

Tick IPM Outreach and Research Activities, NYS IPM Program, 2018

Project Leader(s):

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Cooperators:

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Abstract:

Ticks and tick-borne diseases have become a significant public health issue in the Northeastern United States, including New York. With Lyme disease representing the number one vector-borne pathogen in the US, researchers are working to better understand the biology and ecology of ticks, while the medical community works toward improving diagnostic techniques and treatment. Despite these efforts, individuals continue to encounter ticks that may harbor pathogens. Therefore, starting in 2014 the New York State IPM Program established a new priority to *develop, confirm, and/or promote methods for reducing the impact of ticks in community settings in a measureable way*. By providing education about tick biology and ecology, combined with recommendations for personal protection, the goal is to reduce human interactions with ticks. To this end, the Community IPM program has engaged diverse audiences in learning about tick and host management, conducted research, assisted other organizations in disseminating their message, and applied for and received monies to create a tick outreach campaign, Don't Get Ticked, NY, launched in 2018.

Background and Justification:

Ticks are ectoparasites that require a blood meal at each stage of their development. After taking a blood meal, fully engorged ticks will fall off the host, molt to the next stage and subsequently search for their next host. This lifestyle offers opportunities for pathogens to be transferred from one host to another by the tick. Indeed, ticks are known vectors of multiple pathogens that affect humans and other animals.

The CDC released a report, [CDC Vital Signs](#), in May 2018 which shows that tick-borne diseases in the U.S. have doubled between 2004 and 2016 with New York amongst the top 20% (more than 12,856 cases). Lyme disease remains the most commonly reported vector-borne disease in the United States, and in 2017 was the sixth most commonly reported [Nationally Notifiable Infectious Disease and Conditions](#). Lyme disease is caused by a bacterial infection, which is transmitted to humans in New York only by the blacklegged tick (*Ixodes scapularis*). Each year approximately 30,000 individuals are diagnosed with Lyme disease, but evidence suggests that only 1 in 10 cases of Lyme are reported. This suggests annual infection of 300,000 individuals with Lyme disease.

Unfortunately, blacklegged ticks and Lyme disease are only one story. Research in New York's Hudson Valley, as well as other parts of the country, has shown that blacklegged ticks can also carry anaplasmosis, babesiosis, *B. miyamotoi*, and Powassan disease, and that ticks can be co-infected to transmit multiple pathogens. Furthermore, New York is host to the lone star tick (*Amblyomma americanum*) and the American dog tick (*Dermacentor variabilis*), which also carry and transmit human pathogens. Tick paralysis and alpha-gal allergy are nonpathogenic risks from tick bites, with the former being potentially fatal. The invasive Asian longhorned tick, newly discovered in New York in 2018, has the potential to vector disease pathogens, and its impact on livestock, wildlife, and humans in the U.S. is still unknown.

Combatting human, companion and farm animal exposure to tick-borne diseases centers on an IPM approach to identifying which tick species are found where, reducing tick and host habitat, managing the ticks and their hosts, and educating individuals on how to protect themselves and their companion/farm animals.

Objectives:

- Reduce human exposure to tick-borne illnesses.
- Educate homeowners, landscape and turfgrass professionals, school grounds managers, parks officials, and municipalities about the importance of monitoring and habitat modification as a first step in tick management.
- Assess school grounds for the risk of tick encounters.
- Help determine the extent of tick species ranges within NY.
- Help measure the rate of infection in wild collected tick specimens.
- Promote IPM, including monitoring and personal protection, as best management practices for avoiding ticks and tick-borne disease.

Activities:

I. Traditional Outreach

Collaboration and Information Sharing

[CIPM Grants Program Coordination](#) The 2018 CIPM Grants program attracted 18 proposals. The Community IPM Coordinating Council reviewed these proposals and ranked them in order of priority and likelihood of success for funding. CIPM funded four tick-related projects. A separate report for each funded project is available from the NYS IPM Program. Funded projects included:

- Tick Mitigation and Education at 4-H Camp Shankitunk
- TICK BE GONE: Promotion of methods for reducing the impact of ticks in area schools, and camps in Courtland County
- Field Assistant of Commercial Natural Oil Pesticides on Tick and their Associated Habitats on Suffolk County Properties
- Empowering Volunteers to Help Their Communities Reduce Risks of Tick Bites

Additionally, with funding from the Senate Task Force, through the NY State Department of Education CIPM funded seven local Tick Awareness Forums. We offered funding and support to county Cornell Cooperative Extension offices by requesting a “scope of work” for educational forums on community tick awareness. Counties funded include:

- Dutchess
- Warren and Saratoga
- Westchester
- Suffolk (and Nassau)
- Eastern Finger Lakes Region through Tompkins CCE
- Oneida
- Chautauqua
- Erie

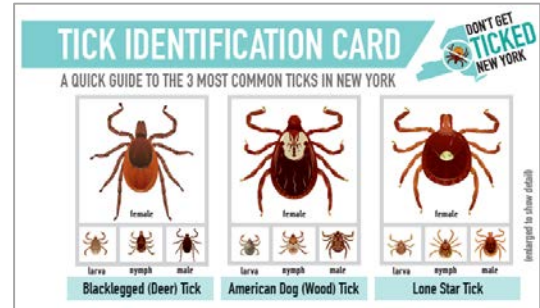
[Break the Cycle: Integrated Management of Ticks and Mosquitoes](https://nysipm.cornell.edu/resources/nys-ipm-conferences/breaking-cycle-ipm-ticks-and-mosquitoes) The Community IPM Team, led by Jody Gangloff-Kaufmann, organized the Fourth Annual NYS Integrated Pest Management conference to highlight the latest efforts in managing ticks and mosquitoes and preventing vector-borne disease. It brought together a wide range of speakers to address the scope of the problem. Dr. Laura Harrington, medical entomologist with the Cornell University Department of Entomology, our keynote speaker was joined by speakers from the NYS Department of Health, Western Connecticut State University, Connecticut Agricultural Experiment Station, and Rutgers University. Information, including pdfs of most of the presentations can be found at <https://nysipm.cornell.edu/resources/nys-ipm-conferences/breaking-cycle-ipm-ticks-and-mosquitoes>.

[Don't Get Ticked NY Campaign](#) Funded by the NYS Senate Task Force on Lyme and Tick-Borne Diseases, the Don't Get Ticked NY Campaign is an outreach and education program geared to help New Yorkers protect themselves from tick bites and tick-borne diseases. The campaign includes:



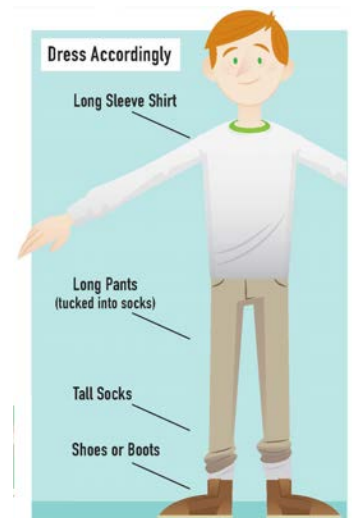
- The [Don't Get Ticked NY website](#) - the website introduces visitors to ticks and tick-borne diseases in New York. The front page highlights a Claymation video, [Life Cycle of the Black-Legged Tick \(and Lyme Disease Prevention!\)](#). The rest of the website is divided into six sections:
 - [What Do Ticks Look Like?](#)
 - [Why Should I Worry About Ticks?](#)
 - [Why Do I Have Ticks in My Yard?](#)
 - [How Do I Manage Ticks in the Landscape?](#)
 - [How Do I Protect Myself From Ticks?](#)
 - [FAQs: Frequently Asked Questions About Ticks](#)

- **Tick Identification cards** – 50,000 English and 16,250 Spanish of these wallet-sized cards were printed and distributed during presentations, tabled events, workshops, and through the Cornell Cooperative Extension network. It shows the four life stages of three primary ticks of concern in NY, actual size, how to conduct a tick check, tick removal, and what to do if bitten.



- **Tick Infographic Posters** - Thirteen infographics were developed to provide tick protection information to a low-literacy audience. Relying heavily on drawings, these pieces can be printed as hand-outs or posters to use on displays. The graphics have also been used to illustrate the [Don't Get Ticked NY website](#) and Don't Get Ticked NY PowerPoint presentations.

- [Live in Tick Country? Do a Daily Tick Check! \(features children\)](#) How to check yourself for ticks and safely remove a tick.
- [Live in Tick Country? Do a Daily Tick Check! \(features a mature woman\)](#) How to check yourself for ticks and safely remove a tick.
- [Live in Tick Country? Do a Daily Tick Check! \(features a hunter\)](#) How to check yourself for ticks and safely remove a tick.
- [Live in Tick Country? Do a Daily Tick Check! \(features a farmer\)](#) How to check yourself for ticks and safely remove a tick.
- [Prepare for Camp](#) - How to help kids avoid ticks when they go to camp.
- [Repellent Use—Repellents Help You Avoid Ticks](#)
- [Clothing Treatment—Permethrin Treated Clothing Can Kill Ticks](#) How to procure and use permethrin treated clothing that can kill ticks.
- [Protect Your Pets from Ticks and the Diseases They Carry](#)
- [Monitor for Ticks in Your Own Backyard](#)
- [Minimize Ticks in Your Yard](#)
- [Monitor for Ticks in Your School Yard](#)
- [Minimize Ticks in a School Yard](#)
- [Tick Habitats for the Three Most Common Ticks Found in New York](#)



- **Tick removal kits** – there is significant misinformation on the proper way to remove an embedded tick, compounded by the difficulty in finding pointy tweezers. Tick removal kits provide people not only with tweezers, but also with a hand lens and mirror to help conduct a tick check and a Tick Identification Card in a pouch branded with the Don't Get Ticked NY logo. Kits have been distributed at presentations, workshops, and at tabled events in exchange for a short survey that will help us gauge the success of the campaign.



- **Tick Surveys** – Two surveys were created to collect information on actions people are currently taking to prevent tick bites, their risk, and how they remove ticks. The first is the survey mentioned above associated with the Tick Removal Kits. The other focused on farmers. The results will be reviewed in 2019 and used to guide further educational efforts.

- **Tick education kits** – conducting a tick check means one should have a good idea about the size and shape of different species of ticks. Tick education kits were put together to distribute throughout the Cornell Cooperative Extension system for local educators to use in education and tabling events. Each kits contains a poppy seed bagel with ticks glued on, vials with tick specimens, a tick feel card (to encourage people to feel for ticks as well as look for them), and tick tattoos. 2018 was a challenging tick collecting year due to the weather, so we were not able to put together complete kits for every County Department of Health and BOCES office as originally planned. We also hope to create vials of Asian longhorned ticks to be included in every kit. This work should be completed in 2019.



- **Don't Get Ticked NY PowerPoint Presentations** – to ensure a consistent message through the Cornell Cooperative Extension System, a standardized PowerPoint presentation with peer reviewed information and approved images was created and made available to Extension educators.

- **Tick Awareness & Management Workshop for Schools**

Working with Eastern Suffolk BOCES and Susan Ciervo from an insurance company (who helps with workers' compensation issues) we organized a school tick workshop. The workshop consisted of about an hour of classroom learning about tick biology, ecology and management), a session learning how to build a simple tick drag mat and some outdoor time practicing the tick collection methods we discussed. A few ticks



were found on the school grounds. This combination was surprisingly effective and participants enjoyed the workshop. We will be hosting more workshops in 2019.

Presentations - NYS IPM Program staff gave 44 presentations focusing on ticks in 2018. Ticks were also mentioned in other presentations such as Dealing with Critters in the Landscape (see **Community IPM Outreach Efforts for 2018** report for full list of presentations). NYS IPM Livestock and Field Crops educators also included information about the Asian longhorned tick

in many of their presentations. Contact hours are a measure of the number of participants and the duration of time spent.

Date	Location	Conference/ Meeting Name	Presentation Title	Contact Hours
1/22/2018	White Plains/ Westchester	NYSTLA Conference & Trade Show	Keep Ticks Away!	169
Date	Location	Conference/ Meeting Name	Presentation Title	Contact Hours
2/23/2018	Batavia/ Genesee	Master Gardener training	Protecting Yourself from Ticks & Tick-borne Disease	20
2/26/2018	Chenango Forks/ Broome	State Park Winter Training Seminars	Tick IPM	21
2/27/2018	Farmingdale/ Suffolk	State Park Winter Training Seminars	Tick IPM	20
2/28/2018	Pleasant Valley/ Dutchess	State Park Winter Training Seminars	Tick IPM	12
3/1/2018	Latham/ Albany	Capital District Pesticide Applicators' Recertification Day	Keep Ticks Away	94
3/6/2018	Cobleskill/ Schoharie	Tick Update	Keep Ticks Away	17
3/8/2018	Troy/ Rensselaer	Turf and Landscape Pest Management Update	Keep Ticks Away	38
3/8/2018	Rochester/ Monroe	Monthly meeting	Protecting Yourself from Ticks & Tick-borne Disease	40
3/12/2018	Buffalo/ Erie	NYSTA Western Regional Conference	Keep Ticks Away	62
4/11/2018	Webinar	CCE Systems Conference	Don't Get Ticked! An Outreach Program Coming to You!	24
4/17/2018	Schenectady/ Schenectady	Talking Turf with Dr. Frank Rossi	Monitoring for Ticks	6
4/17/2018	Voorheesville/ Albany	Albany County Dept. of Public Works Training	Keep Ticks Away	36
4/20/2018	Delmar/ Albany	Elsmere Earth Day	Keep Ticks Away	35
4/26/2018	Colonie/ Albany	Men's Garden Club dinner meeting	Keep Ticks Away	20
5/9/2018	Hunter/ Greene	NYS DEC Campground Caretaker Training	Don't Get Ticked NY	38
5/11/2018	Albany/ Albany	Staff Safety Meeting	Don't Get Ticked NY	23
5/18/2018	Pittsford/ Monroe	Science Exploration Days	Ticks and Disease: How to reduce your risks while still enjoying the great outdoors	84
5/22/2018	Conference Call	Monthly Teach-In Call	Don't Get Ticked NY!	44
5/31/2018	Altamont/ Albany	Meet a Scientist	Don't Get Ticked NY	25
6/12/2018	Moravia/ Cayuga	Summer Camp Staff Training	Ticks – avoiding the bite at camp	75
6/16/2018	Poughkeepsie/ Dutchess	Tick-Tastic Family Extravaganza	Busting Tick Myths	76

Date	Location	Conference/ Meeting Name	Presentation Title	Contact Hours
6/26/2018	Sunken Meadow/ Suffolk	State Park Field Days	Ticks/ Pollinator habitat	7
6/27/2018	Rockland/ Rockland	State Park Field Days	Ticks/ Pollinator habitat	6
6/28/2018	Green Lakes/ Onondaga	State Park Field Days	Ticks/ Pollinator habitat	8
6/29/2018	Watertown/ Jefferson	AESHP conference	Model IPM Programs/Don't Get Ticked NY	19
7/10/2018	Guilderland/ Albany	Butterfly Station Docent Training	Don't Get Ticked NY	25
7/12/2018	Albany/Albany	Free Classes at the Co-op	Don't Get Ticked NY	6
7/13/2018	Ballston Spa/ Saratoga	2018 CTFANY Summer Meeting	Don't Get Ticked NY	35
7/24/2018	Guilderland/ Albany	Butterfly Station Docent Training	Don't Get Ticked NY	25
7/25/2018	Schenectady/ Schenectady	DEC Division of Operations Staff Training	Don't Get Ticked NY	24
7/26/2018	Stamford/ Delaware	DEC Division of Operations Staff Training	Don't Get Ticked NY	30
7/26/2018	Albany/Albany	Free Classes at the Co-op	Don't Get Ticked NY	7
8/7/2018	White Plains/ Westchester	Break The Cycle: Integrated Management of Ticks and Mosquitoes	Don't Get Ticked NY! A campaign for tick avoidance	16
8/30/2018	Fonda/ Montgomery	School Health Professional Meeting	Don't Get Ticked at School	12
10/2/2018	Rensselaerville/ Greene	NYS Conference of Environmental Health Directors	Don't Get Ticked NY	53
10/3/2018	Geneva/ Ontario	NYSACAA Professional Improvement Conference	Don't Get Ticked, NY: tick safety campaign from NYS IPM	7
10/30/18	Voorheesville/ Albany	Voorheesville Public Library	Don't Get Ticked NY	20
11/7/2018	Stony Brook/ Suffolk	Tick IPM for Schools Workshop	Ticks on School Grounds	25
11/8/2018	Voorheesville/ Albany	Master Gardener Training	Don't Get Ticked NY	14
11/13/18	Ithaca/ Tompkins	2018 Agriculture, Food & Environmental Systems In-Service	Don't Get Ticked NY	7
12/4/2018	Poughkeepsie/ Dutchess	Dutchess County Tick-Borne Disease Prevention Work Group	Don't Get Ticked NY! A campaign for tick avoidance	7
12/6/2018	Hauppauge/ Suffolk	NYSTA Long Island Region workshop	Tick Update for the Landscape Industry	90
12/17/18	Geneva/Seneca	Turf Team Meeting	Ticks, homeowners IPM guide	4
TOTAL CONTACT HOURS				1,426

Tabled Events - NYS IPM staff set up tables at fairs, trade shows, and meetings to showcase and distribute community IPM resources. Over 120,000 New Yorkers were exposed to resources during 143 hours of total time.

Date	Location	Conference/ Meeting Name	Table/Poster Theme	Estimated # of attendees	# of Event Hours
1/22/2018	White Plains/ Westchester	NYSTLA Conference & Trade Show	Keep Ticks Away!	511	9
3/3/2018	Ridgewood, NJ	Super Science Saturday	Ticks: Tiny Terrors	1,500	5
5/19/2018	Voorheesville/ Albany	Garden Education Day	Don't Get Ticked NY!	498	4
6/16/18	Poughkeepsie/ Putnam	Tackling Ticks	Don't Get Ticked NY!		
8/7/2018	White Plains/ Westchester	Break The Cycle: Integrated Management of Ticks and Mosquitoes	Don't Get Ticked NY! A campaign for tick avoidance	77	9
8/7-9/18	Seneca Falls/ Seneca	Empire Farm Days	Don't Get Ticked NY!	65,000	23
8/14-19/18	Altamont/ Albany	Altamont Fair	NYS IPM Table/Ticks	50,000	69
9/15/2018	Delmar/ Albany	Annual Fall Festival	Don't Get Ticked NY table	950	4
9/15/2018	Ithaca/ Tompkins	Ag Day on the Quad	NYS IPM Table/Ticks	40	8
10/12/2018	Syracuse/ Onondaga	2018 Professional School Health Seminar	Don't Get Ticked NY table	84	1
10/16/2018	Mayville/ Chautauqua	2018 Professional School Health Seminar	Don't Get Ticked NY table	40	1
10/18/2018	Ithaca/ Tompkins	Insectapalooza	Don't Get Ticked NY table	1,700	6
10/20/2018	Latham/ Albany	2018 Professional School Health Seminar	Don't Get Ticked NY table	57	1
10/24/2018	Poughkeepsie/ Putnam	2018 Professional School Health Seminar	Don't Get Ticked NY table	77	1
11/1/2018	Rochester/ Monroe	CCE of Monroe Co. annual meeting	Don't Get Ticked NY table	100	2
TOTAL				120,634	143

Committees: Community IPM staff represented the NYS IPM Program on different committees that address ticks and tick-borne disease issues.

- **The Lyme Advisory Board** - Matt Frye serves as the Secretary for The Lyme Advisory Board, which provides insight and information to Senator Sue Serino, Senate Chair of the Task Force on Lyme and Tick-Borne Diseases in New York State. As a group, the Advisory Board has discussed ongoing projects, upcoming events, proposed legislation and budgetary items.
- **New York State Tick and Tick-Borne Disease Working Group** - As part of a [May 2018 press release](#), Governor Cuomo directed the NYS Department of Health (DOH) to create

a new working group on Lyme and other tickborne diseases. NYS IPM staff participate on the working group including the [New York State Lyme and Tick-Borne Disease Summit](#).

- [Public Tick IPM Working Group](#) – Community IPM staff have joined more than fifty individuals from federal, state and local governments, Land Grant Universities, non-governmental organizations and others to participate in a forum for communication, networking and collaboration.
 - The group’s planned [Tick IPM Symposium](#) took place in March 2018 in Baltimore, MD in conjunction with the International IPM Symposium.
 - A new resource, [Tick Management Options](#), has been developed. NYS IPM staff have distributed hard and soft copies at conferences and workshops.
- [Northeast Center of Excellence in Vector-Borne Disease at Cornell University](#) - Jody Gangloff-Kaufmann and Matt Frye are affiliate members. In 2018, they reviewed and provided comments on a survey created by the Centers of Excellence in Vector-Borne Diseases regarding tick surveillance practices and needs.

Social Media, Blogs and Articles

The NYS IPM Facebook page has over 884 followers, and information about ticks is regularly posted to the site. In 2018, 33 tick-related posts reached over 41,778 individuals. Thirteen tick-specific articles were posted to the NYS IPM Program blogs, with ticks being mentioned in several others.

- Lampman, Joellen. [“Ticks and the freezing weather”](#) *Think IPM Blog*. Cornell University, 5 January 2018. Web.
- Woodsen, Mary. [“We give awards: IPM, excellence, and Julie Suarez”](#) *Think IPM Blog*. Cornell University, 16 January 2018.
- Woodsen, Mary. [“Pests and pupils don’t mix”](#) *Think IPM Blog*. Cornell University, 7 February 2018.
- Lampman, Joellen. [“Ticks don’t care what month it is”](#) *Think IPM Blog*. Cornell University, 22 February 2018. Web.
- Woodsen, Mary. [“The New Tick in Town \(Part I.\)”](#) *Think IPM Blog*. Cornell University, 18 April 2018.
- Woodsen, Mary. [“The New Tick in Town \(Part II.\)”](#) *Think IPM Blog*. Cornell University, 27 April 2018.
- Lampman, Joellen. [“Minimize tick risk while minimizing pesticide risk”](#) *Think IPM Blog*. Cornell University, 24 May 2018. Web.
- Woodsen, Mary. [“The low-down on ticks. Part 1A, Biology Q&A”](#) *Think IPM Blog*. Cornell University, 6 June 2018.
- Frye, Matt. [“Tick and Mosquito Repellent Safety – For You and Yours”](#) *Think IPM Blog*. Cornell University, 8 June 2018.
- Woodsen, Mary. [“Tick Trickery”](#) *Think IPM Blog*. Cornell University, 19 June 2018.
- Woodsen, Mary. [“Tick, Tack, Toe the Line: Lyme Disease and What to Do”](#) *Think IPM Blog*, New York State Integrated Pest Management Program, Cornell University, 18 July 2018

- Woodsen, Mary. "[Tick Check 1.2.3.](#)" *Think IPM Blog*, New York State Integrated Pest Management Program, Cornell University, 26 July 2018.
- Gangloff-Kaufmann, Jody. "[An Exotic Tick Could be Very Bad News](#)" *Think IPM Blog*. Cornell University, 1 August 2018. Web.
- Lampman, Joellen. "[The ABCs of Ticks on School and Childcare Grounds](#)" *The ABCs of School and Childcare Pest Management blog*. Cornell University, 22 October 2018. Web.
- Marvin, Debra. "[New Posters Available from Don't Get Ticked New York](#)" *Think IPM Blog*. Cornell University, 20 November 2018. Web.
- Lampman, Joellen. "[Tick IPM – The Dog Zone](#)" *Think IPM Blog*. Cornell University, 4 December 2018. Web.
- Lampman, Joellen. "[2018's Best of NYS IPM](#)" *Think IPM Blog*. Cornell University, 26 December 2018. Web.

Image Gallery on Flickr

A Flickr album dedicated to ticks currently has 92 pictures showing close-ups of ticks, monitoring techniques, tick habitat, and educational materials as well as 4 videos. Some of the more popular photos in this album have over 2,800 views. URL:

www.flickr.com/photos/99758165@N06/albums/72157645579157057

NYS IPM Staff Visits

When requested, NYS IPM Staff visit properties to inspect for ticks and provide tick management recommendations. The Child Safe Playing Fields Act requires that schools and child care centers obtain an emergency exemption in order to apply a pesticide and the NY Department of Health has requested monitoring to ensure that ticks are present.

Research

- **School Tick Risk Assessments** – To address the objective "Assess school grounds for the risk of tick encounters" we designed a protocol to assess the distribution of ticks on school grounds at the border between wooded areas and athletic fields. In this assessment, four zones were designated (deep woods, woods edge, 3 yards out into field and 6 yards out). We assessed tick presence and relative abundance using cotton flannel tick drags over 40 feet in each zone to capture questing ticks. We also recorded the location, species, life stage, time of day, sunlight, air and ground temperatures and the ground-level humidity. This work was performed between October 23 and November 29. Our teams visited nearly 20 schools and performed multiple assessments at each location. Data is incomplete for several reasons. The time of year allowed us to assess some adult black legged tick activity, but not nymphs and no other species, such as lone star ticks. We plan to resume this assessment in the mid-spring to form a more complete picture of tick encounter risks.

- **Tick Surveillance in Nassau County, NY** – Areas of tick activity are well known through most of New York State through State Health Department assessments and samples submitted by the public. Recently, the Suffolk County Vector Control program and Suffolk CCE documented the geographic distribution of tick presence in Suffolk County. However, there is little information about tick distribution in Nassau County. To address the objective “Help determine the extent of tick species ranges within NY” we collected and documented tick presence in nearly all the green spaces (parks, preserves, bikeways) of Nassau County from October 18 to December 21. Over that period we collected nearly 600 ticks from every corner of Nassau County. Some parks and preserves were inundated and others provided just a few. We recorded date, time, temperature and have records of steps taken (distance walked) on most days. We have sent all the ticks to Cornell’s Animal Health Diagnostic Laboratory for disease screening. Results are not yet available and will be provided and discussed in future reports.
- **Asian longhorned tick** – Newly discovered in New York in 2018, NYS IPM staff have included monitoring for this invasive tick during other surveillance work and have contributed to identifying where in NY it is found. An effort was made to try to alert livestock exhibitors at the NY State Fair to look for ticks while preparing their animals and information was distributed at the fair.

Service

The Child Safe Playing Fields Act prevents the use of pesticides on school and child care grounds without receiving an emergency exemption. NYS IPM staff are often called to visit these sites to determine the tick risk to help decision makers decide whether to approve an application.

Discussion:

Ticks and tick-borne disease represent an emerging issue in the northeastern United States. At present, the medical community is divided on several issues that relate to tick-borne disease, from diagnosis to treatment and the possibility of long-term effects from infection. While the NYS IPM Program is not equipped to address these issues, our staff members are able to assist individuals in preventing encounters with ticks and reducing the impacts of encounters that do occur. Any effort to prevent tick encounters can be seen as a way to avoid any of the current complications posed by the divided medical community.

Prevention is achieved through education, and members of the NYS IPM Program have endeavored to provide education through many channels. This includes collaborating with state and local organizations, offering lectures, and creating and disseminating information on social media. In 2018, the NYS IPM Program reached more than 1,200 people through in-person presentations, 20,586 individuals through Facebook posts, and thousands of individuals through other social media.

The Community IPM Program will continue to monitor tick populations with a focus on school grounds and parks and provide education and outreach related to tick identification and risk management through the Don't Get Ticked NY Campaign.

Samples of resources developed:

Don't Get Ticked NY website: www.dontgettickedny.org

Flickr Tick Album: <http://tinyurl.com/j5xludt>

Facebook Page: <https://www.facebook.com/NYSIPM>