

Information Sheet

October 2020

Red Sheep tick



Photo by Flickr.com

Background

- In the summer of 2020, a new exotic tick species was identified in the United States, *Haemaphysalis punctata*, the red sheep tick.
- On August 7, 2020, the National Veterinary Services Laboratories (NVSL) received eight tick samples from the Columbia University Ecology, Evolution, and Environmental Biology Department. The ticks were collected from vegetation on Block Island in Washington County, Rhode Island from 2013 through 2020. NVSL confirmed that the ticks collected in Rhode Island were the red sheep tick.
- There are more than 100 different species of *Haemaphysalis* worldwide and now four species within the United States with the recent introduction of *Haemaphysalis longicornis*, the Asian longhorned tick (ALHT) and *Haemaphysalis punctata*, the red sheep tick.^{2, 15}

Distribution

- The red sheep tick species is native to eastern Asia, Africa, Europe, southern Scandinavia, United Kingdom, Russia, and Mediterranean countries^{3, 5, 9, 13}
- It has been collected from cold, humid regions; coastal regions; warm regions with mild winters; and semi-desert regions.^{1, 12, 13, 14}
- This species is generally found associated with open grazed grassland, trails, along forest edges, primary growth areas with overgrown shrubs, forest-steppe, oak grazing woods, and salt marshes/forested dune areas grazed by livestock.^{1, 9, 12, 13}

Host Associations

- The primary hosts for the red sheep tick are cattle, sheep, goats, pigs, horses, donkeys, dogs, camels, buffalo, red fox, deer, weasel, badger, squirrels, voles, field mice, rabbits, hedgehogs, rodents, lizards, and humans.^{1, 10, 12}
- It has been collected from more than 16 different bird species.^{1, 4, 5, 6}
- Immature ticks (larvae, nymphs) are frequently collected from birds and small mammals. Migrating birds may play a role in the introduction of this species to new areas.
- Adult ticks prefer large mammals, especially grazing domestic mammals.^{12, 13}

Seasonal Activity

- The red sheep tick is a three-host tick with a 1- to 3-year life cycle.¹⁴
- Larvae are active between May and October, nymphs between March and October or December to February, and adults between March and June.^{1, 12}

Tick-Borne Diseases

- The red sheep tick transmits a variety of tick-borne diseases to cattle, equines, and dogs, including *Babesia major*, *Babesia bigemina*, *Babesia bovis*, *Babesia caballi*, *Theileria mutans*, *Theileria buffeli/orientalis* group, *Theileria equi*, *Theileria annae*, *Theileria mutans*, *Theileria recondita*, *Anaplasma marginale*, *Anaplasma centrale*, *Anaplasma phagocytophilum*, *Anaplasma bovis*, *Hepatozoon canis*, and *Rickettsia* spp.^{1, 4, 6, 8, 11, 17}
- This tick species also transmits several diseases to sheep, including *Anaplasma ovis*, *Babesia motasi*, *Ehrlichia ovina*, *Theileria luwenshuni*, and *Theileria ovis*.¹
- Tick paralysis, tick-borne encephalitis virus, Tribec virus, Bhanja virus, Crimean-Congo haemorrhagic fever virus, *Coxiella burnettii*, and *Francisella tularensis* that affect both ruminants and humans have also been associated with this tick species.¹⁷

Pasture Management and Tick Control

- Use habitat modification practices such as keeping grasses cut short and removing weeds and brush to reduce habitat for ticks to thrive in.¹⁶
- Restrict cattle, sheep, and goats from grazing in wooded areas or heavily tick-infested pastures to reduce tick exposure.¹⁶
- Regularly use acaricide treatment (products that kill ticks) on vegetation and equipment.¹⁶
- Regularly inspect cattle, goats, and sheep for ticks, especially in the ears, under the tail area, between the hind legs, and in udder skin folds.
- Thoroughly clean and sanitize tools and devices before and after use on each animal.

- Contact your local veterinarian for approved acaricide use on livestock and pets.
- If you suspect red sheep tick infestations on livestock, equines, and companion animals, please contact your local veterinarian or State health official.

References

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Report Suspected Cases

Suspect cases should be reported to your State animal health official.

For more information, contact:

The Center for Epidemiology and Animal Health
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