The Connecticut Agricultural Experiment Station

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POPULATIONS OF GULF COAST TICK, A NEW SPECIES TO THE NORTHEAST AND A VECTOR OF SPOTTED FEVER TO HUMANS, DISCOVERED IN CONNECTICUT

New Haven, CT – The Connecticut Agricultural Experiment Station (CAES) reports populations of the Gulf Coast tick, *Amblyomma maculatum*, in Fairfield County, and notes its potential to further establish in Connecticut and transmit pathogens of public health and veterinary concern. According to Dr. Goudarz Molaei, a research scientist who also directs the CAES Tick Surveillance and Testing Program, this is the first report of populations of the Gulf Coast tick in the northeastern United States. Considering the role of this species in transmission of pathogens of medical and veterinary importance, this finding highlights ongoing challenges associated with range expansion of tick species into Connecticut, a state already with pervasive populations of blacklegged ticks and established populations of lone star ticks.

The Gulf Coast tick is small to medium sized, body 3-7 mm long and 2-4 mm wide. It is distributed throughout Central and South American countries bordering the Gulf of Mexico and Caribbean Sea. In the United States, its distribution was originally limited to the southeastern states bordering the Gulf of

Mexico and the south Atlantic states. However, in recent decades, its range has expanded northward into the mid-Atlantic states with new populations reported from Delaware and Maryland.

The Gulf Coast tick is a three-host tick because each active life stage feeds on a different host. Larvae and nymphs feed on birds and small rodents and rabbits, while adults primarily feed on larger mammals including white-tailed deer, dogs, coyotes, skunks, and bears. They will also readily feed on humans. Gulf Coast ticks are involved in transmission of several pathogens of veterinary and medical importance, including *Rickettsia parkeri* rickettsiosis, a form of spotted fever, to humans, and *Hepatozoon americanum*, the causative agent of American canine hepatozoonosis, to canine species.

"Rising global temperatures, ecologic 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" added Dr. Molaei. Dr. Jason C. White, Director of the CAES, comments that "This important finding highlights the critical nature of the Experiment Station's comprehensive vector-borne disease surveillance programs to the public health of our state."

Depending upon the annual weather condition in different geographic locations, coastal populations of the Gulf Coast ticks are active from May through March, whereas inland populations are active from February through October. In some southern states, adult activity peaks in August, followed by larvae in December and nymphs in January. In other locations, adult activity peaks in April, followed by larvae in June and nymphs in July. It is important that the public and practitioners develop a heightened awareness of the health risks associated with emergent tick vectors and their potential for changing the dynamics of tick-borne diseases in Connecticut and throughout the northeastern United States.

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://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/tickbornediseases/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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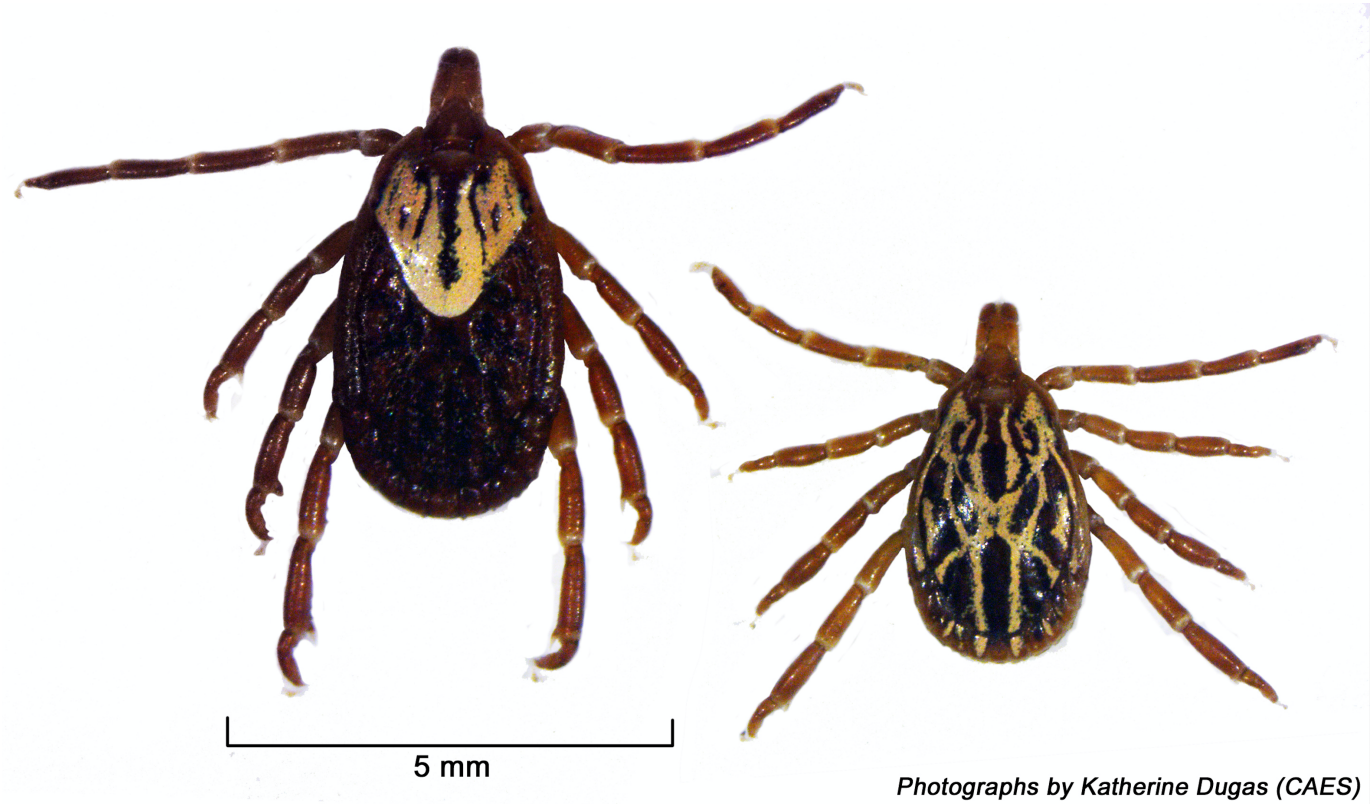

Photographs by Katherine Dugas (CAES)

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