Ticks that Pose Public Health Problems in Jackson County, Illinois

American dog tick
(*Dermacentor variabilis*)

American dog tick (*Dermacentor variabilis*) is the most commonly identified species responsible for transmitting *Rickettsia rickettsii*, which causes Rocky Mountain spotted fever in humans. The American dog tick can also transmit tularemia. This tick is widely distributed east of the Rocky Mountains and also occurs in limited areas on the Pacific Coast. *D. variabilis* larvae and nymphs feed on small rodents. Dogs and medium-sized mammals are the preferred hosts of adult *D. variabilis*, although it feeds readily on other large mammals, including humans.

American dog tick is main vector of Rocky Mountain spotted fever (RMSF). Jackson County is often ranked high on the list of Illinois counties with human cases of RMSF. Also a possible vector of ehrlichiosis.

Blacklegged (Deer) tick
(*Ixodes scapularis*)

The blacklegged tick (*Ixodes scapularis*), commonly known as a "deer tick", can transmit the organisms responsible for anaplasmosis, babesiosis, and Lyme disease. This tick is widely distributed in the northeastern and upper midwestern United States. *I. scapularis* larvae and nymphs feed on small mammals and birds, while adults feed on larger mammals and will bite humans on occasion. It is important to note that the pathogen that causes Lyme disease is maintained by wild rodent and other small mammal reservoirs, and is not transmitted everywhere that the blacklegged tick lives. In some regions, particularly in the southern U.S., the tick has very different feeding habits that make it an unlikely vector in the spread of human disease.

Blacklegged tick is main vector of anaplasmosis. This tick also main vector for Lyme disease and babesiosis. Human cases of these diseases are periodically seen in Jackson County.

Brown dog tick
(*Rhipicephalus sanguineus*)

The brown dog tick (*Rhipicephalus sanguineus*) has recently been identified as a reservoir of *R. rickettsii*, causing Rocky Mountain spotted fever, in the southwestern U.S. and along the U.S-Mexico border. Brown dog ticks are found throughout the U.S. and the world. Dogs are the primary host for the brown dog tick for each of its life stages, although the tick may also bite humans or other mammals.

Brown dog tick is a vector of Rocky Mountain spotted fever along the border with Mexico. Unknown at this time if it is also a vector of the disease in Illinois.

Lone star tick
(*Amblyomma americanum*)

The lone star tick (*Amblyomma americanum*) transmits *Ehrlichia chaffeensis* and *Ehrlichia ewingii*, causing human ehrlichiosis, tularemia, and STARI. The lone star tick is primarily found in the southeastern and eastern United States. White-tailed deer are a major host of lone star ticks and appear to represent one natural reservoir for *E. chaffeensis*. *A. americanum* larvae and nymphs feed on birds and deer. Both nymphal and adult ticks may be associated with the transmission of pathogens to humans.

Lone Star tick is main vector of ehrlichiosis. Jackson County is often ranked high on the list of Illinois counties with human cases of ehrlichiosis. This tick is main vector for tularemia and also transmits Heartland virus (found in many states adjacent to Illinois).

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