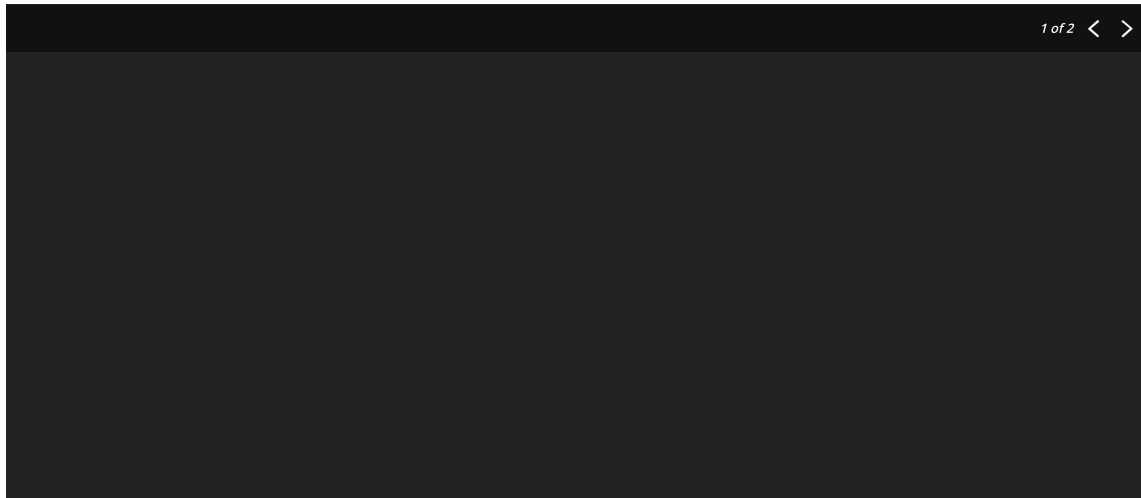


## Tick program heeds warning about lone star tick

*Doctors and scientists still have questions on the alpha-gal syndrome.*

By **Sam Canfield** - February 15, 2023



The Martha's Vineyard Tick Program is calling the alpha-gal syndrome their "biggest concern" for the second year in a row. They say the population of lone star ticks is outpacing other species in certain areas of the Island.

Transmitted by the lone star tick, the incurable illness gives subjects an allergy to red meat, gelatin, and sometimes dairy products, and can last for months or even years.

The chief biologist at the Island tick program, Patrick Roden-Reynolds, says there were dozens of known cases of AGS on-Island in 2022, but likely many more that have gone unreported.

According to Roden-Reynolds, lone star ticks began appearing up-Island and on Chappaquiddick roughly 10 years ago, likely on the backs of seabirds passing through. Since then, the lone star population has gradually surpassed the deer tick and dog tick populations in those areas, and has officially been found in all six towns as of 2019.

In addition to a rapid increase in prevalence on-Island, what makes alpha-gal syndrome so concerning is how undeveloped the body of science surrounding it is. The first cases of alpha-gal syndrome started popping up only 20 years ago, and its status as a "nonreportable disease" makes cases hard to track.

Essentially, it hasn't made its way into governmental databases and high-profile research projects just yet, said Roden-Reynolds. So even though Lyme disease is much more common on-Island, it has a known cure, and doctors and residents "have a handle on it," both locally and nationwide.

Furthermore, Roden-Reynolds and the Vineyard tick program can only verify cases face-to-face. He stated that he's "willing to bet there are many more people with AGS" he hasn't spoken with.

The symptoms for those who incur the allergy range from mild aches and digestive issues to hives, and even anaphylactic shock. Scientists aren't quite sure what dictates the severity and duration of the syndrome, but believe it is tied to the number of bites from separate ticks. Either naturally or picked up from other mammals, the ticks carry alpha-gal sugar in their saliva, and can induce an immune response from the humans they bite. The alpha-gal sugar itself is found in all mammalian animal products, but becomes an allergen for humans once this immune response occurs.

Moving forward, the next steps for the M.V. Tick Program are to continue raising awareness about alpha-gal syndrome, and on how to find the lone star ticks. Named after the white star on females' backs, lone star ticks are known to be found in open, grassy fields, unlike the typical deer tick. Furthermore, they are only active from April through August, not year-round. Larvae "tick bombs" are active August through October, and will bite, but are likely sterile, said Roden-Reynolds.

Meanwhile, both adults and nymphs can transmit alpha-gal syndrome, ehrlichiosis, Southern tick-associated rash illness (STARI), and tularemia.

Roden-Reynolds and his team will continue to closely research the ticks throughout the year, and hope to update the public with more information in the future.