



TORNGAT
**WILDLIFE
PLANTS &
FISHERIES**
SECRETARIAT

Results of moose aerial classifications in Moose Management Area 91 (Kaipokok), February 16-23, 2026

Torngat Wildlife, Plants and Fisheries Secretariat
19 Burnwood Drive, PO Box 1028 Stn. C
Happy Valley-Goose Bay, NL A0P1C0

2026

Torngat Wildlife and Plants Co-Management Board



Torngat Wildlife, Plants and Fisheries Secretariat

The primary responsibilities of the Torngat Wildlife and Plants Co-management Board and the Torngat Joint Fisheries Board are to establish total allowable harvests for non-migratory species of wildlife and for plants, recommend conservation and management measures for wildlife, plants, and habitat in the Labrador Inuit Settlement Area (LISA) and to make recommendations in relation to the conservation of species, stocks of fish, aquatic plants, fish habitat, and the management of fisheries in the Labrador Inuit Settlement Area.

The Secretariat is the implementation agent of the Torngat Joint Fisheries Board and the Torngat Wildlife and Plants Co-Management Board. The Secretariat provides financial, logistical, project management, and analytical support to both boards.

Torngat Omajunik, Piguttunik Oganniaganillu Suliangit

Suliagigumajangit Torngat Omajunik, Piguttunillu AulatsiKatigengita AngajukKauKatigengit ammalu Torngat Ikajuttiget Oganniatuligijingita AngajukKauKatigengit sakKititsigiamut pijaugunnatunik katillugit aullaigatsatagiamut nokataKattangitunik omajunik ammalu piguttunik, uKautjigiajut asikKitailigiamut ammalu aulatsigiamut omajunik, piguttunik, ammalu inigiKattajanginnik Labradorimi Inuit Satusasimajanginni Nunani (LISA) ammalu uKautjigiagutunik ilingajunik asikKitailigiamut omajunik, oganniaganik, piguttunik, oganik, ammalu aulatsigiamut oganniaganik Labradorimi Inuit Satusasimajanginni Nunani.

SuliaKattet atuliaKititsigumajut kiggatuttinganik Torngat Ikajuttiget Oganniatuligijingita AngajukKauKatigenginnik ammalu Torngat Omajuligijinginnik Piguttunillu AulatsiKattajut AngajukKauKatigenginnik, sunatuinnanik, suliatsanik aulatsigiamut ammalu ikajutsitaullutik tamâginnut angajukKauKatigenut.



Torngat Wildlife, Plants & Fisheries Secretariat Series

2026

Results of Moose Aerial Classification in Moose Management Area 91 (Kaipokok)
February 16-23, 2026

Torngat Wildlife Plants and Fisheries Secretariat
19 Burnwood Drive, PO Box 1028 Stn. C
Happy Valley-Goose Bay, NL
A0P1C0



Published by:
Torngat Wildlife, Plants and Fisheries Secretariat
19 Burnwood Drive, PO Box 1028 Stn. C
Happy Valley-Goose Bay, NL
A0P1C0



Table of Contents

List of Figures	vi
List of Tables	vii
Executive Summary	viii
AngajukKaunet Naillititsiutinga	ix
1. Introduction	1
2. Methodology.....	1
2.1 Study Area	1
2.2 Habitat Stratification	1
2.3 Survey Method	2
2.4 Survey Execution	2
2.5 Data Analysis	3
3. Results.....	3
3.1 Survey Conditions	3
3.2 Coverage and Habitat Stratification	3
3.3 Demography and Density	4
4. Conclusion and Recommendations	4
References	6



List of Figures

Figure 1. Stratified habitat in Moose Management Area 91. The terrain map is overlaid with high-density habitat, shown in red; low-density habitat, shown in yellow; and non-habitat, shown without a colour overlay. The flown flight path is shown in black, and the arrow indicates the direction of flight. 2



List of Tables

Table 1. The habitat data collected at the site of moose observations.	4
---	---



Executive Summary

In February 2026, the Torngat Secretariat conducted a moose classification survey in Moose Management Areas (MMA) 91 (Kaipokok). The survey used a stratified habitat classification methodology, incorporating previously documented Inuit Knowledge. The goal was to maximize moose observations, assess population growth through the calf-cow ratio, and to examine the adult moose sex ratio.

The flight plan was based on likely moose habitats mapped in 2024 using satellite imagery, which incorporated adjustments from local hunters in 2023. The stratification map categorized areas into high probability, low probability, and non-habitat zones. The flight path aimed to cover maximum high-probability habitats and revisit previous moose sightings. The team could adjust the flight plan to survey areas that the stratification did not identify but were deemed as probable moose habitat. Daily flights were based out of Hopedale, with additional refueling occurring in Makkovik in the southern portion of the MMA.

The aerial survey covered 2,609 km in 24 hours of flight from February 16 – 23, 2026. Fifty-two moose were observed and classified by age and sex. The adult sex ratio was 79 bulls per 100 cows, and recruitment was 37.5 calves per 100 cows.



AngajukKaunet Naillititsiutinga

Februarami 2026, tâna Tungait Aulatsijillaget suliatSaKalauttut moose-inik nalunaigumatlugit Kaujisatlutik ilinganiKajumut Moose Aulatsinik Ininganik (MMA) 91 (Kaipokok). Tainna Kaujisannik atutlutik avittutausimajunut inigijauKattajunut nalunaigutinnik piusiKatlutik, ilijautlunillu sivungani allaKutuliuttausimajut Inuit Kaujimausigijangit. Tainna tugâgutigijanga imailingasimavuk angilligiatigiamut moose takujauKattajunut, Kimiggugiamik Katsinut pigusimakkomangâmmik taikkutigona nogganut kititanginnut, ammalu Kimiggugiamut pigugesimajunut moose-et Kanuittoningillu.

Tâna tingijokkinik pannaigutinga ilinganiKasimajut moose-et inigigajakkotanginnik allanguattausimajumut nunanguat 2024-imi atutillugit sâtilaittikoKattajunut atjinguangit, atuttautlunillu âkKigiattausimajunut nunalet pinasuattinit jâringani 2023. Tainna avittutausimajut nunanguak atittâtausimajut ininginnik iluanut puttujogasugijaujunut taikanegajakkotunut, ammalu inigijauKattangitunut killiniattausimajut. Tâna tingijokkut pannaigutingata akKutinga tugâgutiKasimajut anginitsaugasuattumut kamagiamut inigijauKattagajakkotunut ammalu aivigigiallulugit sivungagut moose-et takujaupvigisimajanginnut. Taikkua iliget âkKigiattisigajattut tingijokkut pannaigutinganik Kaujisagiamut iniujunut avittutausimajut nalunaitsilaungitut tâvatuak isumagijausimajut immaKâ moose-inut inigijauKattaninginnik. Ullu tamât tingijokkoKattalauttut iniKatlutik Hopedale-imi, ilagiallulugit utsutâKattatillugit Makkovimmi siKinganingani ilangata inigisimajangita MMA.

Tainna tingijokkut Kaujisannik kamasimajut 2,609 km 24 sitontinik tingijokkosimajut pigiannimit Februa 16-23 2026. Fifty-two moose-et takujausimajut ammalu nalunaittausimajut jâringitigut ammalu Kanuittoninginnik. Taikkua pigullagisimajut kititangit imailingasimajut 79 angutialuit ammau atunik 100 noggalet, ammalu noggakuluit imailingasimavut 37.5 atunik 100 noggalinnut.



1. Introduction

Nunatsiavut is in northern Labrador and spans 72 520 km². The region includes four Moose Management Areas (MMAs), defined by the Torngat Wildlife and Plants Co-management Board (TWPCB): MMA 88 (Backway), MMA 89 (Rigolet), MMA 91 (Kaipokok), and MMA 92 (Nain). Here, we report on the results of the MMA 91 aerial classification survey conducted in February 2026.

The low density of moose makes population monitoring challenging in Nunatsiavut, however, classification surveys provide recruitment rate data to monitor population trends. It is important to note that the information gathered is only a part of what is needed to make wildlife management decisions. It complements other sources of information used to manage wildlife in Nunatsiavut, including Inuit Knowledge and wildlife management processes undertaken by the TWPCB and its co-management partners.

2. Methodology

2.1 Study Area

MMA 91 is the largest management area in Nunatsiavut, encompassing 19,020 km² from Flowers Bay in the north, from the Labrador coastline to Harp Lake and Double Mer Mountain in the west and south. This MMA lies within the Taiga Shield ecozone, which is characterized by a subarctic climate, and represents the northernmost range of the eastern moose. The terrain is characterized by its coastal cliffs, rounded mountains, and sheltered valleys with numerous lakes and wetlands (Riley et al., 2013). The dominant vegetation in this region is black spruce and lichen forests. Natural disturbance in this area is most prevalent in the form of several extensive burn wood areas found along Adlavik Brook, Big River, Makkovik River, and Kaipokok River.

2.2 Habitat Stratification

The 2026 survey of MMA 91 used the same habitat stratification layer previously developed for the classification surveys in MMA 91 (2024), and MMAs 88 and 89 (2025). Habitat characteristics from recorded harvest locations were extracted using the available land cover and landform data from the 2020 Land Cover of Canada (CCRS) dataset and the Labrador Nature Atlas (NCC). These landform and land cover variables were then summarized into 1 km² cells across the survey area and defined as high-density, low-density, or non-habitat categories.

Suitable landform variables included elevation features between 0 and 300 meters, dry and wet flats, valley toe slopes, north and south-facing lower-side slopes, and waterbodies. Suitable land cover variables consisted of broadleaved and deciduous forests, needle-leaved evergreen forests (>15%), mixed leaf-type tree cover (>15%), and waterbodies.

Cells were classified as high-density if suitable habitat comprised more than 60% of the area. Cells with 40-60% suitable habitat were classified as low-density, while those with less than 40%

suitable habitat were designated as non-habitat and excluded from the survey area. Non-habitat areas mainly included barren uplands, mountainous regions, rocky coastal zones, and steep slopes. Cell classifications were then visually validated using satellite imagery. See Figure 1 for details on habitat stratification.

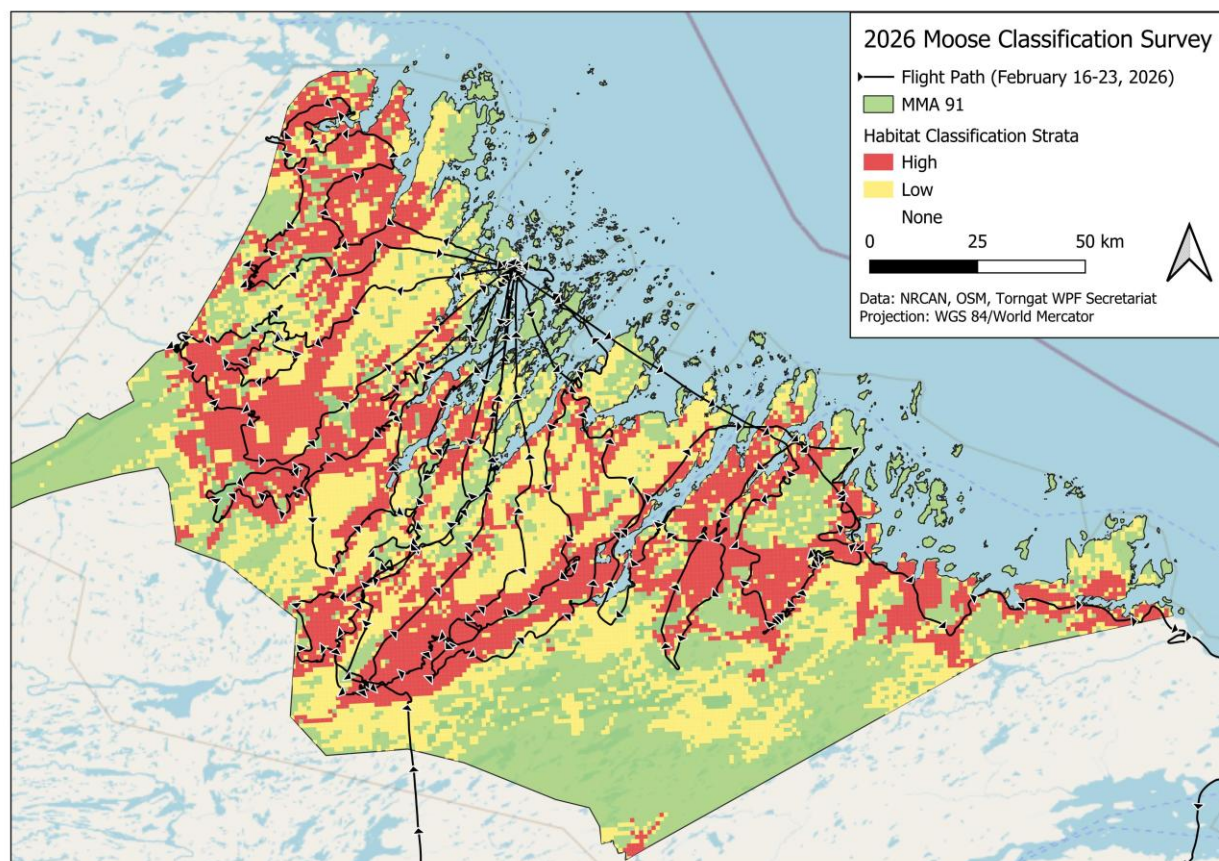


Figure 1. Stratified habitat in Moose Management Area 91. The terrain map is overlaid with high-density habitat, shown in red; low-density habitat, shown in yellow; and non-habitat, shown without a colour overlay. The flown flight path is shown in black, and the arrow indicates the direction of flight.

2.3 Survey Method

Using the stratified habitat classifications (Figure 1), a proposed flight line was developed to follow high-density areas that naturally followed landscape features like rivers and forest corridors. Efforts focused on maximizing time over high-density habitat and allowed freedom for the field team to opportunistically deviate from the flight path to areas deemed as particularly suitable.

2.4 Survey Execution

Survey flights were conducted at approximately 80-100 m above ground level at a speed of 80-100 km/h in an A-Star B2 with three observers plus the pilot. While flying along the proposed flight path, if an observer saw moose tracks, they verbally reported them to the group. The moose

tracks were followed until a moose was encountered, and on the occasion that the moose was still not observed, circles were flown around the freshest tracks to try to observe additional track networks or a moose that may have been missed.

All moose were classified by sex and age based on body size and the presence/absence of a vulva patch and antlers. A unique identifier, Sight ID, was assigned for each moose observation, and the time, date, species, group size, and sex and age classification (adult cow, adult bull, calf, unknown adult, unknown) were recorded. Habitat type, percent forest cover, slope, and snow depth were visually estimated at each observation. Environmental data (*i.e.*, air temperature, cloud cover, visibility, snow cover, light type and intensity) was recorded at the beginning of each survey day. Flight lines were followed on an iPad using ArcGIS Field Maps, and tracks were recorded at two-second intervals using a Garmin Montana 700i with the downloaded map.

2.5 Data Analysis

Demographic ratios and recruitment rates were calculated using all moose classified by age and sex.

3. Results

3.1 Survey Conditions

Surveys were conducted with clear visibility, although light intensity ranged between medium and low light for the first two days of the survey. The study area had complete snow coverage with the most recent snowfall occurring three days prior to the survey start. High winds and flurries occurred on February 20th, which obscured old tracks midway through the survey. The temperature decreased throughout the survey period and ranged from -4°C to -15°C at the start of the flights. The survey was flown in a total of 24 hours over five days, covering 2,609 km.

3.2 Coverage and Habitat Stratification

Habitat stratification methodology assumes that moose space use can be accurately predicted based on habitat type and behaviour. This considers the suitability of winter forage, complementary moose behaviour studies, and Inuit Knowledge of moose behaviour in late winter. Most moose (65%; Table 1) were observed in high-density cells, which are assumed to have the most suitable habitat. The highest percentage of moose were observed in coniferous forests (48%), followed by mixed wood (19%), burns (14%), and rivers (14%). Lakes and deciduous forest contained 4% and 2% of moose observations, respectively.



Table 1. The habitat data collected at the site of moose observations.

		Number of Moose Observed	Proportion of Total Moose Observed
Stratum	High-density	34	0.65
	Low-density	9	0.17
	Non-habitat	9	0.17
Habitat	Burned	7	0.14
	Coniferous	25	0.48
	Deciduous	1	0.02
	Lake	2	0.04
	Mixed Wood	10	0.19
	River Valley	7	0.14
Canopy Cover	0%	2	0.04
	25%	14	0.27
	50%	20	0.39
	75%	16	0.31
Snow Depth	Shallow	8	0.15
	Medium	17	0.33
	Deep	27	0.52
Slope Appearance	Flat	23	0.44
	Gentle	8	0.15
	Medium	18	0.35
	Steep	3	0.06

3.3 Demography and Density

A total of 52 moose were observed at 32 sites in MMA 91: 19 males, 24 females, and nine calves. The adult sex ratio was 79 bulls per 100 cows. Calves represented 17% of the population, with a recruitment rate of 37.5 calves per 100 cows. One instance of twins was observed, representing a twinning rate of 12.5%.

4. Conclusion and Recommendations

From February 16-23, 2026, a moose classification took place in Moose Management Area 91 (Kaipokok) using a stratified habitat classification method to direct survey effort. The study area was stratified into high-density, low-density, and non-habitat using land cover and landform data in conjunction with previously documented Inuit Knowledge. A suggested flight path was developed to maximize the coverage of high-density habitat. This path allowed the team to

survey areas opportunistically to increase the number of moose observed and classified. A classification survey approach does not generate an estimate of density or abundance.

A total of 2,609 km was flown. Fifty-two moose were observed and classified by age and sex. The total moose observed in 2026 increased from the nine moose observed during the previous classification survey in MMA 91 (TWPCB 2024). The adult sex ratio in 2026 was 79 bulls per 100 cows, a slight increase compared to 75 bulls per 100 cows in 2024. The recruitment rate however decreased in the most recent survey from 50 calves per 100 cows (2024) to 37.5 calves per 100 cows (2026). Individual estimates of recruitment are considered “snapshots” in time and will vary from year to year. Continued monitoring is required to assess calf survival and general population trends over time.

To follow up on the classification, we present the following recommendations for future monitoring efforts:

- Compile all survey and classification information.
- Develop a monitoring strategy with co-management partners.



References

- Riley, J.L., Notzl, L., and Green., R. 2013. Labrador Atlas: Ecozones, Ecoregions and Ecodistricts. Vol. 2. Toronto, Canada: Nature Conservatory of Canada.
- Torngat Wildlife and Plants Co-management Board. 2024. Results of moose aerial classifications in Moose Management Area 91 (Kaipokok) (February 1 - 5, 2024).

