



Longhorned Ticks in New Jersey: Talking Points

June 4, 2018

Situational overview

Background

In late 2017, animal health experts in New Jersey identified a *Haemaphysalis longicornis* tick, commonly known as the “longhorned tick” or “bush tick,” on a sheep in Hunterdon County. In April 2018, a longhorned tick was found on the Watchung Reservation in Union County. In May 2018, these ticks were found around a farm on Rutgers University New Brunswick Cook Campus in Middlesex County and in the grass in Mercer County. In addition, a tick collected from a dog in Union County in 2013 has now been confirmed and reclassified as a longhorned tick. Longhorned ticks are not native to the United States. However, they are a serious threat to livestock in Australia, New Zealand and countries of eastern Asia. Outside of New Jersey, longhorned ticks have been found recently in Virginia and West Virginia.

What we know now

Finding the longhorned tick in New Jersey is noteworthy because this is the first time an established population has been identified in the United States. However, since a tick found in 2013 has now been reclassified as a longhorned tick, we know these ticks have been present in New Jersey for at least 5 years, and possibly much longer. It remains unclear when or how the tick first arrived in New Jersey. Some possible ways it may have entered include entering on domestic pets (such as dogs), horses, livestock or humans.

One reason this tick is a concern is because it may pose a risk to New Jersey livestock. A longhorned tick can attach itself to various warm-blooded animals to feed. If too many ticks attach to one animal, the loss of blood can kill the animal. It has also been associated with the transmission of Theileria, a cause of disease in animals called theileriosis, which leads to anemia and sometimes death.

Residents of New Jersey should continue to protect themselves and their pets against tickborne diseases. Although the tick has transmitted disease in other parts of the world, that may not happen in New Jersey. Testing done so far on this tick in the state has been negative for disease.

What is being doing to address the issue

The New Jersey Department of Health (NJDOH) is working with the New Jersey Department of Agriculture (NJDA), the New Jersey Department of Environmental Protection (NJDEP) and Rutgers Center for Vector Biology to determine how widespread the tick is, and to investigate what the risk may be to human health in New Jersey. Ongoing activities include:

- Outreach with livestock owners, veterinarians, slaughterhouses
- Wildlife surveillance
- Tick surveillance and testing
- Focal treatment of infested areas
- Information and education
- Public tick submission/drop-off

Three main messages

1. The longhorned tick has been found in several counties in New Jersey, although it is likely distributed in other parts of the state as well. It has also been identified in other states. This is the first time the tick has been discovered in the United States.
2. The longhorned tick is a serious pest to livestock. While this tick has transmitted disease to humans in other parts of the world, more research is needed to determine if this can happen in the United States. Testing done so far on this tick in the state has been negative for disease.
3. Residents of New Jersey should continue to protect themselves and their animals against all tickborne diseases.

Actions that should be taken by public

- Keep your yard clean by mowing lawns, clearing brush and removing leaf litter to remove tick habitats.
- Apply EPA-registered insect repellent on skin and permethrin on clothing, boots and camping gear to help keep ticks off your body.
- Wear light-colored clothes to help spot ticks and wear long sleeves and pants tucked into socks to prevent ticks from getting under clothes.
- Check your body for ticks and shower after being outdoors (ideally within 2 hours) to help find and wash off unattached ticks.
- If you want to submit a suspect longhorned tick for identification, visit <http://www.state.nj.us/agriculture/divisions/ah> for submission instructions. If you are reporting longhorned ticks in livestock or wildlife, call the NJ Tick Line at 1-833-639-8425 (1-833-NEW-TICK).

Actions that should be taken by livestock owners

- If owners of livestock find a tick on an animal, they should consult a veterinarian about treating the animal for tick infestations.
- If you have questions about longhorned ticks on livestock in New Jersey, visit <http://www.state.nj.us/agriculture/divisions/ah> or call the NJ Tick Line at 1-833-639-8425 (1-833-NEW-TICK).

Actions that should be taken by veterinarians, ACOs, or animal shelters

- If veterinarians, ACOs or animal shelters find suspect longhorned ticks on an animal and want to submit it for identification, they should visit <http://www.state.nj.us/agriculture/divisions/ah>.
- If an unusual heavy infestation of suspect longhorned ticks is identified, call the NJ Tick Line at 1-833-639-8425 (1-833-NEW-TICK).

Frequently Asked Questions

General Prevention Messaging

How can I prevent tickborne diseases?

Individuals can take preventive measures to protect against tickborne diseases. Knowing where ticks live (in or near wooded or grassy areas) and walking in the center of trails can help avoid contact with ticks. Keeping your yard clean by mowing lawns, clearing brush and removing leaf litter removes tick habitats. Applying EPA-registered insect repellent on skin and permethrin on clothing, boots and camping gear helps to keep ticks off your body. Wearing light-colored clothes can help you spot ticks and wearing long sleeves and pants tucked into socks can prevent ticks from getting under clothes. Checking your body for ticks and showering after being outdoors, ideally within 2 hours, can help find and wash off unattached ticks.

Longhorned Ticks in New Jersey

What does this tick look like?

The nymphs of longhorned ticks are very small, resemble small spiders and are easy to miss. They are dark brown, about the size of a pea when full grown and can be found in tall grasses.

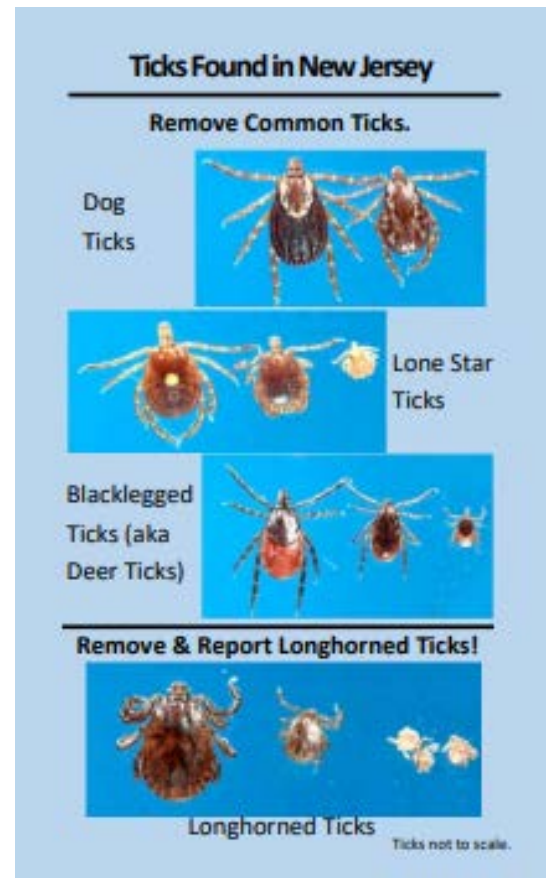


Photo courtesy of New Jersey Department of Agriculture



Photo courtesy of Jim Occi, Rutgers Center for Vector Biology

The photo above shows the difference of blacklegged or deer ticks (*Ixodes scapularis*) on the top compared to longhorned ticks (*Haemaphysalis longicornis*) on the bottom. Poppy seeds are shown in the middle to give an idea of the size of the ticks.



How did this tick get to New Jersey/the United States?

It is unclear when or how the tick first arrived in New Jersey. Possibly, the ticks could have arrived by entering on domestic pets (such as dogs), horses, livestock or humans.

What kind of habitat does this tick live in?

Longhorned ticks are typically found in open grass next to a forest or a plot of woods. This is different from the habitat of the blacklegged or deer tick (*Ixodes scapularis*), which live in wooded, brushy areas. Longhorned ticks are usually found in tall grasses.

What should I do if I find this tick?

If you think you have found a longhorned tick and want to submit it for identification, visit <http://www.state.nj.us/agriculture/divisions/ah>.

Human Health Information

What human diseases do these ticks spread?

Although longhorned ticks have transmitted disease in other parts of the world, more research is needed to determine what diseases this tick may be able to transmit in the United States. In southeast Asia, the longhorned tick has been associated with *Rickettsia japonica* (spotted fever rickettsiosis), Severe fever with thrombocytopenia syndrome virus (genetically similar virus to Heartland virus), Powassan, and Huaiyangshan virus hemorrhagic fever (reported in China). To date, testing of these ticks in New Jersey for human diseases has been negative. Transmission of all vector-borne diseases requires the presence of the bacteria or virus in animal hosts, a competent vector, and contact between humans and those vectors. The diseases this tick has been associated with in southeast Asia may not reflect the risk this tick may pose to New Jersey residents. This tick may be one additional species capable of transmitting tickborne diseases we already have in New Jersey, OR it may be able to transmit a tickborne disease we aren't yet aware of, OR it may not be capable of transmitting those diseases which are already present in New Jersey. The Health Department will continue to work with federal and state partners to determine what the impact on human health is in New Jersey.

Has the longhorned tick been tested for diseases that can be spread for humans?

Although these ticks are known to carry diseases in other parts of the world, testing to date in New Jersey has been negative.

What symptoms should I be concerned with if I think I was bitten by a longhorned tick?

Many tickborne diseases can have similar early signs and symptoms. If you have been bitten by a tick and develop any of the following symptoms within a few weeks, consult with a health care provider. Common symptoms of tick-related illnesses are: fever/chills, headache, rash, fatigue, and muscle or joint pains.

Animal Health Information

How does the longhorned tick impact livestock?

Longhorned ticks are a serious threat to livestock in Australia, New Zealand and countries of eastern Asia. Officials claim it has the potential to infect deer and livestock such as cattle, horses, goats and sheep. It is a major problem in New Zealand and transmits *Theileria*, a cause of disease in animals called theileriosis, which leads to anemia and sometimes death. A heavy longhorned tick infestation can also produce anemia in cattle.

How can I protect my animals from ticks?

For livestock, talk to your veterinarian about protecting your animals from ticks. Regularly examine your animals for ticks and try to keep animals out of areas where ticks live or are known to be infested with ticks.

Dogs are very susceptible to tick bites and tickborne diseases. Vaccines are not available for all the tickborne diseases that dogs can get, and they don't keep dogs from bringing ticks into the home. Outdoor cats are also susceptible to tick bites. For these reasons, it's important to use a tick control product on your dog and other pets as recommended by your veterinarian. To reduce the chances that a tick will transmit disease to you or your pets, check your pets for ticks daily, especially after they spend time outdoors. If you find a tick on your pet, remove it right away. Ask your veterinarian to conduct a tick check at each exam, talk to your veterinarian about tickborne diseases in your area, and ask about using tick control products on your pet. Always remember to use products according to the package instructions.

For More Information

- Longhorned ticks in NJ: <http://www.state.nj.us/agriculture/divisions/ah> or 1-833-639-8425 (1-833-NEW-TICK)
- NJDOH Vector-borne Illnesses: <http://www.nj.gov/health/cd/topics/vectorborne.shtml>
- United States Department of Agriculture Animal and Plant Health Inspection Service (USDA APHIS): <https://www.aphis.usda.gov/aphis/home>
- Rutgers University Center for Vector Biology: <http://vectorbio.rutgers.edu>
- New Jersey Department of Agriculture: <http://www.state.nj.us/agriculture>
- Southeastern Cooperative Wildlife Disease Study: <http://vet.uga.edu/scwds>