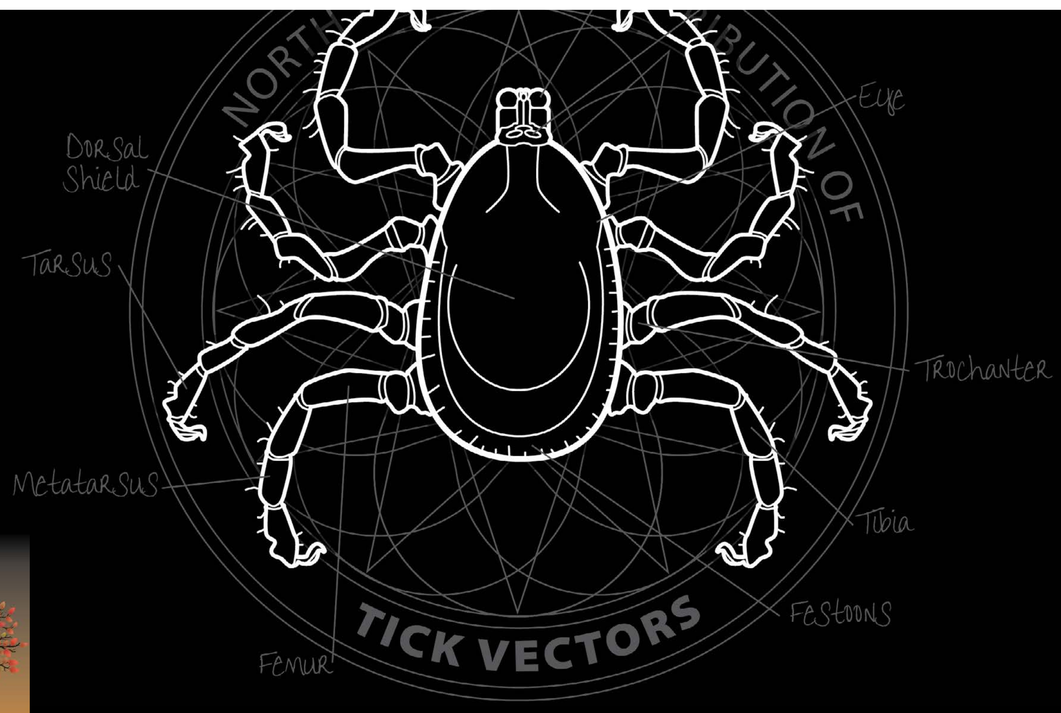
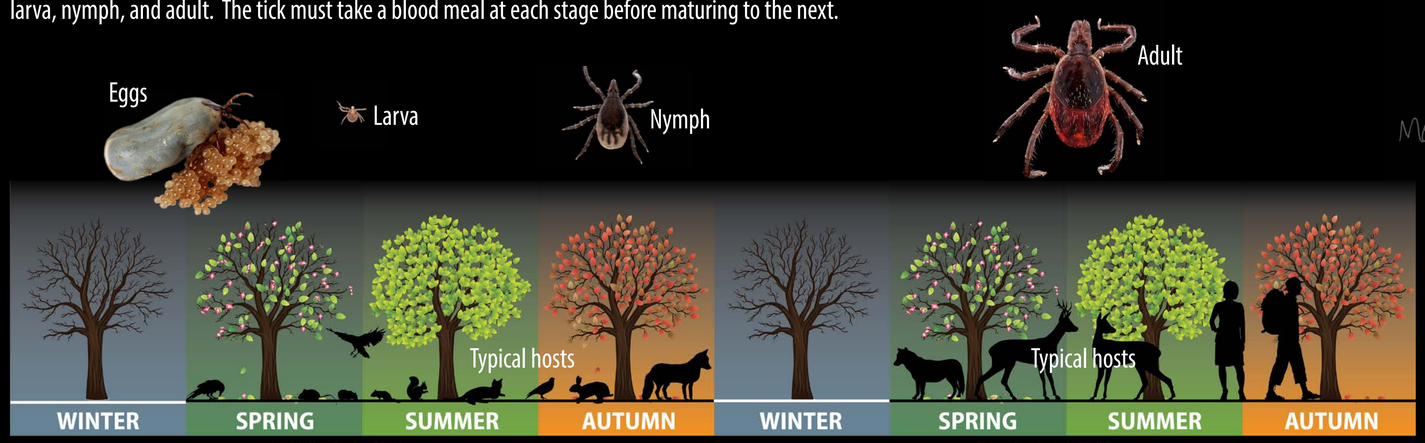
North American Distribution of Tick Vectors

Prints available for order at https://ephc.amedd.army.mil/HIPECatalog/



Life cycle of Ticks

Ticks will have a one to two year life cycle. For example, *Ixodes scapularis*, the deer tick, has a two-year life cycle, during which time it passes through three stages: larva, nymph, and adult. The tick must take a blood meal at each stage before maturing to the next.



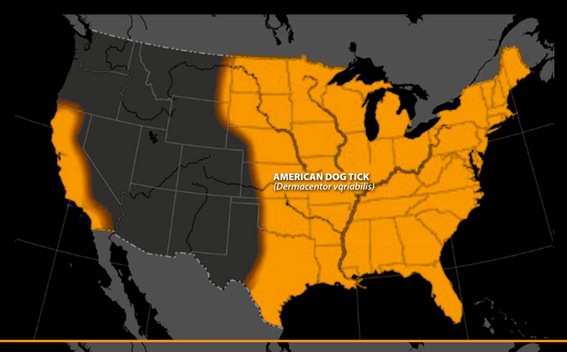
American Dog Tick

Dermacentor variabilis

TRANSMITS:
- Rocky Mountain spotted fever *(Rickettsia rickettsii)*
- Tularemia *(Francisella tularensis)*

GENERAL INFORMATION:
- Can cause tick paralysis in animals and humans
- Only adults feed on people. Nymphs and larvae do not feed on large animals or people
- Slow moving tick; not as aggressive or as quick to bite as the lone star tick

WHERE FOUND:
- Fields and other grass and shrub-dominated habitats
- Widely distributed east of the Rocky Mountains and limited areas on the Pacific Coast



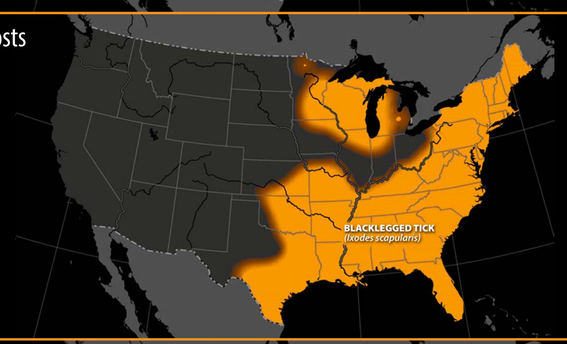
Blacklegged Tick

Ixodes scapularis

TRANSMITS:
- Lyme disease *(Borrelia burgdorferi, Borrelia mayonii)*
- Anaplasmosis *(Anaplasma phagocytophilum)*
- Babesiosis *(Babesia microti)*
- Ehrlichiosis *(Ehrlichia muris eauclairensis)*
- Borrelia miyamotoi disease *(Borrelia miyamotoi)*
- Powassan encephalitis (Powassan virus)

GENERAL INFORMATION:
- Slow moving, not as aggressive as the lone star tick
- Adults are active in fall, winter, and early spring and prefer larger hosts
- Larvae and nymphs are active in the spring and summer and feed mostly on small animals, but will feed on humans
- Nymphs are responsible for the majority of Lyme disease cases

WHERE FOUND:
- Widely distributed in the northeastern and upper midwestern US, and at lower densities throughout much of the eastern US
- Woodland habitat with leaf litter



Brown Dog Tick

Rhipicephalus sanguineus

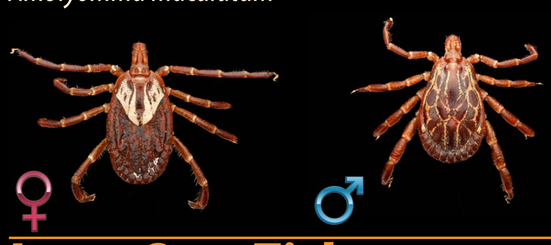
TRANSMITS:
- Rocky Mountain spotted fever *(Rickettsia rickettsii)* in Mexico and Arizona
- Numerous domestic animal pathogens

GENERAL INFORMATION:
- Can complete its life cycle in one year, and can complete its life cycle indoors
- Can infest dogs and their kennels by the thousands
- Deposits eggs in cracks and crevices near where dogs sleep, therefore control/treat the animal and the surrounding area at the same time

WHERE FOUND:
- Worldwide
- Predominately in and around human structures, especially dog kennels

Gulf Coast Tick

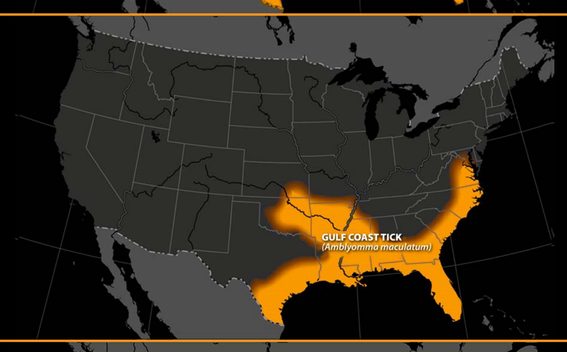
Amblyomma maculatum



TRANSMITS:
- Tidewater spotted fever *(Rickettsia parkeri)*

GENERAL INFORMATION:
- When ticks are infected with the agent of Tidewater spotted fever, there is often a characteristic scab (eschar) that looks like a cigarette burn at the bite site
- Generally, only adult ticks bite humans
- This species is a common pest of livestock throughout its range
- Larvae and nymphs typically feed on small mammals and birds

WHERE FOUND:
- Open prairie, scrubland, and grass-dominated habitats
- Along the Gulf Coast and beyond; this tick is expanding its range and now becoming more common in the Mid-Atlantic



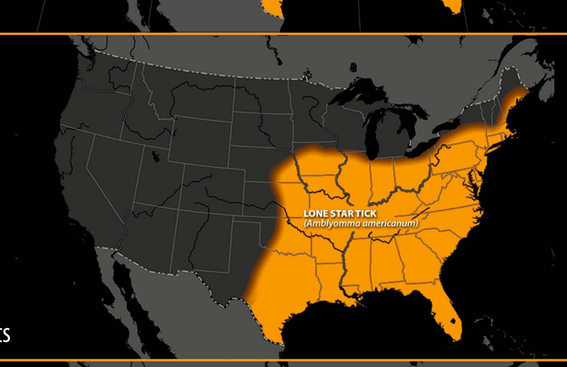
Lone Star Tick

Amblyomma americanum

TRANSMITS:
- Ehrlichiosis *(Ehrlichia chaffeensis, Ehrlichia ewingii,* Panola mountain *Ehrlichia)*
- Southern Tick Associated Rash Illness (STARI–etiologic agent unknown)
- Heartland virus disease

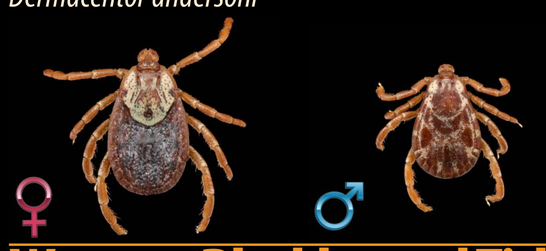
GENERAL INFORMATION:
- Very aggressive human-biter at all life stages
- Bite can result in a painful, itchy and irritating welt, regardless of infection status
- The adult female is easily recognized because of the white spot in the middle of the back
- Small nymph life stage can be easily confused with small nymph blacklegged ticks – both are active during the summer months
- Implicated to cause red meat (alpha gel) allergy

WHERE FOUND:
- Widely distributed in the southeastern and eastern United States
- Forests, fields, brushy areas, areas with leaf litter, and "edge" habitats



Rocky Mountain Wood Tick

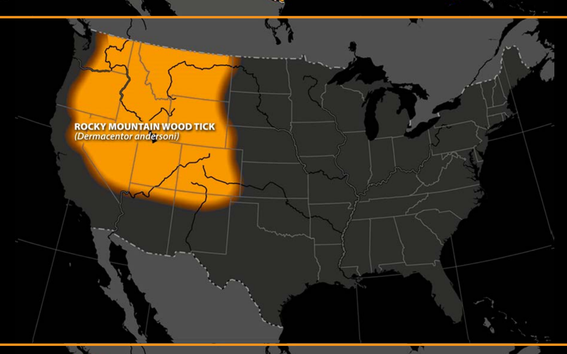
Dermacentor andersoni



TRANSMITS:
- Colorado tick fever virus
- Rocky Mountain spotted fever (RMSF) *(Rickettsia rickettsii)*
- Tularemia *(Francisella tularensis)*

GENERAL INFORMATION:
- The saliva of this tick contains a neurotoxin that can occasionally cause tick paralysis; a bite from an adult female can induce an ascending paralysis that dissipates within 24-72 hours after tick removal
- Adult ticks feed primarily on large mammals
- Larvae and nymphs feed on small rodents
- Adult ticks are primarily associated with pathogen transmission to humans

WHERE FOUND:
- Rocky Mountain States and Southwestern Canada
- Semi-arid and mountainous areas, at elevations of 4,000 to 10,500 feet



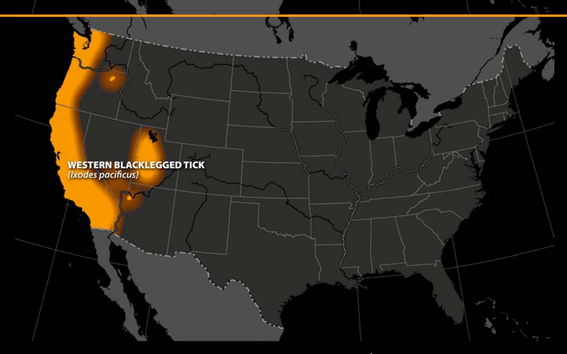
Western Blacklegged Tick

Ixodes pacificus

TRANSMITS:
- Lyme disease *(Borrelia burgdorferi)*
- Anaplasmosis *(Anaplasma phagocytophilum)*
- Borrelia miyamotoi disease *(Borrelia miyamotoi)*

GENERAL INFORMATION:
- Nymphs often feed on lizards and other small animals
- Nymphs and adult females are most likely to bite humans

WHERE FOUND:
- Wooded habitats with leaf litter
- Throughout California and Western states along the coast and inland



Ticks are not to scale

Contact the Entomological Sciences Division for more information on ticks, tick-borne diseases and prevention at 410-436-3613 or email at usarmy.apg.medcom-aphc.mbx.pesticide-hotline@mail.mil

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