total retrieved animals) and whiskers from 5 subsistence hunted qawan (42% of total retrieved animals). Two sets of whiskers from a sampled animal were taken by the hunter for traditional arts and crafts. No branded or tagged qawan were reported to ECO Island Sentinels from hunters in 2022. All canines and premolars have been processed via the Steam Kettle protocol and sent to Matson's Laboratory for analysis. ECO will provide these data to NMFS when available.

We thank the St. Paul Island qawax̂ hunters for their continued active participation and cooperation in ECO's subsistence monitoring program as data collection and high reporting would not be possible without their collaboration, our ECO Island Sentinels, and NMFS for their continued partnership in co-management of subsistence use of qawan. If you have any questions, please contact the ECO department at 907-546-3200, or via email at lmdivine@aleut.com.

Qaĝaalakuxˆ…Thank you,

Lauren Divine

Lauren Divine, ECO Director

CC: St. Paul Island Qawax̂ Hunters

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Appendix – Qawax̂ hunting monitoring log for St. Paul Island, Alaska in 2022. All samples were collected in accordance with NMFS Permit 19436-02.

Harvest ID	Hunt Date	Region	Retrieved/Struck-lost	HV/SL Date	Sex	Age Class	Hunter Location	SSL Location	Sample Number	Sample Type
SSL 2201	1-Feb-22	REEF	Struck-Lost	4-Feb-22	Unknown	Unknown	Land	Water		
SSL 2202	1-Feb-22	REEF	Struck-Lost	4-Feb-22	Unknown	Unknown	Land	Water		
SSL 2203	26-Feb-22	REEF	Retrieved	26-Feb-22	Male	Juvenile	Land	Water	SNPSSL 2203	SN/WH
SSL 2204	27-Feb-22	REEF	Retrieved	27-Feb-22	Male	Juvenile	Land	Water	SNPSSL 2204	SN
SSL 2205	2-Mar-22	REEF	Retrieved	2-Mar-22	Male	Juvenile	Land	Water	SNPSSL 2205	SN/WH
SSL 2206	4-Mar-22	REEF	Retrieved	4-Mar-22	Male	Juvenile	Land	Water	SNPSSL 2206	SN/WH
SSL 2207	5-Mar-22	REEF	Retrieved	5-Mar-22	Male	Juvenile	Land	Water	SNPSSL 2207	SN/WH
SSL 2208	4-Mar-22	REEF	Struck-Lost	5-Mar-22	Unknown	Unknown	Land	Water		
SSL 2209	12-May-22	NEPT	Retrieved	12-May-22	Male	Juvenile	Land	Land	SNPSSL 2209	SN/WH
SSL 2210	16-May-22	NEPT	Struck-Lost	18-May-22	Unknown	Unknown	Land	Water		
SSL 2211	27-May-22	NEPT	Retrieved	27-May-22	Male	Juvenile	Land	Land		
SSL 2212	27-May-22	NEPT	Retrieved	27-May-22	Male	Juvenile	Land	Land		
SSL 2213	30-May-22	NEPT	Retrieved	30-May-22	Male	Juvenile	Land	Water	SNPSSL 2213	SN
SSL 2214	5-Jul-22	SWPT	Struck-Lost	7-Jul-22	Unknown	Unknown	Land	Land		
SSL 2215	15-Oct-22	NEPT	Retrieved	15-Oct-22	Male	Juvenile	Land	Land		
SSL 2216	23-Oct-22	NEPT	Retrieved	23-Oct-22	Male	Juvenile	Land	Land		
SSL 2217	22-Oct-22	NEPT	Retrieved	22-Oct-22	Male	Juvenile	Land	Land		