

Blacklegged Tick or Deer Tick, *Ixodes scapularis* Say (Arachnida: Acari: Ixodidae)¹

Michael R. Patnaude and Thomas N. Mather²

Introduction

Lyme disease was first recognized in 1975 as a distinct clinical disorder (Steere et al. 1977) and is currently the most frequently reported vector-borne disease in the United States (CDC 1995). Transmission of the spirochete *B. burgdorferi*, the causative agent of Lyme disease (Burgdorfer et al. 1982), occurs by the bite of Ixodes ticks. In the United States, the blacklegged tick, *Ixodes scapularis* Say affects the greatest number of people for three principal reasons: their geographic distribution coincides in the northeastern United States with the greatest concentration of humans (Miller et al. 1990); spirochete infection rates are high, often exceeding 25% (Burgdorfer et al. 1982, Anderson et al. 1983, Magnarelli et al. 1986); and the geographical range of the tick is spreading (Lastavica et al. 1989, Anderson et al. 1990, Godsey et al. 1987, Davis et al. 1984).

Synonymy

In 1993 it was shown that *Ixodes dammini* was shown to be the same species as *I. scapularis* and as a result has retained the older name (Oliver et al. 1993). Those who read papers with references to *Ixodes dammini* should make note of this change.

Distribution

Ixodes scapularis is found along the east coast of the United States. Florida westward into central Texas forms the lower boundary, although there are reports from Mexico. The upper boundary is located in Maine westward to Minnesota and Iowa. The distribution of *I. scapularis* is linked to the distribution and abundance of its primary reproductive host, white-tailed deer (*O. virginianus*) (Wilson et al. 1985, 1988). Only deer or some other large mammal appears capable of supporting high populations of ticks (Duffy et al. 1994). In the northeastern United States, much of the landscape has been altered. Forests were cleared for farming, but were abandoned in the late 1800s and 1900s causing succession of the fields to second-growth forests. These second-growth forests created “edge” habitats which provided appropriate habitat for deer resulting in increased populations (Severinghaus and Brown 1956) and thus, may have increased populations of the blacklegged tick.

Description

Adult deer ticks have no white markings on the dorsal area nor do they have eyes or festoons. They are about 3 mm and dark brown to black in color. Adults exhibit sexual dimorphism. Females typically have the area behind the scutum with an orange to red color.

1. This document is EENY-143 (IN300), one of a series of Featured Creatures from the Entomology and Nematology Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Published: July 2000. Revised: September 2008. Reviewed: December 2011. This document is also available on Featured Creatures website at <http://entomology.ifas.ufl.edu/creatures>. Please visit the EDIS website at <http://edis.ifas.ufl.edu>.

2. Michael R. Patnaude, Entomology and Nematology Department, University of Florida, Institute of Food and Agricultural Sciences, Gainesville, FL and Thomas N. Mather, University of Rhode Island, Kingston, RI 02881.

