

DNREC confirms finding Asian longhorned tick for the first time in Delaware

DNREC's tick monitoring program confirms finding Asian longhorned tick for the first time in Delaware in northern New Castle County

DOVER – The Asian longhorned tick has been found for the first time in Delaware, DNREC's new tick surveillance program within the Division of Fish & Wildlife's Mosquito Control Section announced today. This tick is a known or suspected vector of various pathogens or diseases affecting humans, wildlife, and livestock in other parts of the world, particularly in its native eastern Asia. In the United States, only two instances of Asian longhorned ticks attached to humans have been confirmed, and there have been no reported instances of disease transmission to humans or animals.

During tick sampling initiated this spring by DNREC's  statewide tick program, a total of five Asian longhorned tick nymphs – immature ticks – were found in late June in northern New Castle County. Dr. Lauren Maestas, the state's tick biologist, visually identified the ticks, and his finding was confirmed through genetic analysis by the Center for Vector Biology at Rutgers University in New Jersey.

With the Asian longhorned tick confirmation, Delaware now has seven tick species of human or domestic animal health concern, with five species of primary focus: black-legged or deer ticks, lone star ticks, American dog ticks, Gulf Coast ticks, and now the Asian longhorned tick (also known as the cattle tick or bush tick). Delaware's finding brings the total number of states with recognized Asian longhorned tick populations to 12.

The Asian longhorned tick was first observed and identified in North America on sheep in New Jersey in 2017, although the Northeast Regional Center for Excellence in Vector-Borne Diseases at Cornell University subsequently determined that the species has been present in the US since 2010. The range of this invasive tick species has spread quickly, and now includes neighboring Pennsylvania and Maryland as well as New Jersey.

The Asian longhorned tick expanded beyond its native China, Korea, and Japan to New Zealand and Australia, before arriving in the United States through a variety of possible routes. This tick is native to regions with a climate similar to the northeastern United States, allowing it to survive and overwinter here.

DNREC's tick program advises taking simple steps to avoid the Asian longhorned tick, as well as other tick species, such as using insect repellent containing DEET, spraying clothing with permethrin, and wearing trousers tucked into your shoes along with long-sleeved clothing that covers extremities.

While there have been no reports of Asian longhorned tick-borne illness occurring in the United States, in other countries, bites from these ticks have made people seriously ill. According to Infectious Disease Epidemiologist Paula Eggers of the Delaware Division of Public Health, no disease-causing agents for people have been found to date in Asian longhorned ticks collected in the United States. Prevention is key to reducing tick-borne disease in humans. Checking your body for ticks daily, properly removing ticks, and showering soon after being outdoors all help to prevent tick attachment, and hence transfer of tick-borne diseases. The Division of Public Health urges anyone who develops a fever, rash, or other symptoms following a tick bite to contact their health care provider.

With regard to its effects on domestic animals, the Asian

longhorned tick is known to swarm livestock and horses in great numbers, leading to substantial loss of blood and, if the ticks are not removed, possible death of the animals, according to Deputy State Veterinarian Dr. Karen Lopez of the Delaware Department of Agriculture. Dr. Lopez added that no disease-causing agents for animals have been found to date in Asian longhorned ticks collected in the United States. Animal owners should consult their veterinarian about methods of tick prevention, and contact a veterinarian immediately if they notice signs of illness in their livestock, horses, or pets.

Asian longhorned ticks have been reported infesting wildlife, including mammals and birds. The impact of the Asian longhorned tick on wildlife health in the United States, and the role of wildlife in its spread, is currently unknown.

DNREC's tick program notes the Asian longhorned tick's three post-egg life stages (larva, nymph, adult) can be found on a range of small-to-large size mammal hosts. The species also is known to reproduce without a mate. Primary habitats for these ticks in the United States are meadows and grassy areas near forested locations. In other areas, the ticks have been found primarily outside the coastal plain, which could indicate that Delaware's piedmont region located north of I-95 is at greatest risk for establishment of this species. However, the tick could spread into Delaware's coastal plain south of I-95, though it has yet to be found there. Distribution of the Asian longhorned tick in Delaware may change and is subject to various factors, including host availability, environmental conditions, and movement by people, pets, wildlife, and livestock.

For more information about:

- Tick biology/management – Contact the Division of Fish & Wildlife's Mosquito Control Section tick program at 302-739-9917.
- Tick-related human health or medical issues – Contact

the Delaware Division of Public Health at 888-295-5156.

- Tick-related agricultural or livestock issues – Contact the Department of Agriculture’s Poultry and Animal Health Section at 302-698-4500 or 800-282-8685 (Delaware only).

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