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PRESS RELEASE

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THE FIRST HUMAN DISEASE CASE OF AN EMERGING *RICKETTSIA PARKERI* RICKETTSIOSIS TRANSMITTED BY THE INVASIVE GULF COAST TICK IN THE NORTHEAST

New Haven, CT – The Connecticut Agricultural Experiment Station (CAES) reports the first autochthonous (locally acquired) human disease case of *Rickettsia parkeri* rickettsiosis in Connecticut. Transmitted by the Gulf Coast tick, *Amblyomma maculatum*, *R. parkeri* rickettsiosis is an emerging tick-borne disease similar to Rocky Mountain spotted fever (RMSF) with relatively milder symptoms in the United States. Although cases of this disease have been reported in the southeastern part of the country, this is the first report of this disease in the Northeast, an area already plagued by tick-borne diseases, including Lyme disease, babesiosis, anaplasmosis, Powassan virus disease, and ehrlichiosis. This finding, which was published in the *Emerging Infectious Diseases* journal, is based on collaborative field and laboratory investigations by the CAES and CDC scientists on the tick that transmitted the disease and clinical investigations of the affected patient.

“Rising global temperatures, ecological changes, reforestation, and increases in commerce and travel are important underlying factors influencing the rate and extent of range expansion of ticks and associated pathogens. It is anticipated that warming temperatures related to climate change may lead to the continued range expansion and abundance of several tick species, increasing their importance as emerging threats to humans, domesticated animals, and wildlife,” said Dr. Goudarz Molaei, a research scientist and medical entomologist who also directs the CAES Passive Tick and Tick-Borne Disease Surveillance Program (aka Tick Testing Laboratory).

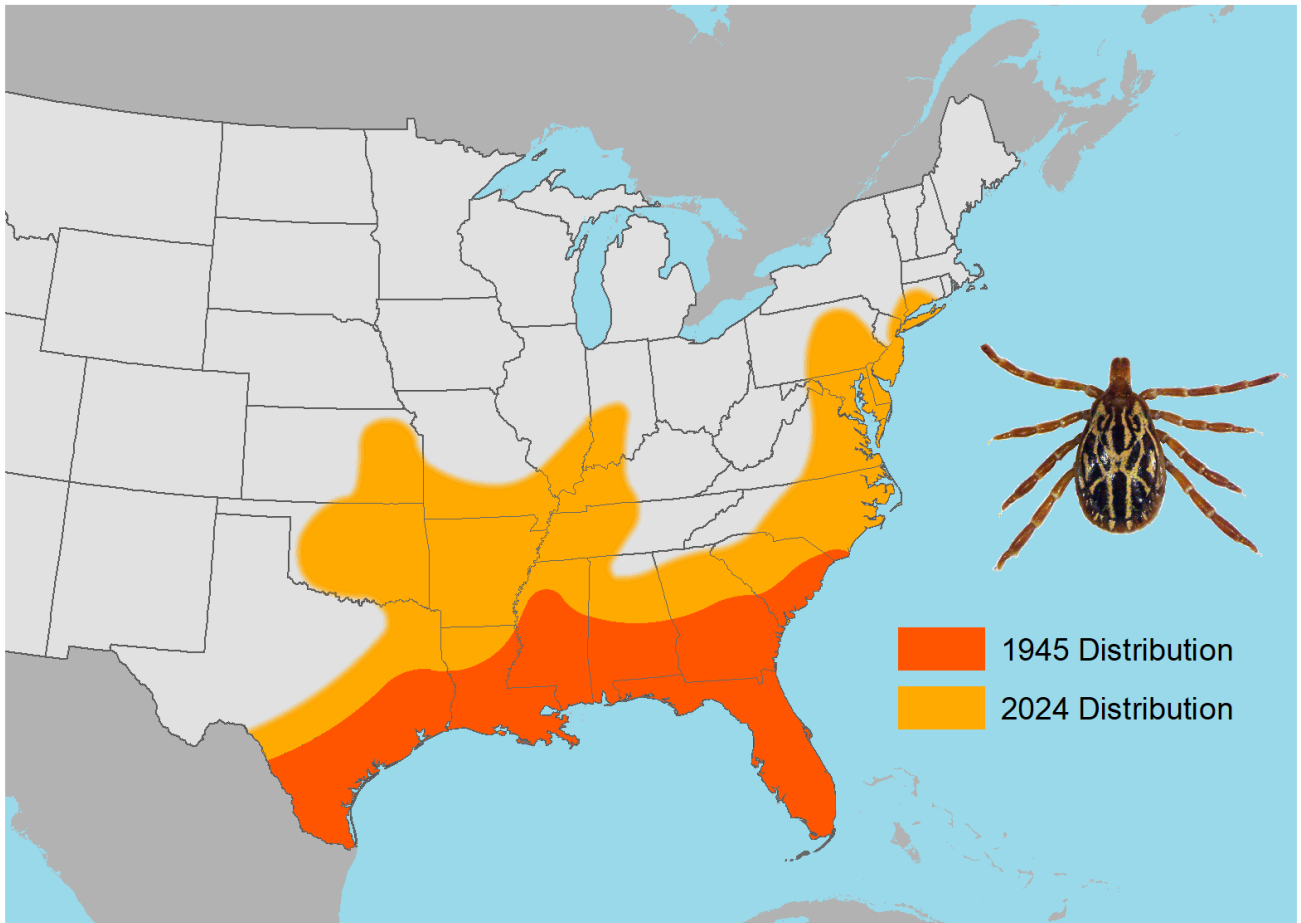
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The Gulf Coast tick is a three-host tick, and all feeding stages of this tick will bite humans. The distribution of this tick was considered restricted predominantly to coastal regions of states bordering the Gulf of Mexico and the southern Atlantic coast; however, in recent decades, its range has expanded northward into the mid-Atlantic states, with new populations reported from Delaware and Maryland. According to Dr. Molaei, the first established population of the Gulf Coast tick was reported in Fairfield County, CT, in 2021, with a 30% infection with *R. parkeri*. Additional populations of this tick species with higher infections were later reported from New York and New Jersey in 2022 and 2024, respectively. It is believed that migratory grassland birds serve a crucial role in the spread of Gulf Coast ticks to locations in central and northern states that possess favorable environmental conditions for their survival.

“Because of morphological similarities between Gulf Coast ticks and American dog ticks (the principal vector of RMSF in the Northeast), these two species can be misidentified. Since most tick species are associated with a unique suite of pathogens, it is important to improve regional capacity for accurate detection and identification of ticks and the pathogens these transmit in the Northeast, an area already endemic for Lyme disease, RMSF, ehrlichiosis, anaplasmosis, babesiosis, and Powassan virus disease.”, said Dr. Molaei. “The rapidly changing dynamics and evolving risks of tick-borne diseases across this region reinforce the need for awareness of and education for tick bite prevention strategies, including the use of repellents registered with the Environmental Protection Agency and performing regular and thorough tick-checks following exposures to tick-infested areas,” Dr. Molaei added.

Detailed information about the CAES Tick Testing Laboratory, personal protection measures, tick control measures, and tick-associated diseases can be found at the following websites:

https://wwwnc.cdc.gov/eid/article/13/5/06-1468_article
<https://www.cdc.gov/other-spotted-fever/about/index.html>
<https://www.cdc.gov/other-spotted-fever/hcp/clinical-signs/index.html>
<https://www.cdc.gov/mmwr/volumes/65/rr/rr6502a1.htm>
<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/tickborediseases/tickID.html>
https://www.cdc.gov/ticks/geographic_distribution.html
https://www.cdc.gov/ticks/maps/gulf_coast_tick.html
http://entnemdept.ufl.edu/creatures/URBAN/MEDICAL/Gulf_coast_tick.htm



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