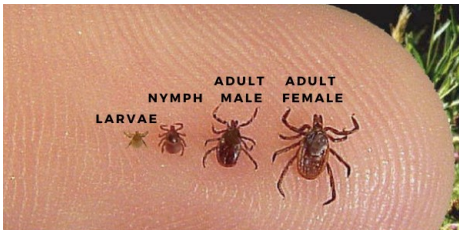
Updated 23 April 2019

Tick Collection Guide for Small and Large Mammal Biologists

Ticks in Alaska can be found on small and large mammals, and birds. Small and large animal movement creates opportunities for tick and tick-borne pathogen dispersal. Moreover, wildlife can be reservoirs of tick-borne pathogens that cause disease in humans and animals. In Alaska, the arrival of the winter tick (*Dermacentor albipictus*) is a major concern. This tick multiplies rapidly on moose hosts, leading to substantial infestations that cause anemia and hair loss. The moose tick has been found in the Yukon on elk, moose, mule deer, and other wildlife. The migration of mule deer into the Interior of Alaska from Canada may bring moose tick into the state.

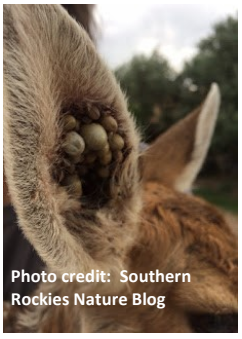
The Office of the State Veterinarian, Alaska Department of Fish & Game, and researchers at the University of Alaska are working together to understand the role of ticks and tick-borne pathogens in Alaska. The **Alaska Submit-A-Tick Program** collects tick submissions from the public, veterinarians, and wildlife biologists for species identification and pathogen testing. Tick submissions are included in a long-term database of ticks found in the state.

We recognize that tick collection is an additional task during a busy field season and appreciate your contribution to this surveillance effort. This guide was developed to assist with the collection and submission process of ticks found on mammals.



Screening small and large mammals for ticks

When searching for ticks on mammals, take extra care to look near the ear canals, nape, mandibular area, perimeter of the eyes, and feet of each animals. Ticks may be attached (i.e. feeding) or unattached. Attached ticks will likely be engorged and more visible than unattached ticks. Ticks go through three life stages (larva, nymph, and adult), and they look slightly different at each stage. Ticks are very small. Adult ticks are about the size of an apple seed, nymphs are about the size of a poppy seed, and larva are the size of a grain of sand. If you aren't sure if what you found is a tick, feel free to send it in, and we will identify it for you.



Tick removal and collection

1. Comb through the mammal's fur with your fingers to find ticks. Part fur so you can see the skin surface.

2. Using fine pointed tweezers, pluck off each tick. Gently grasp the tick as close to the skin's surface as possible, and pull upward with steady, even pressure. Do not twist or jerk the tick because this can cause the mouthparts to break off and remain in the skin.

3. Place dislodged ticks into a vial. Other clean, hard-sided containers can be used. Ziploc bags will work in a pinch, but it is easier for ticks to be crushed during transport.

Note that **multiple ticks** can be placed in the same vial (or container) if they are from the **same animal.** Please put ticks from different animals into different containers. If you are submitting multiple vials, be sure to number each vial and include the number on the submission form.

4. Fill out the *Alaska Submit-A-Tick form*. This form can be found below or at http://dec.alaska.gov/eh/vet/ticks. If you have ticks from more than one animal, record your contact information on the *Submit-A-Tick form* and then use the *Biologist Extension form* to record the information about tick submissions.

5. Send ticks and completed forms to the Office of the State Veterinarian:
5251 Dr. Martin Luther King Jr. Avenue, Anchorage, AK 99507

Thank you for your participation! Contact us at *alaskaticks@alaska.edu* to request sample vials, shipping materials, or if you have any questions.

The Winter tick has been found on wildlife in the Yukon. If you see a moose with hair loss, note the location, take a photo if possible, and immediately contact Dr. Kimberlee Beckmen (kimberlee.beckmen@alaska.gov) or ADF&G

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State of Alaska Submit-A-Tick Form

This form should be used to submit ticks that have been found in Alaska on people, wildlife, pets, or in the environment. Ticks that are submitted through this program will be included in a long-term database of ticks found in the state. Tick identification and lab testing is most effective on fresh samples, so we ask that you send in your submissions as quickly as possible. Individuals interested in receiving notification regarding tick identification of submitted specimens should include their contact information below. This service is ONLY for surveillance purposes, NOT for diagnostic purposes.

Method of submission: ☐ Direct mail to Office of the State Veterinarian

Drop-off: ☐ Office of the State Veterinarian ☐ Alaska Department of Fish and Game Office:_____ *(Which location?)*

☐ Veterinarian:_____ *(Clinic name)* ☐ Other:_____

Instructions for tick submission

1. Put the tick into a clean, small plastic or metal container (i.e., vial or small pill bottle).

2. Place the container into a Ziploc bag. Place the bag in an envelope or small box for shipping.

3. Complete this form and mail it with the tick to the Office of the State Veterinarian*:* **5251 Dr. Martin Luther King Jr. Avenue, Anchorage, AK 99507**

OR

Deliver (both the form and tick) to a local Alaska Department of Fish and Game office or veterinarian.

Find your nearest ADFG office here:
http://www.adfg.alaska.gov/index.cfm?adfg=contacts.main

OFFICE USE ONLY

Intake ID: |___|___|___|___| _ |___|___|___|___|

Number of ticks in sample: _____

Date Processed: _____

Notes:

Please provide the following information about your tick submission:

Date the tick was collected: _____

Describe the geographic location where you or your pet likely encountered the tick or the location where you found the wildlife (landmarks, GPS coordinates, address, zip code, etc.):

_____

_____

Tick was found on: ☐ Human ☐ Dog ☐ Cat ☐ Other animal: _____

☐ Environment (describe where you found tick): _____

If the tick was found on a person or an animal, was the tick attached (feeding)? ☐ Yes ☐ No

Has anyone in your household (including pets) traveled outside Alaska in the past 2 weeks?

☐ No ☐ Yes, where?_____

Approximate dates of travel? Leave _____ Return_____

Has anyone in your household (including pets) traveled within Alaska in the past 2 weeks?

☐ No ☐ Yes, where?_____

Approximate dates of travel? Leave _____ Return_____

Additional information (optional - put additional comments on back):

UNIVERSITY of ALASKA
Many Traditions One Alaska

Contact information for the individual or household submitting ticks
(optional, but necessary if you would like to receive tick identification)

Name _____

Phone _____

E-mail _____

Thank you for your submission.

We will contact the submitter for more information if needed. Tick identification results will be sent to the email address provided, or we will call with identification results if no email address is provided on this form. For questions about this form, please contact the project team at alaskaticks@alaska.edu. Additional information about ticks and tick-borne diseases in Alaska can be found at http://dec.alaska.gov/eh/vet/ticks.

Alaska Submit-A-Tick Biologist Extension Form Biologist Name:_____

The two-page extension to the Alaska Submit-A-Tick form is for biologists to record ticks from multiple hosts. Please remember to include a completed Alaska Submit-A-Tick form with this extension page so that we have your contact information. You can either record tick data here or alter your data sheets to include these variables and provide a copy of those data alongside tick submissions. Note that we also ask you to document your sampling effort and the total number of each species you handle on Page 2 of this form. This will allow us to calculate the prevalence of ticks by wildlife species.

Animal Species ID *	Number of ticks found on animal	Tick vial number (you assign this number)	Animal species	Location of collection (GPS coordinates, description, etc.)	Date of collection

* Animal Species ID can be the band ID , ear tag, etc. We need an ID number that links back to your wildlife database in the event that we have questions about a particular sample.

For questions about this form, contact: Micah Hahn (*mbhahn@alaska.edu*) or *alaskaticks@alaska.edu*

Record the number of all captured animals by species (including those not parasitized with ticks).

Description of sampling effort (e.g. Number of days of trapping, Number of hours)	Animal Species	Total number of animals captured

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