

What's Eating You?

Dermacentor variabilis

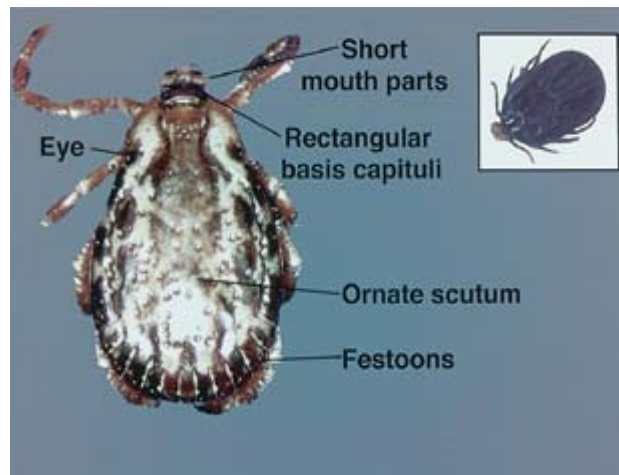
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Dermacentor variabilis (the American dog tick) is a large tick with brown legs and short mouthparts attached at a rectangular basis capituli. The scutum (hard dorsal plate) is ornate (decorated with markings). Eyes and festoons are present. Specimens of *D variabilis* tend to be more silver than the slightly yellow hue often seen in *Dermacentor andersoni*. As in *D andersoni*, coxa 1 (the attachment base for the first pair of legs) is bifid and coxa 4 is greatly enlarged in the male. The spurs on coxa 1 are parallel or only slightly divergent. Males lack ventral plates. The inset in the figure shows an engorged female. The scutum on the female is small, leaving room for engorgement of the abdomen.

D variabilis tick bites present as variably pruritic papules, usually on the head or neck. Occasionally they may be found on the trunk, especially when clothing has impeded the upward progress of the tick. In some individuals, large urticarial plaques occur around the site of the tick attachment. Pseudolymphomatous nodules also may occur. Milder reactions may respond to topical corticosteroid preparations, although intralesional corticosteroid injections are often necessary to control the pruritus. Some lesions respond only to excision.

D variabilis preferentially attaches to the head and neck region, unlike *Amblyomma americanum*, which prefers the lower legs, buttocks, and groin, and *Ixodes scapularis*, which shows less site preference.¹ In Georgia and South Carolina, *D variabilis* is the second most common tick found on humans (*A americanum* is the most common).²

D variabilis is found throughout the United States, except the Rocky Mountain states. In parts



Dermacentor variabilis (inset shows an engorged female).

of Canada, its range overlaps with that of *D andersoni*. It is the major vector for Rocky Mountain spotted fever in the United States. The highest incidence of Rocky Mountain spotted fever is in the Eastern states (especially North Carolina) where the tick resides. It is also a vector of tularemia and may be a vector of human monocytic ehrlichiosis, although *A americanum* is probably the major vector.^{3,4} Similarly, the Lyme disease spirochete has been found in *D variabilis*, but its importance as a vector is questionable.^{5,6}

Dermacentor is the tick genus most often associated with tick paralysis in the United States. Tick paralysis manifests as an ascending paralysis and can be fatal. Onset is usually 5 to 7 days after attachment of a female tick. Removal of the tick is curative. Unfortunately, the diagnosis is often overlooked, and the tick is found by the mortician.

The major means of protection against tick bites include avoidance of infested areas, use of personal protection with repellents, treatment of clothing with permethrin, and treatment of pets with oral or topical agents prescribed by a veterinarian. In addition, nematodes may prove useful as a biological control method.⁷

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CLOSE ENCOUNTERS WITH THE ENVIRONMENT

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