

Do ticks hover?

The tick rarely moves on its own. Typically, it just goes up and down blades of grass and lower itself into the soil.

However, a tick can cover a great distance with its host animal.

Why ticks are by far the most prevalent insects or animals on the coasts of countries, in the archipelago and in lake areas?

In all of those areas, the wind is considerably stronger than the inland regions.

Who spreads ticks across the archipelago and the coasts?

Usually, the answer is birds and, yes, they certainly do spread ticks but why on the coasts?

The shape of the tick specifically caught my attention as I examined their movement. Seen directly from the side, the tick is really flat and lean and thus created to hover.

Could ticks spread by hovering in the wind?

A tick normally hides from its prey on a blade of grass, and if a flat tick were to detach its grip from that blade in high winds, it would ride the wind really well like a kite.

On the coasts, in the archipelago and the lake areas, winds are much stronger and more frequent than inland. As a result, it would be easy for the tick to spread to the windiest area, even to the most remote islands and the coasts.

Some would fall into the sea but others would hover over islands and the coasts. That's where the hovering tick would probably find, hit and cling to the bushes and trees existing there.

After all, the tick is blind. This means it would hardly know what it has gripped with its feet. Usually, a tick that ends up in a tree will climb down and eventually reach the ground but it could fall.

Legend has it that ticks live in alder trees and jump on people but that has been proved false by the experts repeatedly.

But does the old belief have some truth to it after all? Alder trees generally grow on the coasts and that's what the tick would first land on when carried by the wind. If a tick in a tree feels movement, heat, and carbon dioxide below, it could very well fall and even hit the target.

During strong winds and storms, ticks would also be able fly far inland. Even inland during strong winds, ticks could detach and move with the wind, especially along bodies of water like lakes, rivers and streams.

An adult tick lays up to 2,000 eggs and numerous larvae will hatch.

How do these little larvae staying in one place spread when on they can barely move on their own?

Small animals play a big role in their transport but a small caterpillar climbing a blade of grass can very well loosen its grip in windy weather if the long wait hasn't brought the animals to the scene.

I've also heard from different sources that sometimes ticks have been found from light-colored sheets that were hung up to dry outside. Nowadays, sheets are not dried outside as much.

I experimented with the hovering ability of ticks indoors in a garage with a fan and I found that they did hover well after detaching from the blade of grass.

Lifespan of the tick (*Ixodes ricinus*)

According to my tests, ticks live:

- One to three hours in direct sunlight, 35-40 C (95-104 F)
- One to three days inside, depending on humidity
- months inside a flower pot that is watered
- Four weeks in lake water
- Ten weeks in seawater

- In sunlight

Ticks do not tolerate dry and warm air. My experiment found that, in the hot sun, about 35-40 degrees Celsius (95-104 F), small larvae of ticks die almost immediately. Adult ticks can withstand such heat for just over an hour.

Thus, ticks do not thrive in sunny places but rather seek shelter in trees and bushes. As a result, ticks do not thrive on short-cut grass because they come in direct contact with the heat of the sun.

Additionally, ticks do not live on the golf course fairways for this reason but ticks thrive right outside the fairway in shady places in the long grass and under the bushes.

Under the bushes and flower beds in yards are great places for ticks. For the same reasons, ticks do not reside in open pasture in the same way as they do grassland shaded by shrubs and trees.

Instead, a brown dog tick (*Rhipicephalus sanguineus*), originating from the Mediterranean, lives in a dry and hot, African-style climate.

- Indoors

For example, if a tick gets indoors with a dog or cat and falls to the floor, it will die within a few days, depending on the humidity of the room.

In the dry air of a room, tick can die in a day. But if a tick gets into a flowerpot full of water, for example, it will live in for months. That means that, even in the winter, through bad luck, you can get the tick indoors.

- In the water

Ticks falling from flying birds can also land into the sea and lakes. The blind tick probably does not sense whether there is land or water below.

Such ticks do not die immediately when they fall into the water. They stay afloat for up to a couple of days in calm weather and then survive underwater in seawater (brackish water = Baltic Sea) for up to 10 weeks (The experiment continues), in lake water for four weeks.

If ticks find suitable debris and leaves in the water, they can drift for months. Plastic drifting into the seas and lakes help spread ticks. This allows the tick to land in the shore with suitable winds and sea currents.

Islands that can be landed from any direction are good sites. The fish certainly eat some of the ticks that have fallen in the sea.

Sea currents and wind directions affect where the ticks drift. The directions are affected by the sea currents and wind directions.

The prevailing wind in Finland is from the southwest and, for example, the northernmost part of the Gulf of Bothnia is ravaged by winds and storms and the region has a large population of ticks.

In large inland lake areas, ticks are likely to spread through the sea and on the coasts such as the U.S.-Canadian border and Sweden's large lakes. Ticks usually spread from the coasts to the inland in other parts of the world such as the American East Coast, Australia, Canada, Ireland, Norway and Sweden.

Please find and view an animation of the spread of ticks on the East Coast of the United States between 2012 and 2017.

The most likely landing sites for ticks floating with the wind and the water are the shores of seas, lakes and islands.

Some instructions have suggested killing the tick by flushing it down the toilet but this is not a recommended method of disposing of a tick. Collecting ticks on masking tape and burning is effective.

Magazine articles have been published about instances of ticks being placed in the sewers and they would come crawling back from the sinks or toilets. Ticks would find feeding platforms from mice and rats in the sewer network although reproduction might be more difficult due to the lack of larger animals.

The tick would easily survive all the way to the wastewater treatment plant and could thus drift to the landfill and birds would pick them up and bring them back.

Otherwise, ticks even survive the process of composting and make their way back to the yards. The tick even survives the cycles of the washing machine fully alive and well.

Tick brothels and farms

Ticks that have reached mating age seek the tallest hay and try to attach to larger animals. Elk and deer moving in the woods provide a brothel for ticks. A large animal may have several dozen ticks.

It is also easy for an adult tick to find a mating partner from the back of a large animal. Adult males are not in a rush to find a mating partner from such a large animal. More than one male may mate with the same female tick while it is eating.

Finding a mating partner is certainly much more challenging in the terrain. As adults, elk and deer move mainly within their own territories and are effectively spreading ticks on that area.

The archipelago, coasts and other such areas with large tick populations should control the population of these animals, which is lower than normal. So far, there are no ticks in reindeer herding areas like in the southernmost areas of (Finland or Scandinavia?).

However, as a result of global warming, ticks are slowly spreading further north and reindeer, together with other deer, are a good breeding ground for ticks.

Similarly, cows and sheep grazing in wooded terrain are popular with ticks. At one time, more than 60 years ago, when cows were more commonly grazed in wooded pastures, ticks were already present.

When this type of grazing ended, the tick population in these areas also decreased considerably. In 2019, I have caught over 1,700 ticks in one hour from an old beef cattle area the size of only 1000 m², mainly larvae. (Please consult the resulting images on our website.)

Such pastures, especially in the archipelago, are tick farms and spread them to the surrounding area.

In my estimation, an island with a large number of beef cattle and sheep grazing in wooded terrain, can produce a huge number of ticks during the summer. Not all of the ticks remain on the island but a large crowd sets out to hover with the strong winds.

Public perception has always been that a considerable number of ticks in the yard are spread by deer.

The tick usually stays in its host for 3-12 days, sucking blood. Deer usually linger in the yard for only a few minutes so those ticks hardly fall.

In addition, if there are already ticks on the site, during a such visit, they may even be picked up by the animal.

If, on the other hand, an adult female with a mating partner happens to fall into the yard, there may be small larvae in the yard within a few months. An adult female tick dies after laying.

***TicksBuster* tick trap**

With ***TicksBuster*** tick trap, you reduce the number of active ticks in your yard.

The University of Helsinki conducted an experiment in Espoo in 2020, which compared the effectiveness of the ***TickBuster*** trap with that of a white sheet trap of the same size. In addition to the sheet, the ***TicksBuster*** trap has carbon dioxide cartridges and heat generated by heating pads to attract ticks.

The result? To wit:

About forty-three ticks were collected with the control trap and 74 with the ***TicksBuster*** trap. Thus, almost twice the number of ticks were collected with the ***TicksBuster*** trap.

Compared to our previous experience in collecting ticks by a plain sheet, it is noted that the ticks stood out well from the ***TicksBuster*** trap, no debris accumulated and the trap moved well. Report: see **News** tab

University of Helsinki blog: TICK TRAP FOR YARD AND FOR THE RESEARCHERS

From the average consumer's point of view, the ***TicksBuster*** sheet proved to be effective in removing ticks. It can be used to exterminate ticks from the terrain more effectively than with a sheet alone. In addition, it was found that the sheet was also well suited for research use. It collected little debris and was light to use.

Here is the blog of the University of Helsinki: <https://blogs.helsinki.fi/andaction/2020/06/23/punkkipyydys-kotipihalle-ja-tutkijoiden-kayttoon/>

As discussed above, ticks are not active in dry and hot weather and move to the terrain for shelter. Tick traps should not be used either in dry and hot weather. Instead, in rainy weather, for example, ticks remain in their positions on the blades of grass and actively seek out an object they could attach to.

Lyme documentary: The Red Ring (90 minutes)

Film director **Joonas Berghäll**, who suffers from chronic Lyme disease and other tick-borne infections, is looking for a cure to his illness and answers as to why there is no attempt to stop the global epidemic of Lyme disease.

Jonah meets with numerous patients, doctors, researchers, and experts around the world to seek answers to the core question: Patients are real, the symptoms are real, the disease and the bacteria that cause it are real. Why is the disease not taken seriously? Why are hundreds of millions of people suffering?

The documentary also features our ***TicksBuster*** product. We urge you to watch it.