There's A New Tick In Town

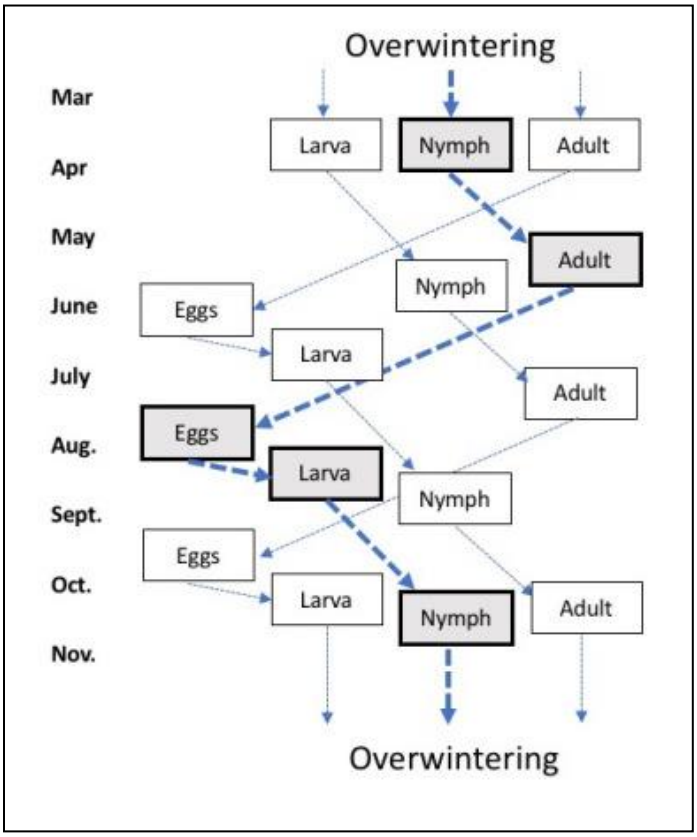
The East Asian or longhorn tick (*Haemaphysalis longicornis*) has been found on a cattle farm in Albemarle County, Virginia. It is a hard tick like the American dog tick (*Dermacentor variabilis*), the lone star tick (*Amblyomma americanum*), and the blacklegged or deer tick (*Ixodes scapularis*).

Three life-stages of *H. longicornis*. Adult female (left), partially engorged nymph (center) and larvae (right). Scale is millimeters.

Previously unknown in the U.S., the longhorn tick has been found in Arkansas, Maryland, New Jersey, New York, North Carolina, Pennsylvania, West Virginia and Virginia this summer. While the longhorn tick has not been positively connected to any pathogens in Virginia, the cattle farmer experienced a large-scale morbidity event last fall/winter that was ultimately attributed to a tick-borne protozoan infection (*Theileria orientalis*) – Theileria-associated bovine anemia. Since the farmer had just treated the cattle with a pour-on anti-parasitic, no ticks were recovered. In April, an orphaned calf was discovered to be loaded with the exotic ticks. It is hypothesized that the longhorn tick infected the cows with Theileria in the winter, but this cannot be confirmed. Trail camera pictures taken near the affected farm showing adult deer severely and diffusely affected by ticks may be suggestive of infestation.

Females are capable of reproducing asexually. Adult females lay up to ~2,500 eggs, with higher egg counts in bisexual vs. parthenogenetic females. The eggs hatch into larvae in late summer-early fall. The larvae crawl onto the grass to quest and attach to passing hosts, feeding on blood for 3-5 days. Afterwards, they drop off the host onto the pasture, where they molt to become a nymph and then become inactive during the winter.

In the spring, the nymphs become active again, acquire a new host, attach and feed for 5-7 days, drop off and molt to adults, which are still relatively small (~2 mm). Adults attach to a host, feed for 7-14 days by which time they are the size of a pea (10 mm), then drop off and digest the blood as they develop eggs. The females lay the eggs (completing the life cycle) and die.



The adult ticks' preferred hosts are cattle, sheep, horses, and deer which it may infect with Theileria, babesiosis (*Babesia microti*), Anaplasmosis (*Anaplasma phagocytophilum),* and Human Monocytic Ehrlichiosis (HME) (*Ehrlichia chaffeensis*). Larvae and nymphs feed on rodents and small mammals like the blacklegged tick.

The tick is capable of transmitting severe fever with thrombocytopenia syndrome, Japanese spotted fever (*Rickettsia japonica*), Powassan virus, Huaiyangshan virus hemorrhagic fever, and Lyme disease (*Borrelia burgdorferi*s) to humans.

Note: For tick defense, see article on Tick Tubes on page 23 of the July Lake Ridge Magazine: https://indd.adobe.com/view/cbebfed9-afa6-4014-adae-40b4000bdd40