

Tick Collection Guide for Ornithologists



Ticks in Alaska can be found on small and large mammals, and birds. The seasonal movements of migratory birds provide opportunities for tick and tick-borne pathogen dispersal from other parts of the world. Moreover, birds can be reservoirs of tick-borne pathogens that cause disease in humans and animals. Several non-native tick species have been found in Alaska, including species that commonly parasitize birds.

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 birds.

Screening birds for ticks

When searching for ticks on birds, take extra care to check auriculars, nape, perimeter of the eyes and mandibles, and vent of 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. Part feathers with fine tipped forceps to visualize the skin surface. You can blow a steady stream of air to displace feathers while you are removing a tick.
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.

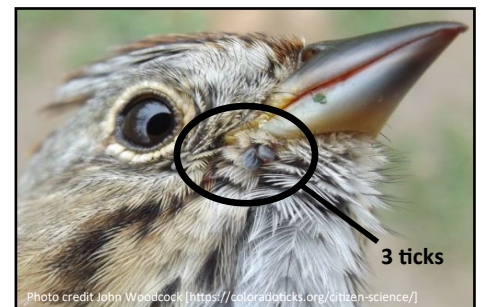
Note that **multiple ticks** can be placed in the same vial (or container) if they are from the **same bird**. Please put ticks from different birds into different containers. If you are submitting multiple vials, be sure to number each vial and include the number on the submission form.

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 bird, 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



Three life stages of ticks: larvae, nymph, and adult



Thank you for your participation!

Contact us at alaskaticks@alaska.edu to request sample vials, shipping materials, or if you have any questions.

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

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