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PRESS RELEASE

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RARE EXOTIC TICK SPECIES IDENTIFIED IN CONNECTICUT

Ticks likely hitchhiked across continents on human travelers, experts say.

New Haven, CT – The Connecticut Agricultural Experiment Station (CAES) reports that it has identified four nonnative exotic tick species in Connecticut in recent years, with the blood-feeding parasites and disease vectors hitching a ride on unknowing travelers returning to the state.

Although the exotic ticks may not be considered an immediate public health threat because of their extremely limited numbers found on international travelers, their presence serves as a powerful reminder for travelers to be extra vigilant in checking for ticks before returning home, especially if they spent a lot of time outdoors.

“People should also conduct thorough tick checks while traveling, particularly following outdoor activity in potentially tick-infested areas, and be proactive in monitoring possible symptoms following a tick bite,” said Dr. Goudarz Molaei, a research scientist and medical entomologist who directs the CAES Passive Tick and Tick-Borne Disease Surveillance Program (aka Tick Testing Laboratory).

“If a tick is found attached to a returning traveler, they must provide pertinent information to their physician and public health officials regarding their recent travel history to aid in tick identification, assess the risk of acquiring tick-borne disease, and make an appropriate diagnosis, particularly in cases of nonspecific symptoms such as fever, “ added Dr. Molaei, an associate professor adjunct at the Yale School of Public Health.

“Close monitoring of ports of entry and prompt interception of animals that may be carrying a nonnative tick are paramount in preventing the introduction, establishment, and subsequent expansion of exotic tick species in the United States. It is also imperative that clinicians and public health officials be aware of the various tick species present in their region and know how to morphologically distinguish native from nonnative ones,” Dr. Molaei said.

The exotic ticks identified by CAES are all closely related and morphologically similar to U.S. native species: the blacklegged tick, commonly known as the deer tick (*Ixodes scapularis*), lone star tick (*Amblyomma americanum*), and brown dog tick (*Rhipicephalus sanguineus*). They were identified on human travelers returning to Connecticut from 2019 to 2023.

They include two *Amblyomma mixtum* nymphs from Guatemala and Costa Rica, one *Amblyomma coelebs* nymph from Belize, one *Rhipicephalus pulchellus* female from Tanzania, two *Ixodes ricinus* nymphs from Germany and Poland, and one *I. ricinus* larva from Scotland. Of these, the two *A. mixtum* nymphs tested positive for *Rickettsia amblyommatis*, a member of the spotted fever group Rickettsia, but its public health relevance has yet to be fully elucidated.

This investigation by the CAES scientists, which was published in the *iScience* journal, is the latest report of a series of studies focusing on the invasive ticks and tick-borne pathogens.
https://www.cell.com/iscience/fulltext/S2589-0042(25)01484-1

“Since 2008, the CAES has documented nearly 20 nonnative ticks found on human travelers returning from Central America, Europe, and Africa. The introduction of invasive ticks into new areas has led to a substantial increase in human-tick encounters and the risk of their establishment and pathogen transmission,” Molaei said.

The movement of ticks to new areas well beyond their native region can be attributed to globalization, increased frequency of travel, and a rise in legal and illegal animal trades, among other factors. The recent introduction and establishment of the longhorned tick, *Haemaphysalis longicornis,* is a prime example of the challenges associated with invasive ticks. Native to East Asia and invasive to Australia, New Zealand, and Pacific Islands, this tick was first detected on a sheep in New Jersey in 2017. Due to its ability to reproduce asexually, an abundance of food sources, and conducive environments, it has now spread to at least 24 mostly eastern states and the District of Columbia with established populations as far north as Connecticut, Rhode Island, and Massachusetts.

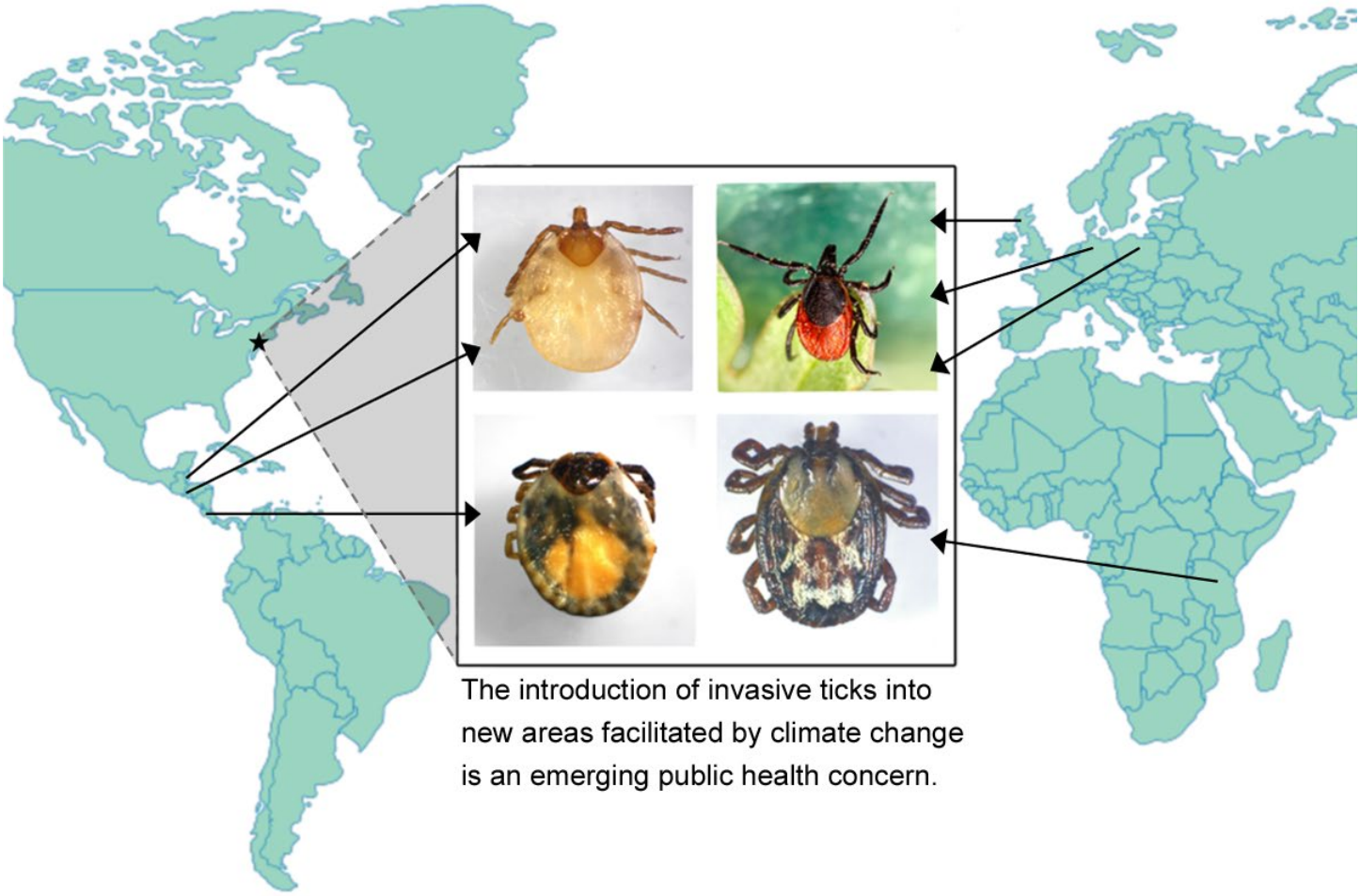
Detailed information about the CAES Tick Testing Laboratory, personal protection measures, tick control measures, longhorned ticks, ehrlichiosis, and other tickborne diseases can be found at the following websites:

https://portal.ct.gov/CAES/Tick-Office/Tick-Office/Information-on-Submitting-Ticks

https://www.cdc.gov/ticks/prevention/index.html

https://www.cdc.gov/ticks/about/index.html

https://stacks.cdc.gov/view/cdc/77833



The introduction of invasive ticks into new areas facilitated by climate change is an emerging public health concern.