

The recent collection of adult specimens of *Ixodes scapularis* Say, the black-legged tick (also called the deer tick) in local state forests may indicate that this species, the principle vector of Lyme Disease, is becoming more widely distributed in the area.

The role of the adult tick in transmitting the pathogen is a matter of some debate, but its importance in establishing and maintaining populations is well documented.

The large influx of hunters in the early days of deer season provides a mechanism for dispersal of the tick which depends upon mobility of their vertebrate hosts. Active movement of ticks from the point of hatching is very limited. They typically climb up on low vegetation and remain there until a passing vertebrate brushes them off. The ticks then feed to repletion, drop off the host and seek a sheltered spot until molting into the next stage of the life cycle. If individual ticks feed on the white-footed mouse, a common host of immature stages, the potential for movement is in hundreds of feet. Adult ticks feeding on the white-tail deer may be carried for 1-3 miles, while those attached to a deer hunter may be transported from 5-150+ miles by automobile.

Effective repellents are readily available and should be used by hunters! Products containing DEET in concentrations of 15% or higher can be applied to exposed skin and to fabric, providing protection up to several hours per application. Clothing can be treated with Permethrin which when properly applied can provide long term protection and can remain effective through two normal laundry cycles. (Protection may persist beyond an additional washing but can vary according to the fabric involved.)

Careful inspection of the body at the end of each day of exposure and careful removal of any attached individuals should be a regular precautionary measure. Pathogen transmission appears to occur only when ticks have fed to repletion which requires several hours.

William L. Butts

SUNY Oneonta Biological Field Station, Cooperstown

November 11, 2009