

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.

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#### 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:

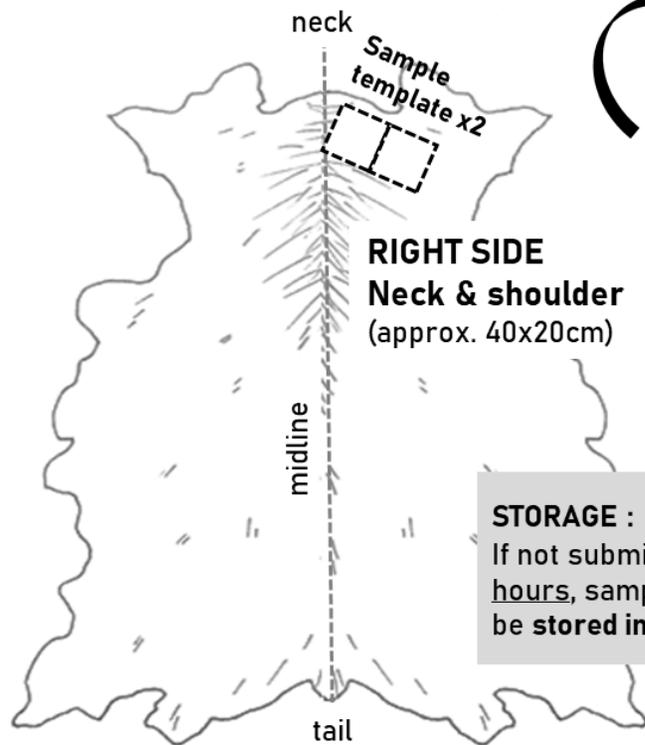


Turn over  
for Template

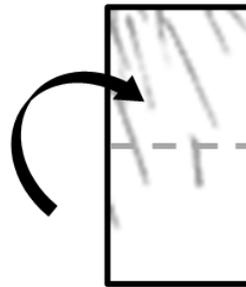
**Within 6 hours of kill**

## Step 1. CUT SAMPLE

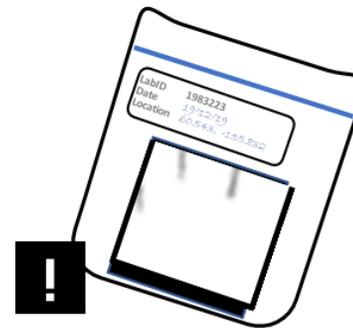
Cut 1 piece of hide approx.  
40x20cm (use template)



## 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.

[OFFICE USE]

### Printing instructions :

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

**- Note - all information received will be kept confidential.**

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

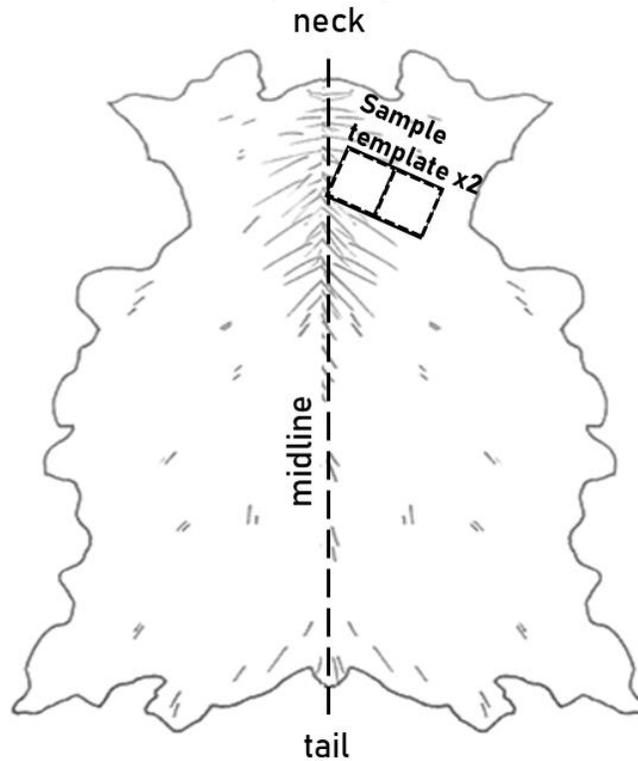


Turn over for full instructions

# Sample Template

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

RIGHT SIDE  
neck & shoulder  
region



Approx. 20cm

Approx. 20cm