Quick Guide for Participants

Program Contact:
tickblitz@gmail.com
Outline for Today’s Training

• Background and Purpose of the Tick Blitz
• Contents of your Tick Blitz kit
• Collection Methods / Sampling Protocol
  • Who, What, When, Where, How
• Question & Answer Session
Who We Are

Cornell University Department of Entomology

New York State Integrated Pest Management Program

Northeast Regional Center for Excellence in Vector-Borne Diseases
What is a Tick Blitz?

Citizen Science Opportunity

• Get community outdoors
• See what types of ticks are in your area
• Educate the public about ticks and potential diseases
• Quick & efficient way to collect ticks across a large area
Why a Tick Blitz in New York?

Blacklegged tick

Asian Longhorned tick

Lone Star tick
Ticks We Are Looking For

Amblyomma americanum (Lone Star ticks)

Asian Longhorned tick

https://tickencounter.org/tick_identification/tickid_nonflash
Why Do These Ticks Matter?

Lone star tick

- Human Ehrlichiosis
- RMSF
- Tularemia
- Bourbon Virus
- Heartland Virus
- Alpha gal Syndrome

Asian longhorned tick

- Bovine Theileriosis
- Other diseases currently unknown
- Known to bite pets
Ticks you May Also Come Across

Blacklegged Tick or Deer Tick (Ixodes scapularis)

American Dog Tick (Dermacentor variabilis)

Gulf Coast Tick (Amblyomma maculatum)
Tick Blitz Event: Location

Capital Region
- Albany
- Columbia
- Greene
- Rensselaer
- Schenectady
- Schoharie

Finger Lakes Region
- Cayuga
- Chenango
- Cortland
- Delaware
- Madison
- Monroe
- Onondaga
- Otsego
- Tompkins

Hudson Valley
- Dutchess
- Orange
- Putnam
- Rockland
- Sullivan
- Ulster
- Westchester

Long Island
- Nassau

New York City
- Bronx
- Kings
- New York
- Queens
- Richmond
2023 New York State Tick Blitz

• Sample at least once between June 12 and June 23, 2023

• You can sample one time, or up to seven times – one sampling event per day

• Do not sample the same location more than once per day

• Need to collect for a total of 300 meters (984 feet) each time

• Ticks you send back to Cornell University will be identified and results shared later in the summer
Tick Blitz Kit: What Is In It?
Other Items You May Consider Bringing...

- **Clipboard** – writing surface for your collection sheet
- **Safety vest / bright clothing** – if sampling near roads
- **Trash bag** – to store your tick drag during transport
- **Water and snacks**

**YOU MAY NEED ADDITIONAL:**
- Ziploc bags
- Lint rollers
Habitat Considerations for Sampling Our Targeted Tick Species

GOOD HABITAT

- Forest edges
- Grassy areas (tall or short)
- Meadows / fields
- Pasture

BAD HABITAT

- Wooded areas with leaf litter
How to Pick a Sampling Location

• Think of places that are:
  • Easy to access
  • Have lots of visitors
  • Have enough space for sampling 984 feet/300 meters
  • Areas where deer are often present

• Places to Consider
  • Public parks
    • City/Town/State
  • Recreational areas
  • Your property

• Places NOT to sample:
  • National park lands
  • Private property without permission

Have location assigned to you
  • We can provide a pre-determined sampling location at a local park
Site Selection with Google Maps – Step 1

- Enter an address in the Google maps search bar
- Switch to satellite view
Site Selection with Google Maps – Step 2

- Right click at a location on map where you want to sample and click “measure distance”
- Click to choose an end point
- Provided distance for straight line
Site Selection with Google Maps – Step 3

• Click and drag any point of the line to add curves to the straight line so it fits the actual trail
• Right click on the map and click “clear measurements” if you want to restart

• Take a screenshot for your own reference
• This is a great way to determine if an area you want to sample in has enough space to do so
How to Measure Distance on Your Phone

• Android, Google Maps
  • https://support.google.com/maps/answer/1628031?co=GENIE.Platform%3DAndroid&hl=en&oco=1

• iPhone/iPad, Google Maps
  • https://support.google.com/maps/answer/1628031?co=GENIE.Platform%3DiOS&hl=en&oco=1

• iPhone/iPad, Apple Maps
  • https://www.techgenesis.net/user-guide-on-how-to-measure-distance-on-apple-maps/
What Time of Day to Sample

Morning after the ground is dry
9:30am to 11:00am

Late-afternoon
After 3:00pm

NOTE: Be cautious sampling between 10:00am to 2:00pm
• The sun is out and strong during this time of day
  • UV light exposure can result in sunburns
  • Heat exhaustion can happen during the hottest part of the day
Additional Sampling Site Considerations

If sampling alongside a roadway:

• Always face traffic
• Wear bright clothing
What to Wear While Sampling

• Long sleeved shirts that are tucked into your pants
• Long pants that are tucked into your socks
• Boots / sneakers with the long white socks provided in your kit
• Use masking tape where your socks meet your pants
What to Wear While Sampling: Resources

• Sunscreen
• EPA-Registered Insect Repellent
  • Look for ingredients like DEET, Picaridin, Oil of Lemon Eucalyptus, or IR3535
• Clothing treated with 0.5% permethrin

https://www.epa.gov/insect-repellents/find-repellent-right-you
https://www.cdc.gov/mosquitoes/mosquito-bites/how-to-use-permethrin.html
**TICK BLITZ DATA COLLECTION SHEET**

**LOCATION:** GPS coordinates and nearest street intersection.

Example: 42.4699, -76.7942 and Tower Rd / Garden Ave., Ithaca NY

**TICKS COLLECTED PER STOP:** Indicate # of ticks placed in vial and # of lint roller sheets used at each stop.

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<th>Vials</th>
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**TOTAL # TICKS IN VIALS:**

**TOTAL # LINT ROLLER SHEETS:**

Remember! Take a photo of your collection site & collection sheet.

**LOCATION:** GPS coordinates and nearest street intersection.

Example: 41.981675, -73.918361

Poet’s Walk Park / River Rd.
How to Find GSP Coordinates on Your Phone

• Android, Google Maps
  • https://support.google.com/maps/answer/18539?co=GENIE.Platform%3DAndroid&hl=e

• iPhone/iPad, Google Maps
  • https://support.google.com/maps/answer/18539?co=GENIE.Platform%3DiOS&hl=en

• iPhone/iPad, Apple Maps
Tick Drag Overview

Make sure no repellent or permethrin gets on your tick drag!
• Insert the two PVC pipes into the sewn sleeve at the top of the tick drag
• Ensure the two pipes are securely connected with the coupler
How to Determine Your Steps

Use the mason line and stakes included in your kit to help you determine your step count

1. Place one state into the ground
2. Carry the mason line in your hand and walk forward until the line is taut. Place the second stake into the ground.
3. Now, walk the mason line and count the number of steps you take.
4. Do this five times, entering your numbers on the sampling guide sheet.
5. Add up each of your walks and then divide by 5
How to Sample for Ticks

1. Use the Sampling Guide worksheet to count the number of steps you will take to reach 10 meters
2. Walk 10 meters while pulling the drag cloth behind you
4. Record the number of ticks placed in the vial and the number of lint roller sheets used on your data collection sheet.
5. Repeat until you reach 300 meters (30 drag & checks total)
Examples of Sampling Path Layout

Example 1: One long walk

All three examples equal to a total of 984 ft sampled.
• Example 1: Sample in one straight line for 30 intervals.
• Example 2: Sample in two straight lines with 15 intervals each.
• Example 3: Sample in three straight lines with 10 intervals each.
How Often to Stop and Check for Ticks?

You will stop a total of 30 times to remove ticks from the drag.

You should stop each time you reach the step count you determined using the sampling guide worksheet.

Remember to record the number of ticks collected at each stop!

Even if you do not remove any ticks, please write 0 (zero) in the record sheet.
How to Remove Ticks from Drag Cloth

• Using Tweezers
  • Place ticks in a vial
  • Look on the next page for tips to keep the ticks in the vial while sampling

• Using Lint Rollers
  • Only use this option if you find a large number of larvae
  • Place each sheet in its own plastic Ziploc bag
  • Only use one lint roller sheet per stop & check

• Remember to check both the cloth and the rope
How to Keep Ticks in the Vial

Make a dental dam
- Place a piece of the nitrile glove over the opening of the vial and secure it with a rubber band
- Cut a slit in the glove

OR

Use a cotton ball
- Place the cotton ball over the vial opening and remove when placing a tick inside
Images from Minnesota Department of Health
Things to Do At the Sampling Location

1. Place your tick drag in a trash bag for transport

2. Add up the ticks and lint roller sheets from each stop for a grand total

3. Take a photo of the completed collection sheet & sampling area

4. Send both photos to tickblitz@gmail.com

5. Label vials and plastic Ziploc bags with your name and date
Things to Do At Home: Safety Measures

1. Conduct a tick check

2. Place the drag cloth, rope, and clothes worn while sampling in the dryer for 20 minutes on high heat

No Dryer? Try these options:

- Place tick drag in trash bag and leave in trunk of your vehicle
- Place tick drag in bathtub and run hair dryer on low speed, high heat over the fabric
- Use a local laundromat
Things to Do At Home: Tick Storage

1. Place a piece of **lightly** moistened paper towel in the vials and Ziploc bags
   - Wring the paper towel until there is no more water dripping
   - Ticks are sensitive and will die if there is too much moisture on the towel

2. Place vials and Ziploc bags in the refrigerator

3. Make sure all vials and bags are labeled with your name and the collection date

4. Only remove the ticks from the refrigerator when you are ready to mail them to Cornell University
Mailing Ticks to Cornell

1. Remove ticks from the refrigerator. Double check all vials and bags are labeled with your name and the collection date.

2. Place all ticks and completed collection sheets in the pre-labeled padded envelope.

3. Drop the envelope off at a FedEx office or drop box near you.
   - It is best to do this the day you complete all sampling for the week.
   - Find a drop location near you using this link: https://local.fedex.com/en-us/
Tick Blitz Kit Return

Please Return:
• Tick drag cloth, PVC pipe, and rope
• Silver tweezers
• Stakes and mason line
• Drawstring bag

You Can Keep:
• Magnifying glass
• Lint roller
• Repellent
• White socks
• Educational materials
• Sharpie pen

Please drop off the kit at your nearest CCE office by July 14, 2023. Please email tickblitz@gmail.com to confirm you dropped off your kit.

If you received your kit in the mail, please save the box and return the kits to the same Cornell address used to return the tick samples.
If your kit was mailed to your address...

Please send everything – ticks and all supplies – back to Cornell using the box that your supplies were delivered in.

You can use the pre-addressed FedEx label.
Items Available Online for Printing

• Most of the print materials included in your tick kit are also available on our website

• If you run short of any materials, please go online to print additional copies
2023 NYS Tick Blitz Results

- We will do our best to have results of the Tick Blitz up on our website by August 2023.
- We will be sending you an individual report with information on the ticks you collected.
- You can find the overall results on our website at the end of the summer.

[Link](https://www.neregionalvectorcenter.com/new-york-state-tick-blitz.php)