

Killing ticks through controlled burns

Friday, December 27, 2019

<https://danielcameronmd.com/killing-ticks-through-controlled-burns/>

In the short run, we can kill ticks, [explains Hodo and colleagues](#). “Controlled burns may affect tick populations, pathogen prevalence, and risk of pathogen exposure to humans and animals and therefore may be a useful tool in integrated tick management.” wrote Hodo in an article addressing killing ticks.

“We found a marked difference in density of host-seeking ticks between transects with different burn histories and an overall low prevalence of known pathogens,” Hodo writes.

According to their survey, the number of ticks was reduced from 15 and 18 ticks per 1000 m² in unburned areas to 2 and 4 ticks per 1000 m² burned areas. “We observed low questing tick density in areas with a history of controlled burns,” Hodo explains.

Researchers collected 112 ticks from drag samples. The majority (2 out of 3) were *Ixodes scapularis* ticks, also known as the deer tick. The remaining were *Amblyomma americanum* ticks (lone star tick).

They were also able to collect 106 ticks from drag operators’ clothing, confirming the occupational hazard for researchers.

Borrelia burgdorferi, the causative agent of Lyme disease, was not detected in any of the ticks. However, researchers were able to detect a high prevalence of *Rickettsia* and a low prevalence of relapsing fever in the collected ticks.

Other studies investigating the impact of killing ticks using controlled burns have had mixed results, according to Hodo’s review of the literature.

Editor’s Note: While controlled burns did demonstrate a reduction in the number of ticks, the long-term effect is uncertain. The tick population could potentially return once the flora re-emerges.

Related Articles:

[Will eliminating deer help stop the spread of infected ticks?](#)

[What blood type do ticks prefer?](#)

[Permethrin treated clothing causes "hot foot" effect in ticks](#)

References:

1. Hodo CL, Forgacs D, Auckland LD, Bass K, Lindsay C, Bingaman M, Sani T, Colwell K, Hamer GL, Hamer SA. Presence of diverse Rickettsia spp. and absence of Borrelia burgdorferi sensu lato in ticks in an East Texas forest with reduced tick density associated with controlled burns. Ticks Tick Borne Dis. 2019 Oct 17:101310.

Latest From the Lyme Disease Science Blog

Killing ticks through controlled burns - <https://danielcameronmd.com/killing-ticks-through-controlled-burns/>