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## EXTINCTION OF A *DERMACENTOR VARIABILIS* (SAY) TICK INFESTATION (ACARI: IXODIDAE)

Infestations of *Dermacentor variabilis* in interior Massachusetts were characterised by, 1. extreme localization within a tick-free region, 2. their occurrence after rural areas were built up with houses, 3. their location in a winter survival microhabitat with a high water table, and 4. the presence of pet dogs (McEnroe W. D., 1974: *Acarologia* 19: 618-625). Such an infestation was followed for 3 tick seasons by tick burdens on a dog with total collections of 942, 1,480, and 1,196 ticks. The infested area was ca 3 ha (McEnroe W. D., 1974: *Acarologia* 16: 207-219).

This area, after the dog was absent for 5 years, was found to be tick free. The absence of the infestation was not due to climatic regulation because similar infestations survived extreme winter regulation (McEnroe W. D., 1984: *Z. ang. Ent.* 97: 481-484).

In its daily rounds, the dog traversed the

infested area. Although the dog was groomed every evening, some females completed engorgement because engorged females were found in the house. The limited home range of the dog resulted in some engorged females dropping off in the survival area. The limited movement of the immature hosts, *Microtus pennsylvanicus*, maintained the local population. Only a few engorged females were required because of their large egg production (McEnroe W. D., 1981: *Folia parasitol.* 28: 381-383) and the constant presence of the adult host.

Not only did the dog support the infestation, but also its habit of dropping off unattached ticks in the house and automobile exposed the occupants to risk of tick exposure.

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