

Chenery et al., 2022. Improving widescale monitoring of ectoparasite presence in northern Canadian wildlife with the aid of Citizen Science.

Supplementary materials S1

Yukon Winter Tick Monitoring Project Sample Kit

Description and template materials for the Yukon Winter Tick Monitoring Project (YWTMP) hide sample kit.

Collecting a sample from the areas of known high tick-abundance on an animal, namely the neck and shoulder region or rump, is a common means of assessing winter tick presence (Samuel, 2004; Sine et al., 2009). This kit is designed to obtain a 40 x 20cm section of moose or caribou hide from the right shoulder of the animal, so that it can be visually assessed for winter ticks (*Dermacentor albipictus*).

Note that full host burden (full body tick density estimate) cannot be assessed from this method, which provides a coarse approximation of relative tick numbers per host and presence only data.

Materials needed

Large Ziploc™ bag (26.8 x 27.3cm)

Submission details label (*Appendix A*)

Nitrile gloves (x1 pair, Large size)

Paper template: sample location template & instructions (*Appendix B*)

Kit assembly

1. Label Ziploc™ bag with submission label. Ensure that unique identifier is written into the Sample Kit ID field, and recorded in the lab spreadsheet.
2. Print double-sided paper instructions and template and trim excess paper following guidelines.
3. Place template and one pair of nitrile gloves inside the bag and seal.

Literature cited:

- Samuel, W. M. (2004). White as a Ghost: Winter ticks and moose. Natural History Series. Alberta: Federation of Alberta Naturalists.
- Sine, M., K. Morris and D. Knupp. (2009). Assessment of a line transect field method to determine winter tick abundance on moose. *Alces* 45: 143–46.

Section A. Submission Kit Label

Sample kit ID: _____



Kill date: _____

Species (circle): **CARIBOU** **MOOSE**

Sex (circle): **MALE** **FEMALE**

Kill location (Latitude/Longitude - please be as specific as possible): _____

Instructions:



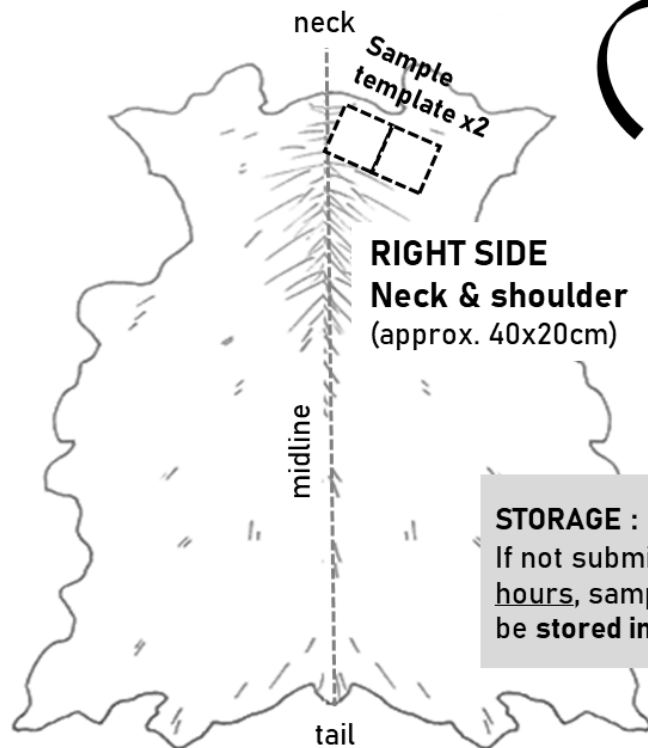
Yukon
Winter Tick
Monitoring Project

Turn over
for Template

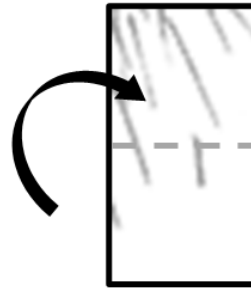
Within 6 hours of kill

Step 1. CUT SAMPLE

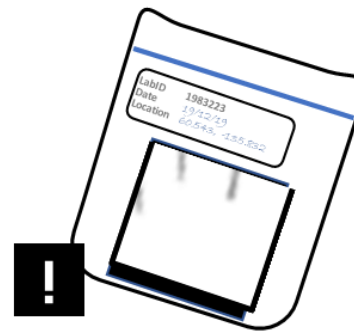
Cut 1 piece of hide approx.
40x20cm (use template)



Step 2. FOLD SAMPLE



Step 3. BAG SAMPLE



Please ensure bag
is fully sealed, and
that you have
completed the
label on the
sample bag,
including:

- Kill DATE
- Kill LOCATION*

** Please be as specific
as possible, as this
helps us to find the ticks
in the landscape.*

STORAGE :

If not submitting within 24
hours, sample bags can
be stored in the freezer.



- Note - all information received will be kept confidential.

[OFFICE USE]

Printing instructions :

- print double-sided
- cut this edge off
- fold so that
"Instructions"
title is clearly
visible
- place leaflet in
sample bag.

Section C. Hide sample kit template and instructions (side 2)



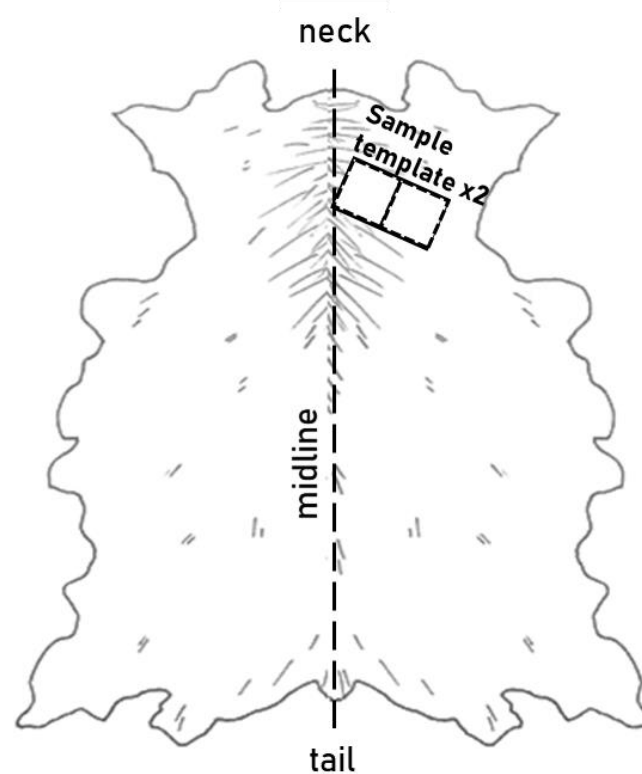
Yukon
Winter Tick
Monitoring Project

Turn over for
full
instructions

Sample Template

Cut approx.
2x size
(40 x 20cm)

RIGHT SIDE
neck & shoulder
region



Approx. 20cm

Approx. 20cm