

## Lyme Disease on Bustins? Possibly. by Sue Spalding

The Board of Overseers was asked if there were any way to reduce the possibility of contracting Lyme disease on Bustins. In order for the Lyme spirochete to be present three elements are necessary: deer ticks, white-footed mice, and deer.

Ticks hatch free of the Lyme bacteria. The first meal of the hatching larvae is from the white-footed mouse, from which they can become infected. As they pass through the next stage as nymphs they feed on various other hosts, and finally as adults they feed on deer. It is this deer meal that is necessary for them to develop eggs and start the cycle again. There can be other incidental hosts along the way, but basically, if any of the three players, ticks, mice, or deer are absent, the bacteria cannot live. What can we do to help control any these hosts?

**Ticks:** Our roving gang of turkeys will eat ticks, as will other birds. Since the ticks feed heavily on mice, there is a mouse-enabled device to kill the ticks. By infusing cotton with the insecticide, permethrin, placing the cotton in toilet paper rolls, and tucking the rolls around your yard (under leaves, in crevasses, etc), the mice will take the cotton to use as nesting material, and the permethrin kills the ticks in the mouse nests. You can make these yourself or purchase commercially. Google “tick tube”

**Mice:** White-footed mice are fairly new to Bustins, probably brought over by the box we grab from home from the garage or barn. There are also voles on Bustins, but these rodents do not come in your house. If there are both hosts available, ticks will choose the mice.

Natural predators of mice include owls, hawks, foxes, mink, and snakes. The presence of these predators fluctuates on Bustins. Last year we had few of them. We can kill mice in traps. We should not poison them however, as that may also poison these predators that eat mice. Any mice live-trapped need to be brought to the mainland, as they can home up to 2 miles. Putting mice on other islands would upset the ecology there, as happened to us with woodchucks.

**Deer:** Monhegan Island successfully eradicated Lyme disease from their island by removing all the deer. Since Monhegan is far from the mainland, no deer can get to the island on their own. However, our deer population is fluid – they can come and go off the island as they please. When we asked the state to talk with us about deer control on Bustins we learned that deer can be hunted during the state deer-hunting season, roughly November. However, we do not permit the discharge of firearms on Bustins due to the presence of people on the island off-season, and we have not wanted Bustins to become a destination for mainland hunters. Archery hunting is permitted by the state in October. Only the state can regulate hunting in any way. For more information about ticks and islands read [Of Ticks and Islands](#) by Peter W. Rand, MD.

Protecting ourselves: We should wear protective clothing and an insecticide, and most important, do a daily total body check involving a full-length mirror, a hand mirror, and a good light. It takes 24-36 hours to become infected, and not all ticks carry the bacteria. When removing ticks do not do anything that will cause the them to regurgitate more bacteria into the wound, such as touch it with a hot match-head, put peppermint oil on it, etc. Use a pair of tweezers or a tick remover (not the twisting kind). Dispose of the ticks by burning in a tissue in your fireplace or putting them in some alcohol. Do not cut it or smash it, as you do not want to be exposed to its innards. Check your pets and remove ticks from them, as well, as it's only a quick crawl from them to you.

Keep in mind that not all Lyme disease contracted by islanders came from Bustins. There are plenty of mainland opportunities to get it.

There is much more to learn about Lyme and its hosts. I recommend the University of Rhode Island site [tickcounter.org](http://tickcounter.org).