The Connecticut Agricultural Experiment Station



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ESTABLISHED POPULATION OF THE INVASIVE ASIAN LONGHORNED TICK, AN IMPORTANT VECTOR OF HUMAN AND ANIMAL DISEASE AGENTS, DISCOVERED IN CONNECTICUT

New Haven, CT – The Connecticut Agricultural Experiment Station (CAES) is reporting the first established population of the Asian longhorned tick, *Haemaphysalis longicornis*, in Fairfield County. The Asian longhorned tick is an invasive species that was initially discovered on a farm in New Jersey in 2017, raising public and veterinary health concerns, and has subsequently been found in at least 14 other states.

The Asian longhorned tick is native to the Korean Peninsula, Japan, and eastern regions of Russia and China, and it is a major livestock pest in Australia and New Zealand, where it was introduced before 1901. It is a vector for the viral agent of severe fever with thrombocytopenia in humans, among other pathogens. Furthermore, the detection of the more pathogenic *Theileria orientalis* Ikeda genotype in cattle and in ticks in Virginia, for which the longhorned tick is a known vector, suggests additional risks to humans and livestock with the introduction and establishment of this tick species.

Phone: (203) 974-8500 Fax: (203) 974-8502 Toll Free: 1-(877) 855-2237, CAES@CT.GOV PORTAL.CT.GOV/CAES *An Affirmative Action/Equal Opportunity Employer* According to Dr. Goudarz Molaei, a research scientist who directs the CAES Passive Tick Surveillance and Testing Program "The CAES is closely monitoring the distribution and human biting activity of this newly discovered invasive tick species, as well as its potential involvement in transmission of exotic and local disease agents."

Asian longhorned ticks are reddish-brown. Adult females are 2.7-3.4 mm long and 1.4-2.0 mm wide, whereas nymphs are $1.8 \times 1.0 \text{ mm}$ and larvae are $0.6 \times 0.5 \text{ mm}$. They are a three-host tick species as each active life stage feeds on a different host. Asian longhorned ticks are generalists, feeding primarily on the most abundant hosts in the environment. Larvae and nymphs parasitize birds and small mammals and adults parasitize large animals such as cattle, sheep, goats, horses, dogs, cats, and wildlife (e.g., coyotes, gray foxes, groundhogs, white-tailed deer, raccoons, Virginia opossum). Feeding of the Asian longhorned ticks on humans has also been reported. In temperate populations, each female adult Asian longhorned tick can produce offspring—1,000 to 2,000 eggs at a time—without mating. That means individual animals could each host hundreds to thousands of ticks.

"The identification of an established population of the Asian longhorned tick in Connecticut highlights the challenge and risk to human and animal health in the state, though this risk is not limited to Connecticut. The potential is high for invasive ticks capable of transmitting pathogens of human and veterinary concern to become further established in new areas as environments continue to change. Proper surveillance, interception, and identification of exotic ticks are vital to protecting human and veterinary health.", said Dr. Molaei.

The Tick Testing Program at the Connecticut Agricultural Experiment Station is a state-supported service offered to State residents since 1990. Ticks are accepted only from residents of Connecticut and should be submitted through their local health departments. Ticks are examined for species, life cycle stage, and engorgement status in addition to pathogen testing.



Asian longhorned tick, *Haemaphysalis longicornis* (Photos by Kitty Prapayotin-Riveros (The CAES)



Asian longhorned tick, *Haemaphysalis longicornis* (nymph and adult female) (*Photos courtesy of CDC*)

Phone: (203) 974-8500 Fax: (203) 974-8502 Toll Free: 1-(877) 855-2237, CAES@CT.GOV PORTAL.CT.GOV/CAES *An Affirmative Action/Equal Opportunity Employer* Detailed information about the Tick Testing Laboratory, personal protection measures, tick control measures, and tick-associated diseases can be found at the following websites:

https://portal.ct.gov/CAES/Tick-Office/Tick-Office/Information-on-Submitting-Ticks https://portal.ct.gov/-/media/caes/documents/publications/bulletins/b1010pdf https://www.cdc.gov/ticks/longhorned-tick/index.html https://www.cdc.gov/media/releases/2018/p1129-tick-spreading-widely.html https://www.cdc.gov/ticks/index.html https://www.aphis.usda.gov/aphis/maps/animal-health/asian-longhorned-tick

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