

Survey Summary: 2023 WRST Moose Survey

Scott D. Miller

Information Technology Specialist National Park Service, Arctic Inventory and Monitoring Network
240 W. 5th Ave
Anchorage, AK 99501

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Summary

The 2023 Wrangell-St. Elias National Park & Preserve Moose Survey started on 11/14/2023 and ended on 11/30/2023. A total of 146 GSPE grids were surveyed for different age and composition of moose. Survey conditions were Good to Excellent at the beginning of the survey as cold temperatures (e.g. -30oF on 11/20/2023) created frost on the trees and shrubs making observations of moose easy. With snowy conditions stopping, temperatures warming, and wind that blew the frost from the trees and snow from southerly aspects, the quality of survey conditions deteriorated throughout the survey until it was finished on 11/30/2023. Conditions at the end of the survey were Fair to Good. The central portion of the survey area, the area west side of Mt. Drum to the south towards Cheshnina River, contained the most snow resulting in excellent survey conditions. A total of 4 aircraft assisted with the survey, including one PA-18 from the ADFG-Tok office, one PA-18 from the ADFG-Glennallen office, and 2 NPS vendor PA-18 aircraft. Approximately 125 hours of flight time (including ferry time) was needed to complete the 2023 moose survey.

Survey details

Details about the 2023 WRST Moose Survey are presented in Table 1, below.

Table 1. Survey details, 2023 WRST Moose Survey.

Year	2023
Network	CAKN
Park	WRST
Season	Winter
StartDate	2023-11-14
EndDate	2023-11-30
AreaSurveyed_mi	3773
AverageSearchEffort	
Methodology	GSPE
ReportReferenceCode	
SurveyUnitSet	ADFG GSPE
Methodology	GSPE
RecordCount	606
UnitsInSurveyUnitSet	
PolygonsCount	606
PercentCertified	1
ReportReferenceCode	

DeliverablesDatasetReferenceCode2278642

SeasonWinter

ProtocolVersion1

PopulationEstimateRecords0

DensityEstimateRecords0

ReportLink

Survey Area

The survey area for the 2023 WRST Moose Survey is shown in the map below (Figure 1).

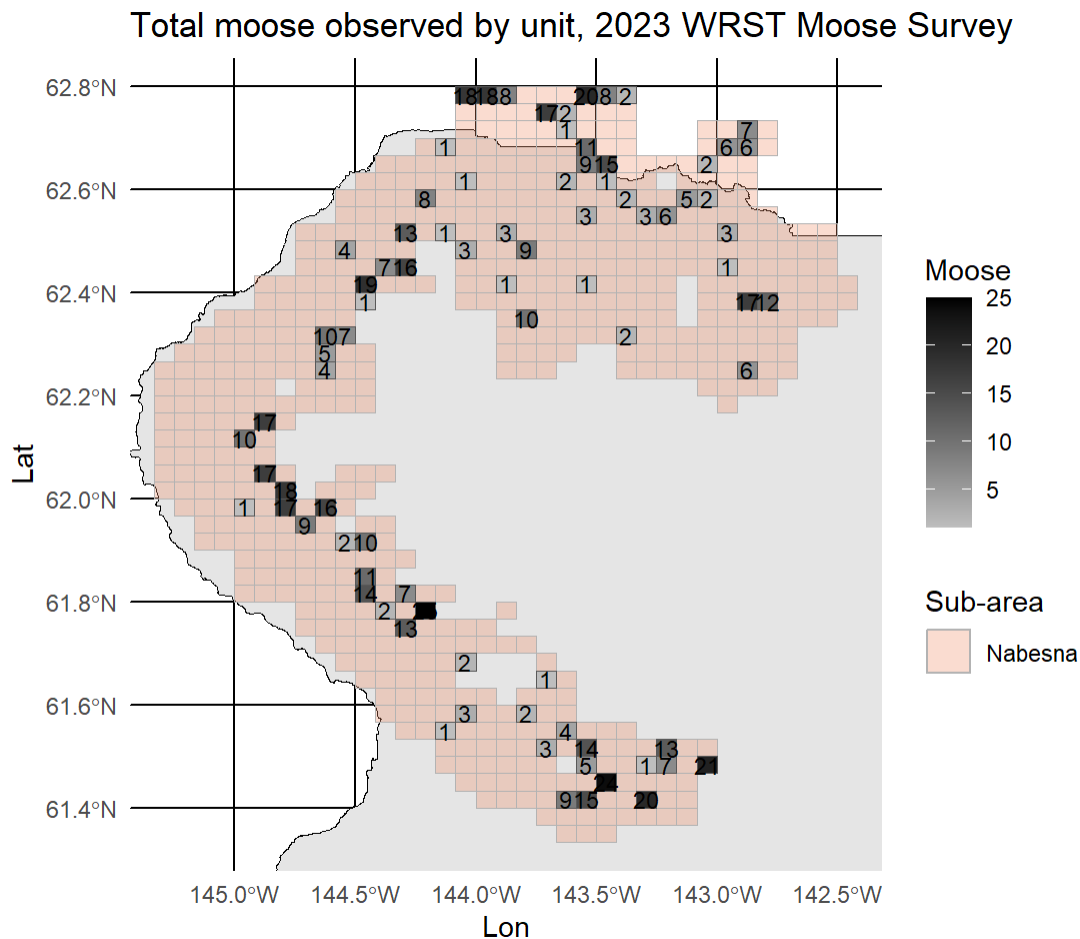


Figure 1. Map of survey units, 2023 WRST Moose Survey. Park boundary is shown in gray.

Results

Survey results are presented in Table3, below. Please note these results are calculated automatically by the database and may not account for the unique factors that affect a moose survey (logistical or weather problems, whether a sightability correction factor was generated and applied,

missing or incomplete data collection, missing units, partially surveyed units, differing methods among flight crews, etc.). Consult the [survey report](#) to interpret results.

Table 3. Survey results.

Park	WRST
Year	2023
StartDate	2023-11-27
EndDate	2023-11-29
N	606
Records missing polygons	0
Proportion of records certified	1
Area of survey (Km^2)	9770.486
Area of surveyed units (Km^2)	2348.702
Area of survey (Mi^2)	3772.404
Area of surveyed units (Mi^2)	906.8384
Calves:100 cows (unadjusted)	7.505519
Bulls:100 cows (unadjusted)	41.0596
Calves:100 adults (unadjusted)	5.320814
Minimum density (unadjusted moose/sq. mi.)	0.1784008
Area_SqMi, counted	906.862
N, counted	146
N, not counted	460
N, Counted is NULL	0
Proportion of units counted	0.24
CALF	34
Total calves (Calculated)	34
COW_W_0	419
COW_W_1	34
COW_W_2	0
COW_W_3	0
COW	453
Total cows (Calculated)	453
YBULL_SF	13
YBULL_GTSF	
SM_BULL	
MED_BULL	
MED_L_BULL	
LG_BULL	
BULL_30_40	
BULL_30_50	109
BULL_30_60	
BULL_41_50	
BULL_GT_50	64
BULL_GT_60	
BULL_GTE_50	
BULL_LT_30	
BULL_LT_50	
YBULL_ALL	
BULL_ALL	186
Total bulls (Calculated)	186
UNKNOWN	0
ADULT	639

Total adults (Calculated)	639
MOOSE	673
Total moose (Calculated)	673
Personnel	
Report	
DeliverableDataset	https://irma.nps.gov/DataStore/Reference/Profile/2278642
Protocol	https://irma.nps.gov/DataStore/Reference/Profile/2256017
SurveyUnitSet	ADFG GSPE