

TICK INFORMATION SHEET

The Deer Tick

Ixodes dammini (Spielman, Clifford, Piesman, and Corwin, 1977)

The common name of this tick is given to it because the white-tailed deer was the first host that was identified to be infested with this new tick species.

DISTRIBUTION AND SEASONAL ACTIVITY

Ixodes dammini is common in the United States in the coastal areas of the Northeast from southern Delaware to Maryland and in the upper midwest in Minnesota, Michigan, Illinois, Indiana, and Wisconsin. It is spreading into new areas. Adult ticks are most abundant on hosts in the spring and fall and may remain on their hosts throughout the winter; larvae and nymphs are more abundant in the summer.

HOSTS AND LOCATION ON HOST

Adult ticks prefer to feed on large mammals such as deer, dogs, horses, and humans. Larvae and nymphs primarily feed on birds and small mammals such as raccoons, white-footed mice, cotton-tail rabbits, meadow voles, opossums, eastern chipmunks, and red squirrels. All three stages of tick will feed on humans. Adults usually attach on the head and neck of their hosts.

LIFE CYCLE SUMMARY

Ixodes dammini is a three-host tick. Under normal conditions, its life cycle in coastal areas of northeastern United States usually lasts 2 years. Eggs are deposited in the spring, and the larvae emerge several weeks later. They feed once in the summer. The larvae molt the following spring into nymphs. Nymphs also feed once during the summer before molting

into adults in the fall. Adults attach themselves to a host, usually white-tailed deer, on which they mate. Males die shortly thereafter, but females continue to feed to obtain the nutrients necessary for egg production. Females lay their eggs and die, and the cycle is repeated. The deer tick may take 2 years to complete its life cycle (Fig. 1).

TICK-BORNE DISEASES

Ixodes dammini plays an especially important role in the maintenance and spread of the spirochete *Borrelia burgdorferi* among wild and domestic animals (Fig. 2). This spirochete is the causative agent of Lyme borreliosis in humans and transient or recurrent arthritis in dogs and possibly in cats.

SELECTED REFERENCES

1. Habicht GS, Beck G, Benach JL: Lyme disease. *Sci Am* 257:78-83, 1987
2. Reotutar R: The ominous spread of *Borrelia burgdorferi* infection. *J Am Vet Med Assoc* 194:1387-1391, 1989
3. Wickelgren I: At the drop of a tick. *Science News* 135:184-187, 1989