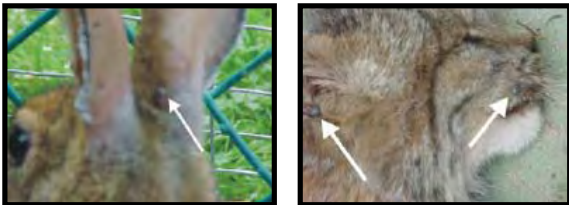




Ixodes scapularis, the black-legged tick



Rabbit ticks on snowshoe hare and lynx

For more information, please contact the Animal Health Division.



Other related information pamphlets such as “Lyme Disease in Newfoundland” are available online from the Department of Natural Resources at:

<http://www.nr.gov.nl.ca/nr/publications/agrifoods/>



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The Ticks of Newfoundland



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Introduction

Ticks are small, wingless arthropods (bugs) that are related to spiders, mites and scorpions. In most cases in this province, they are of no known direct concern to humans, only occasionally being found on their domestic animals or on wildlife. The exception is the black-legged tick which is able to spread Lyme disease. Details on the biology and importance of ticks in this province are detailed in this pamphlet. A more specific pamphlet, “*Lyme Disease in Newfoundland,*” is also available.



Bottom view of *Ixodes scapularis* isolated at the Animal Health Laboratory

Background

Ticks are common external parasites of certain types of animals across North America. There are two general types, the hard ticks and the soft ticks.

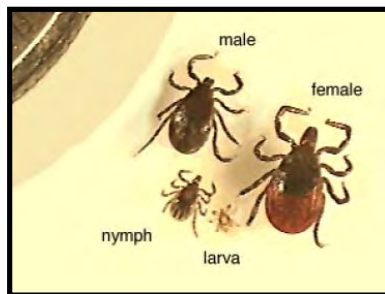


Figure 1: Tick lifecycle stages (egg not shown)

As this province has no reported soft ticks they will not be discussed any further. Ticks have four stages in their life; the egg, larva, nymph and adult (See figure 1). With the exception of the egg stage, all stages require a blood meal which allows larvae to grow to nymphs, and nymphs to adults. The adult female uses the blood to permit her to lay eggs. The adult male may not feed, or if it does, only requires a very small blood meal to survive.

Ticks which stay on the same animal for all of the feeding stages are called one-host ticks. Those that feed, drop onto the ground between stages and then feed on a new host are called three-host ticks. Ticks commonly stay in tall grass or shrubs waiting to attach onto new hosts as they brush by.

Ticks can cause problems by 1) feeding on blood, 2) spreading diseases such as Lyme disease, Q-fever and tularemia, 3) irritating their host when they pierce the skin, 4) causing tick paralysis, which occurs when female ticks release a toxin into the host while feeding, 5) causing an allergic reaction from saliva and, 6) creating a wound that becomes infected.

Ticks in Newfoundland and Labrador

There are ticks that live permanently in this province, as well as those that may arrive on an animal that has been elsewhere, but they do not establish a permanent population. These will be referred to as *permanent species* and *transient species*. The following table identifies those ticks found here, as well as some of their characteristics.

In the Maritime provinces, the winter tick (*Dermacentor albipictus*) is common on moose but has not been reported in this province.

Common Name	Latin Name	Hosts	Permanent or Transient
Rabbit tick	<i>Haemophysalis leporis-palustris</i>	Rabbits, cats, lynx, mice, foxes, squirrels, chipmunks	P
Seabird tick	<i>Ixodes uriae</i>	Seabirds	P
Mouse tick	<i>Ixodes muris</i>	Mice, shrews, rabbits, rats, voles, muskrats, dogs, cats	P
Vole tick	<i>Ixodes angustus</i>	Voles, mice, squirrels, chipmunks, shrews, dogs, cats, little brown bats, people	P
Black-legged tick	<i>Ixodes scapularis</i>	Mice, squirrels, foxes, wolves, rats, rabbits, coyotes, domestic animals, people	T
American dog tick	<i>Dermacentor variabilis</i>	Mice, voles, rabbits, coyotes, foxes, muskrats, rats, shrews, woodchucks, wolves, bears, weasels, domestic animals, people	T
Brown dog tick	<i>Rhipicephalus sanguineus</i>	Coyotes, rabbits, dogs, cattle, people (rarely)	T

Many people are familiar with the rabbit tick, as they are often seen in high numbers on wild rabbits when the rabbit population is high. It is not uncommon to see large numbers feeding along the edges of the rabbit's ears.

Research has been carried out on the ticks present in this province in cooperation with Memorial University.

When is a Tick Not a Tick?

In many areas there is a small, wingless insect that lives on the skin of sheep called the sheep ked (*Melophagus ovinus*). It is also called a sheep tick but has no relationship to actual ticks and is, in fact, a modified fly.

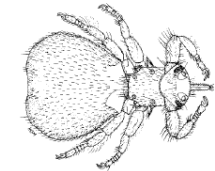


Figure 3: Sheep Ked

What to Do if a Tick is Found

If a tick is found on an animal or person, it should be carefully removed by grasping the mouthparts, as close to the skin as possible, with tweezers and then gently removing the tick. It should then be preserved alive (if possible) in a small container with slightly damp cotton, and either taken to a local public health official (if found on a person), veterinary clinic (if found on a pet), Conservation Officer (if found on a wild animal) or to the Animal Health Laboratory (709.729.6897) in St. John's. Further advice can be given once the tick is identified. Follow-up advice on health related matters will be provided by the Public Health or veterinary clinic involved.