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MAINE
Cooperative Extension



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4-H Tick Project Collection Instructions

Thank you for being part of the 4-H Tick Project! Please follow the instructions as closely as possible so that sampling among participants is consistent. Don't hesitate to contact us if you have any questions.

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PREPARING TO SAMPLE

We ask that you do not wear insect repellent or repellent treated clothing while sampling. However, if this is not possible, please try not to get any on the drag cloth and make a note of it on your datasheet. You should consider dressing in light colored clothes so that you can see and remove ticks crawling on you after you finish collecting. You will need your drag cloth, pre-labeled vials of alcohol, tweezers, a stopwatch or phone to record time and GPS coordinates.

DRAG SAMPLING

Drag sampling involves a person walking through tick habitat while pulling the drag cloth over vegetation. Ticks that are actively seeking a host climb onto the tops of leaf litter and vegetation and wait for a host to brush by. As the drag cloth pass over the tick, the tick latches onto the cloth thinking it is a host. Ticks can become dislodged from the cloth while continuing to sample, so frequent checks of the drag cloth are necessary. Please watch the instructional video for details on how to perform frequent checks.

WHERE TO SAMPLE

Participants should choose the sampling sites based on their experimental design and/or curiosity about tick prevalence in their area. Pull the drag cloth over the top of leaf litter and vegetation less than three feet tall. Avoid areas of bare earth because ticks use vegetation (such as dead leaves, grasses, & scrub brush) to climb on when seeking a host. As much as possible, do not go over the same area more than one time during each collection period.

WHEN TO SAMPLE

Sampling should take place during the fall, spring, and/or summer months. Do not sample during or after rain when vegetation is wet enough to saturate the drag cloth. Sample during daylight hours, ideally between 10-4. We understand this time doesn't work for everyone, so sample when you can as close to this time frame as possible but don't sweat!

HOW TO SAMPLE

Walk at a slow, "wedding march" pace with the drag cloth for a total of 20 minutes on each collecting day. If you can't drag for the full 20 minutes, that is okay, drag as long as time allows. Stop every 60 seconds to inspect the cloth. Pause your timer while you are inspecting the drag cloth. Look on both sides of the cloth for ticks and search the cloth using a grid search pattern. Look closely as ticks can be very tiny, many are only about the size of a poppy seed. Collect all tick species and life stages using the tweezers. Place collected ticks into your pre-labeled vial of alcohol. After inspecting the cloth, unpause the timer, and continue to walk with the drag cloth. Repeat this process until you have a total of 20 active collecting minutes, or for as long as time allows.

AFTER SAMPLING

Immediately after sampling, record all information on your datasheet. If your drag cloth has picked up debris during sampling, you may wish to remove it with a lint roller before the next sampling period as this will make it easier to see ticks. You can leave your drag cloth in a hot sunny location, such as a car hood, for an hour to kill any remaining ticks, or remove the dowel and place in the dryer on high heat for 10 minutes. You may take the ticks out of the vial if you wish to conduct a Tick ID activity - just make sure they are returned to the correct vial when you're done!

VIALS

Vials contain 70% ethyl alcohol, which is similar to rubbing alcohol. If you spill the alcohol, you can replace it with rubbing alcohol. Follow the same precautions you would with rubbing alcohol. After closing the cap, seal the vial with the piece of parafilm provided to you. To use parafilm, remove the paper backing, stretch it around the cap, and press it against the vial for a tight seal.