



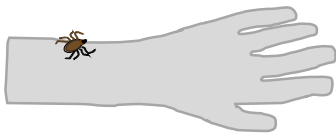
# Citizen Science Tick Surveillance at Jasper Ridge

## Study Overview

Tick-borne diseases pose a serious threat to public health in the US. To understand the local risk and spatial patterns of tick-borne disease, we are launching a tick surveillance project in Jasper Ridge. We are collecting ticks from around the preserve to determine the local abundance of different ticks and tick-borne pathogens. We now invite the Jasper Ridge community to engage in this surveillance effort by submitting any ticks encountered while at the preserve. By submitting a tick, you are helping expand our sampling efforts, spreading awareness of tick-bite risk and prevention, and contributing to a growing understanding of the local risk of tick-borne disease.

## How to participate:

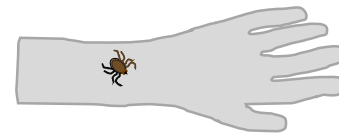
1. Please take a collection kit with you to bring about the preserve. The kits contain instructions and materials to safely remove and preserve ticks for further research.
2. If you encounter a tick while at the preserve, please follow one of the two options below.



**If the tick was crawling on your skin or clothing**



1. Use the tweezers to pick up the tick
2. Place the tick in one of the pre-labeled collection tubes
3. Deposit the collection tube in the box at the main building at Jasper Ridge
4. Record the date & approximate location of encounter
  1. (OPTIONAL) Provide your email address if you would like us to follow up with you about the tick
5. We will pick up the collection tube, identify the tick species and life stage, and test the tick for potential pathogens
  1. If you provided an email address, we will follow up with you (~ 1 week later) with the tick species and life stage



**If the tick bit you**



1. Use the tweezers or tick removal tool to remove the tick (see instructions in kit)

*We can not test ticks that have bitten people. However, you can send the tick to the Bay Area Lyme Foundation for free tick testing. To do this:*

1. Place the tick in one of the pre-labeled collection tubes
2. Deposit the tube in an envelope marked for Bay Area Lyme Foundation, available in the main building at Jasper Ridge
3. Fill out the Bay Area Lyme Foundation tick testing form and place this in the envelope
4. Take the envelope with tick and completed form and deposit in the mail.
5. Bay Area Lyme Foundation will follow up with you about your tick (~ 2 weeks later)

**Thank you!**

Please feel free to contact us with any questions about the study : [lcouper@stanford.edu](mailto:lcouper@stanford.edu)

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# Local Tick Species

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 Tick Encounter Resource Center

*Ixodes pacificus* (Western-Blacklegged Tick)



## *Ixodes pacificus*

Commonly known as the Western black-legged tick, *Ixodes pacificus* is the primary vector for Lyme disease (caused by the bacterium *Borrelia burgdorferi*) in the Western US.

Early life stages of *Ixodes pacificus* feed during the spring and early summer, while the adult life stages are most active during the winter, seeking hosts from late fall to spring.



 Tick Encounter Resource Center

*Dermacentor occidentalis* (Pacific Coast Tick)



## *Dermacentor occidentalis*

Commonly known as the Pacific Coast tick, *Dermacentor occidentalis* is the most common tick found throughout California. All life stages of this tick can transmit Rocky Mountain spotted fever (caused by the bacterium *Rickettsia rickettsii*) to humans, cats, and dogs.

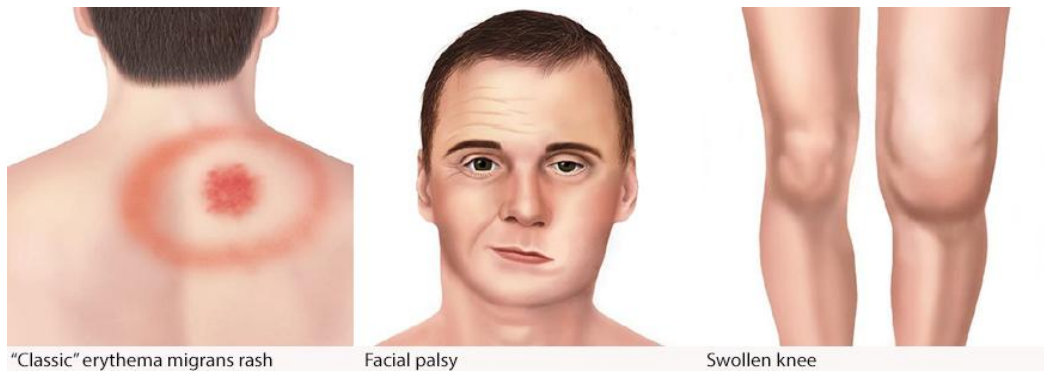
While they can be active year-round, peak activity of *Dermacentor occidentalis* ticks occurs during the cooler months, especially April and May. Adults tend to feed on cattle, horses, deer, and other larger mammals.

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# Lyme Disease

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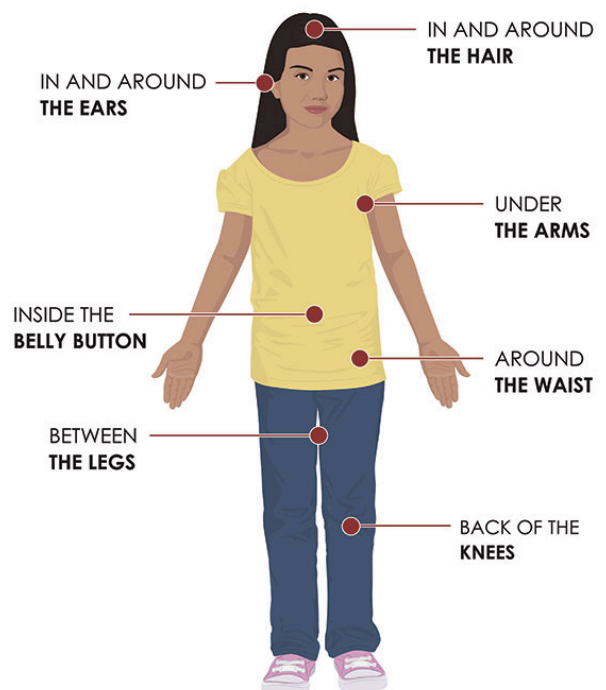
Lyme Disease is an infectious disease caused by the bacterium *Borrelia burgdorferi*, spread by ticks of the genus *Ixodes*. In order for a human to be infected, the tick must be attached for approximately 36 to 48 hours. Therefore, it's important to be vigilant in checking yourself for ticks immediately after going out into the field.



Lyme Disease produces a broad range of symptoms, and no one patient is the same. The incubation period from infection is usually one to two weeks, but can vary from days to months to years. Early signs (typically 3 to 30 days after tick bite) include fever, chills, headache, fatigue, aches, swollen lymph nodes, and Erythema Migrans (EM) rash ("bull's-eye rash"). Later symptoms (days to months after bite) include severe headaches and neck stiffness, additional EM rashes, arthritis (particularly knees), facial palsy, heart palpitations, episodes of dizziness or shortness of breath, nerve pain, short-term memory problems.

**If you are experiencing any signs or symptoms following a tick bite, visit your healthcare practitioner immediately!**

Prevention of Lyme starts with the prevention of tick bites. Be sure to wear clothing that covers your arms and legs; insect repellent is also generally effective in preventing tick bites. If you do find a tick on yourself, they can be removed with tweezers. More detailed information on removing a tick safely can be found within the tick-collection kit.



For more information on Lyme Disease, see the CDC website: [https://www.cdc.gov/lyme/signs\\_symptoms/index.html](https://www.cdc.gov/lyme/signs_symptoms/index.html).