

# URI entomologist predicts early tick season, high infection rate

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A University of Rhode Island tick expert believes that several ecological factors are likely to make 2008 a big year for ticks and disease, so he advises Rhode Islanders to develop an action plan for taking appropriate precautions to reduce their chances of being bitten.

Thomas Mather, professor of entomology and director of URI's Center for Vector-Borne Disease, said that among other things, a large acorn crop in 2006 may have led to an "exceptionally high" rodent population in Rhode Island last year.

"Since mice serve as carriers of the Lyme disease pathogen, immature deer ticks last year had lots of potentially infected blood meals," said Mather, who has been monitoring deer tick populations in the state since 1992. "These factors lead me to believe that the poppy-seed sized nymphal ticks are likely to be more abundant this year and a higher percentage of them will be infected. The result is that people will be more likely to encounter ticks that can transmit Lyme and other diseases."

While the adult deer ticks have been active for quite some time already, Mather said it is the nymphal stage ticks that primarily transmit Lyme disease to humans, and they are not typically active until late May and June. But this year he expects the tiny nymphs to be a concern by mid-May, which is a week or two early.

"Of course, the weather could have an impact on how bad the tick season

is. If we have a very dry May and June, my predictions get tossed out the window,” Mather said. “But as we start the season, my concern is that the infection rate will be high and the nymphal ticks will be active a little early.” Nymphal deer ticks thrive in shady cover with high humidity.

Therefore, Mather said Rhode Islanders should be especially vigilant against ticks this year. The Centers for Disease Control and Prevention have established a national goal of reducing the rate of Lyme disease to 9.7 cases per 100,000 people by the year 2010. In Rhode Island estimates of the current rate are between 30 and 60 cases per 100,000 people, while that rate is more than 10 times higher in southern and central Rhode Island.

Mather recommends that all Rhode Islanders take precautions to prevent contracting Lyme disease by implementing tick control strategies around the yard. He recommends:

- checking thoroughly every day for ticks;
- using a pointy tick removal tweezer to safely remove attached ticks;
- treating clothing with a repellent containing Permethrin and wearing the treated clothing whenever going in areas where ticks may lurk;
- keeping the edge of the yard clear of leaf litter because that’s where people’s exposure to ticks is most likely to occur; and
- hiring a trained professional pest controller or arborist to apply an appropriate tick treatment around the yard.

Adult deer ticks must be attached for 48 hours to transmit the Lyme disease pathogen, while nymphs, which are tiny and difficult to see, need only be attached for 24 hours to begin transmitting a Lyme infection.

More information on tick control is available at URI’s Tick Encounter Resource Center’s website, [www.tickencounter.org](http://www.tickencounter.org) .

Source: University of Rhode Island

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