

# Lake Wise Info Sheet



## Shoreland Best Management Practices for Lake-friendly Living.

### Benefits

- Water Quality
- Wildlife Habitat
- Prevents Erosion
- Slow, Spread, Sink Stormwater
- Visual Appeal
- Low Cost
- Low Maintenance
- Protection & Resiliency

Many BMPs for managing ticks are also VT DEC suggested BMPs for shorelands

### Related Info Sheets:

- Lakeshore Buffers
- Planning Pathways
- Restore Natural Plant Communities

# TICKS & SHORELANDS

## Minimize risk & protect water quality

### Description.

Manage for native vegetation and pathways along shorelands to minimize risk of human contact with ticks and prevent tickborne diseases, including Lyme Disease and Anaplasmosis.

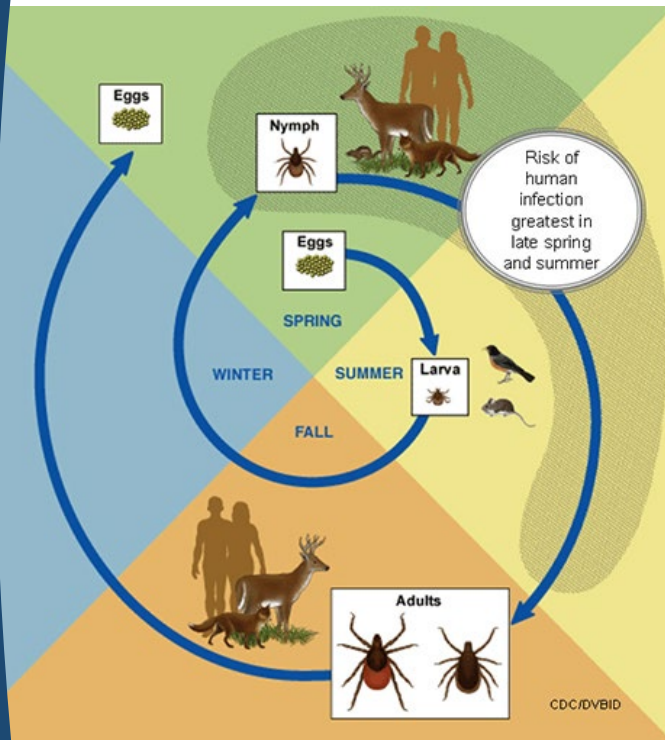


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### Applicability.

It is important to understand the tick life cycle and conditions that cause tick populations to increase in order to manage your property to reduce risk of contact.

**Native plant communities help to minimize tick populations.**



### How ticks spread.

Deer and mice are common hosts to ticks and help them to spread. Mice act as hosts for ticks in their larvae stage and deer are hosts to nymph and adult ticks.

### Tick life cycle.

### Lyme disease.

Lyme disease is the most commonly reported tickborne disease in Vermont. It is caused by the bacteria *Borrelia burgdorferi* and is spread by the bite of a blacklegged tick. Ticks become "infected" during their larval stage when they first feed on blood of animals.

### Strategies to minimize contact with ticks on lakeshores.

#### 1. Plant and promote native species.

Native plants diversify habitat for birds and other wildlife. Birds, such as owls, eat ticks in addition to other bugs and mice, lowering the tick population.

Native plant communities create an environment that is less protective of ticks and mice due to varied plant heights and growth forms. Woodland environments maintain a humidity level that does not necessarily promote tick growth.

VERMONT

DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
WATERSHED MANAGEMENT DIVISION





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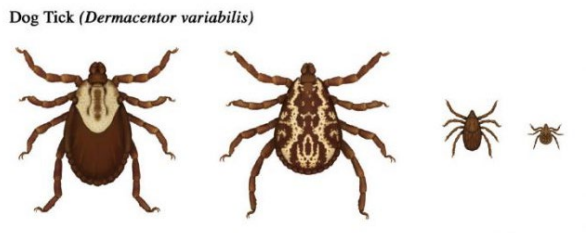
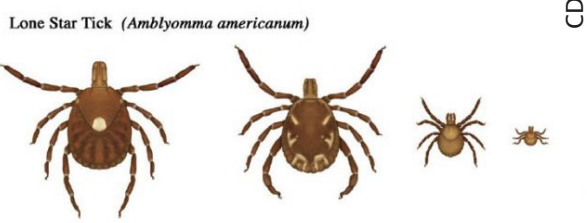
## 2. Plant deer resistant native species.

Planting native species that deer do not typically browse on helps to prevent the spread of ticks nearby. The following is a limited selection of native plants that are resistant to deer browsing:

☀️ Shrubs	☀️ Trees	☀️ Herbaceous Plants	
Native dogwoods	Birches	Most ferns	Columbine
Winterberry Holly	Pines	Most grasses	Echinacea
Summersweet	Junipers/	Anise Hyssop	Lobelias
Fragrant Sumac	E. Red Cedar	Asclepias	Liatris
Viburnums	Spruces	Asters	Lupine
Bayberry	Maples	Baptisia	Rudbeckia
Shrubby Cinquefoil	Serviceberries	Blue Flag Iris	Wintergreen
Witchhazel	Elderberries	Bee Balm/Bergamot	Yarrow

## Not all ticks spread disease.

There are 15 different types of ticks in Vermont, but only six are known to bite humans and spread diseases. However, 99% of tickborne diseases reported to the Vermont Department of Health are caused by the blacklegged tick.



NOTE: Relative sizes of several ticks at different life stages.



Engorged female *Ixodes scapularis* tick. Color may vary.

## 3. Maintain lake access pathways.

Defined mown or mulched pathways minimize the opportunities for brushing against ticks while still allowing natural vegetation to grow along the shore. Under the **Shoreland Protection Act**, one 6-foot-wide pathway is allowed without a permit.

## 4. Remove invasive plants.

Research studies have indicated that some invasive plant species create better conditions for ticks to thrive than healthy native forest ecosystems. University of Connecticut researchers found that invasive Japanese Barberry (*Berberis thunbergia*) increases the occurrence of Lyme disease-infected ticks fourfold because it creates the perfect, humid environment for ticks and protection for mice to hide in the dense branches.

## ^ Ticks that commonly bite humans.

Prevent tick bites with repellents registered by the EPA, like DEET (note: DEET should not be used on infants), Picaridin, and Oil of Lemon Eucalyptus. Permethrin can be used on clothing, but not skin. And always check yourself, children, and pets for ticks after spending time outdoors.

## For more information...

[Healthvermont.gov/disease-control/tickborne-diseases](https://healthvermont.gov/disease-control/tickborne-diseases)

