

# TICKS AND MINNESOTA LIVESTOCK



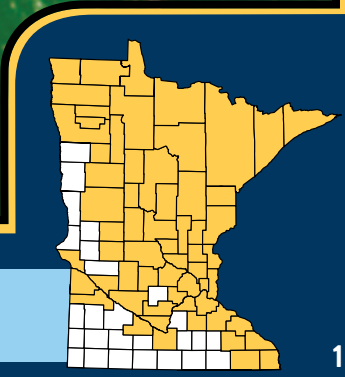
# CONTENTS

|                            |    |
|----------------------------|----|
| BLACKLEGGED TICK.....      | 1  |
| AMERICAN DOG TICK.....     | 3  |
| LONE STAR TICK.....        | 5  |
| CATTLE FEVER TICK.....     | 7  |
| ASIAN LONGHORNED TICK..... | 9  |
| WINTER TICK.....           | 11 |
| GENERAL INFORMATION .....  | 13 |

# BLACKLEGGED TICK (DEER TICK)



Photo credit:  
J. Gathany, CDC



North, Central and Southeast

# BLACKLEGGED TICK (DEER TICK)

## SIZE:



Female



Male



Nymph



Larvae



## LOCATION\*:

\*Map shows distribution of Blacklegged and Western Blacklegged ticks. Distribution in western U.S. is Western Blacklegged ticks.



Source: Centers for Disease Control and Prevention (CDC), accessed 3/4/2020. [https://www.cdc.gov/ticks/geographic\\_distribution.html](https://www.cdc.gov/ticks/geographic_distribution.html)

## DISEASE CONCERNS:

In order to spread a tick-borne disease to an animal or person, a tick needs to be infected with a disease agent and it needs to be attached to the host for a certain amount of time. Blacklegged ticks are capable of transmitting diseases like anaplasmosis, babesiosis, ehrlichiosis, Lyme disease, and Powassan virus disease.

## CHARACTERISTICS:

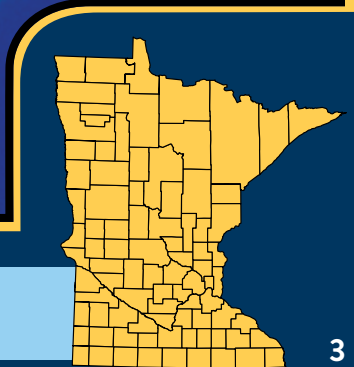
Blacklegged ticks can be moved around via animal hosts, like mice, deer, birds and other wildlife, but need to be in or near wooded and brushy habitat to survive. They're most active in the spring, early summer and fall, which is when producers should increase their surveillance and prevention efforts for all species of ticks.

# AMERICAN DOG TICK

(WOOD TICK)



Photo credit:  
J. Gathany,  
CDC/DVBID



**Found in all areas of the state**

# AMERICAN DOG TICK (WOOD TICK)

## SIZE:

0.25 inches



Female



Male



Nymph



Larvae



## LOCATION:



Source: Centers for Disease Control and Prevention (CDC), accessed 3/4/2020.  
[https://www.cdc.gov/ticks/geographic\\_distribution.html](https://www.cdc.gov/ticks/geographic_distribution.html)

## DISEASE CONCERNS:

While the American dog tick is common throughout Minnesota and may be seen as just a pest, it can spread diseases like Rocky Mountain spotted fever and tularemia. However, these diseases are very rarely reported in Minnesota.

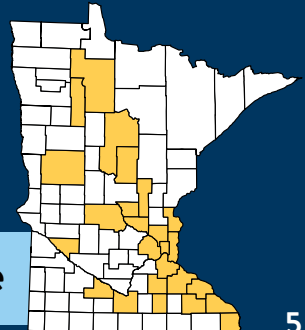
## CHARACTERISTICS:

The American dog tick feeds on a wide variety of mammals, including people, and is active during the spring and early summer. This tick is commonly found throughout Minnesota and can survive in wooded habitat as well as more open, grassy habitat.

# LONE STAR TICK



Photo credit:  
J. Gathany,  
CDC/DVBID



Rare and sporadic reports in state

# LONE STAR TICK

## SIZE:



Female



Male



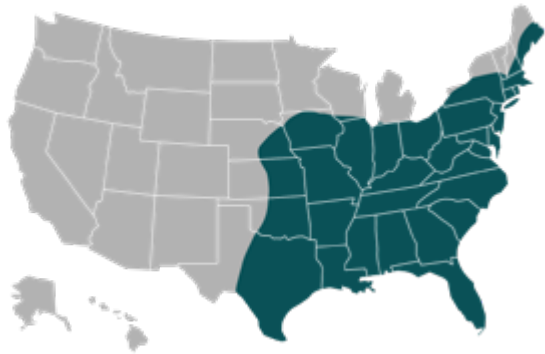
Nymph



Larvae



## LOCATION:



Source: Centers for Disease Control and Prevention (CDC), accessed 3/4/2020.  
[https://www.cdc.gov/ticks/geographic\\_distribution.html](https://www.cdc.gov/ticks/geographic_distribution.html)

## DISEASE CONCERNS:

The lone star tick is most commonly found in southern states, and has been rarely found in Minnesota. It can spread diseases like ehrlichiosis and tularemia.

## CHARACTERISTICS:

The lone star tick is an aggressive biter and is not particular when seeking hosts. This tick can be found on humans, birds, small and large wildlife, and livestock. Activity is likely highest in the spring and early summer.

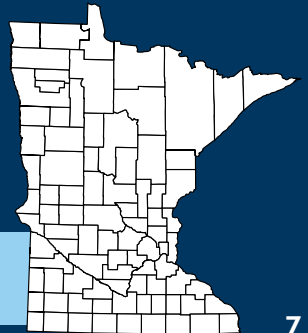


# CATTLE TICK



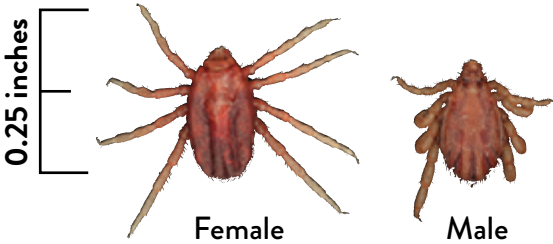
Photo credit: J. Tidwell and A. Perez de Leon, USDA-ARS

**Could be introduced into state**



# CATTLE TICK

## SIZE:



## LOCATION:



Source: Texas A&M University's Tick App, accessed 3/4/2020.  
<https://tickapp.tamu.edu/ticks/cattletick.html>

## DISEASE CONCERNS:

The cattle tick is capable of potentially transmitting diseases (e.g., Texas cattle fever) that can have an enormous impact on the health and productivity of livestock species.

## CHARACTERISTICS:

This tick has been found in the southern U.S. and has a great impact on livestock like cattle and horses. It typically moves around via its preferred host, cattle, which is why veterinary inspections and tracked animal movements are important. Cattle are routinely transported around the U.S. as part of livestock operations, and this provides a risk for ticks to be introduced to new areas.

# ASIAN LONGHORNED TICK



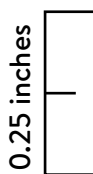
Photo credit:  
J. Gathany, CDC/DVBID



**Could be introduced into state**

# ASIAN LONGHORNED TICK

SIZE:



Female



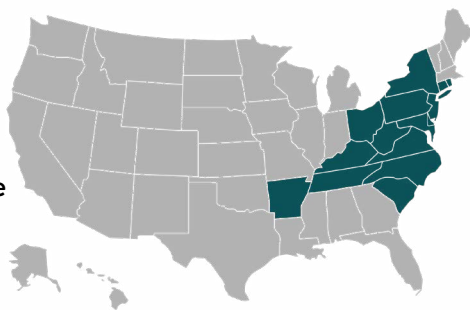
Nymph



## LOCATION:

New Jersey, Virginia, West Virginia, Arkansas, North Carolina, New York, Pennsylvania, Maryland, Connecticut, Kentucky, Tennessee, Delaware, Ohio, Rhode Island and South Carolina

Source: Centers for Disease Control and Prevention (CDC), accessed 4/11/2020.  
<https://www.cdc.gov/ticks/longhorned-tick/index.html>



## DISEASE CONCERNS:

It has the potential to transmit many diseases to humans and domestic animals such as dogs, cats, cattle, sheep, goats, horses and chickens. These diseases include babesiosis, theileriosis, Q-fever, encephalitis (caused by a European virus related to Powassan virus), and a severe febrile illness found in China, Korea and Japan (Severe Fever with Thrombocytopenia Syndrome, SFTS) caused by a virus.

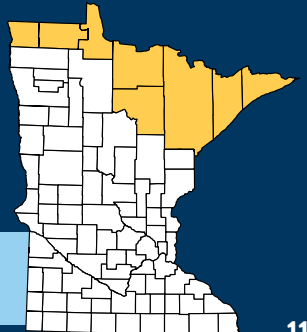
## CHARACTERISTICS:

Like other ticks, it does not move far on its own, but rather it is carried on animal hosts, including birds and mammals. The longhorned tick is a threat to humans and livestock, including cattle, sheep and deer due to pathogen transmission, heavy infestation causing anemia and death, and damage to hides and fleece. It has been documented on a very large range of species, with immatures favoring birds and smaller mammals, but feeding on larger hosts also. It has been found on almost everything except reptiles and amphibians. It is quite hardy, surviving temperatures well below freezing and up to 104 F. Control is difficult due to its variety of hosts, and in mild climates, up to two generations can be produced per year.

# WINTER TICK



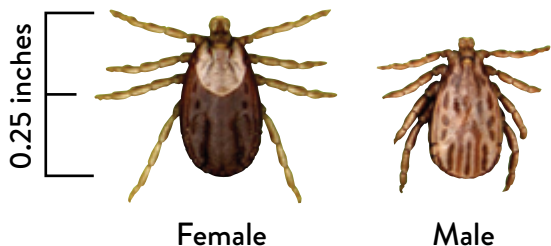
Photo credit: MMCRI



**Found in Northern Minnesota**

# WINTER TICK

## SIZE:



## LOCATION:



Source: "White as a Ghost: Winter Ticks and Moose" by Bill Samuel, Federation of Alberta Naturalists.

## DISEASE CONCERNS:

Preferred habitat of forested areas, particularly near moose. Prefer moose and rarely cervids, horses, and livestock as hosts. Found in northern Minnesota.

## CHARACTERISTICS:

No known diseases although can cause severe infestations, hair loss, anemia, and mortality.

# GENERAL INFORMATION

## TICK PREVENTION AND REDUCTION

Complete tick control or eradication is usually not a feasible option for livestock owners. Instead, people should focus their efforts on tick bite prevention or reduction of tick habitat. These simple measures can help reduce tick encounters and limit the ability of ticks to spread disease agents to your animals.

- Forest grazing should be limited because shaded areas with leaf litter and debris on the ground are ideal tick habitat.
- Minimize access to wooded edges of pasture, which is also good tick habitat.
- Keep fencing in good repair to reduce the amount of wildlife that crosses your property.
- Clear brushy habitat, if possible.
- Remove attached ticks as soon as possible to reduce the risk of ticks impacting the health of your livestock and multiplying near your animals.
- Discuss preventative options with your veterinarian, including dips or sprays.

## DISEASES TICKS CARRY

In order to spread a tick-borne disease to an animal or person, a tick needs to be infected with a disease agent and it needs to be attached to the host for a certain amount of time. Contact your veterinarian if you suspect your animal may be sick with a tick-borne disease.

## HOW TO SUBMIT A SAMPLE

To help increase awareness and understanding of the different types of ticks affecting Minnesota's livestock and other animals, veterinarians, livestock producers, pet owners, and any other member of the public are encouraged to submit ticks to the Minnesota Department of Health Vectorborne Diseases Unit. In particular, if you find an unusual type of tick or severe tick infestation on your animal(s), please submit the tick(s) for identification using the MDH Tick Identification and Submission Form:

(<https://www.health.state.mn.us/diseases/tickborne/ticksubform.pdf>).

The tick can be saved in a small container or baggie and submitted to the Minnesota Department of Health or your veterinarian for identification.

## WHERE TO LOOK FOR TICKS ON LIVESTOCK

Don't forget to regularly look over your animals. A quick and simple tick check can go a long way in monitoring any problems before they compound. Common areas to find ticks on livestock include beneath the tail, along joints, under skin folds, and inside or around ears.

**MINNESOTA BOARD OF ANIMAL HEALTH**

**Healthy Animals for Healthy People and Communities**

625 Robert Street North  
St. Paul, MN 55155

651-296-2942

[animalhealth@state.mn.us](mailto:animalhealth@state.mn.us)

[www.mn.gov/bah](http://www.mn.gov/bah)