

Lessons Learned from 1,600+ Ticks

DEREK KNOWLES

**THANKS TO MARTA CORTINOVIS,
BROOKE FABRICANT,
AND LARISA FONG (500+)**

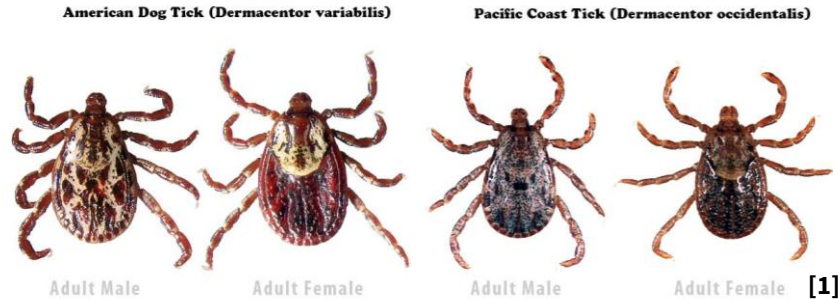
Tick Species at the Preserve

Pacific Coast (*Dermacentor occidentalis*),
American Dog Tick (*Dermacentor
variabilis*)

- Rocky Mountain Spotted Fever (11%)

Western blacklegged (*Ixodes pacificus*)

- Lyme Disease (<5%)



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Female



Male

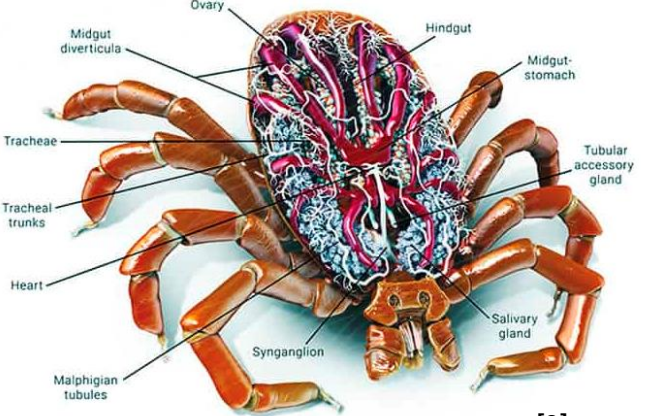
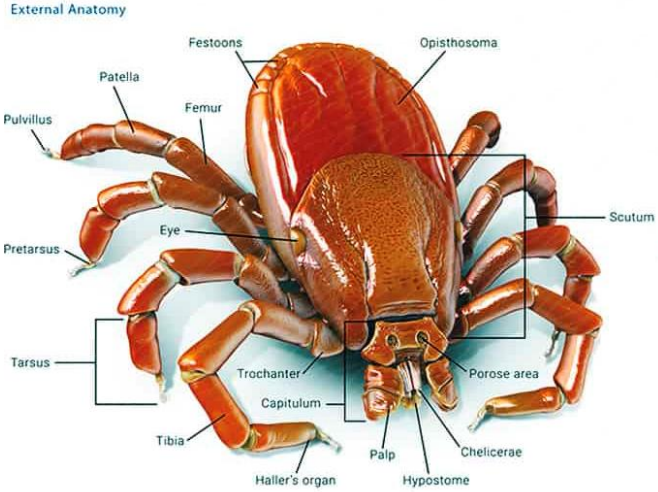


Female



Male

Anatomy of a Tick



[2]

Where Do Ticks Hide?

Often on the ends of vegetation leaning into the trail



Tick Types Found while Cycling Trails

All Trails : 361 Ticks



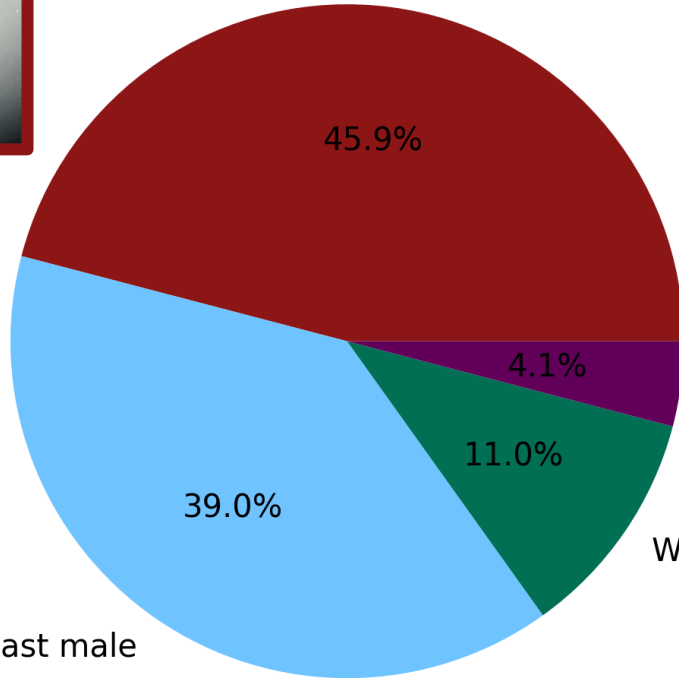
Pacific Coast female



Western Blacklegged male



Pacific Coast male

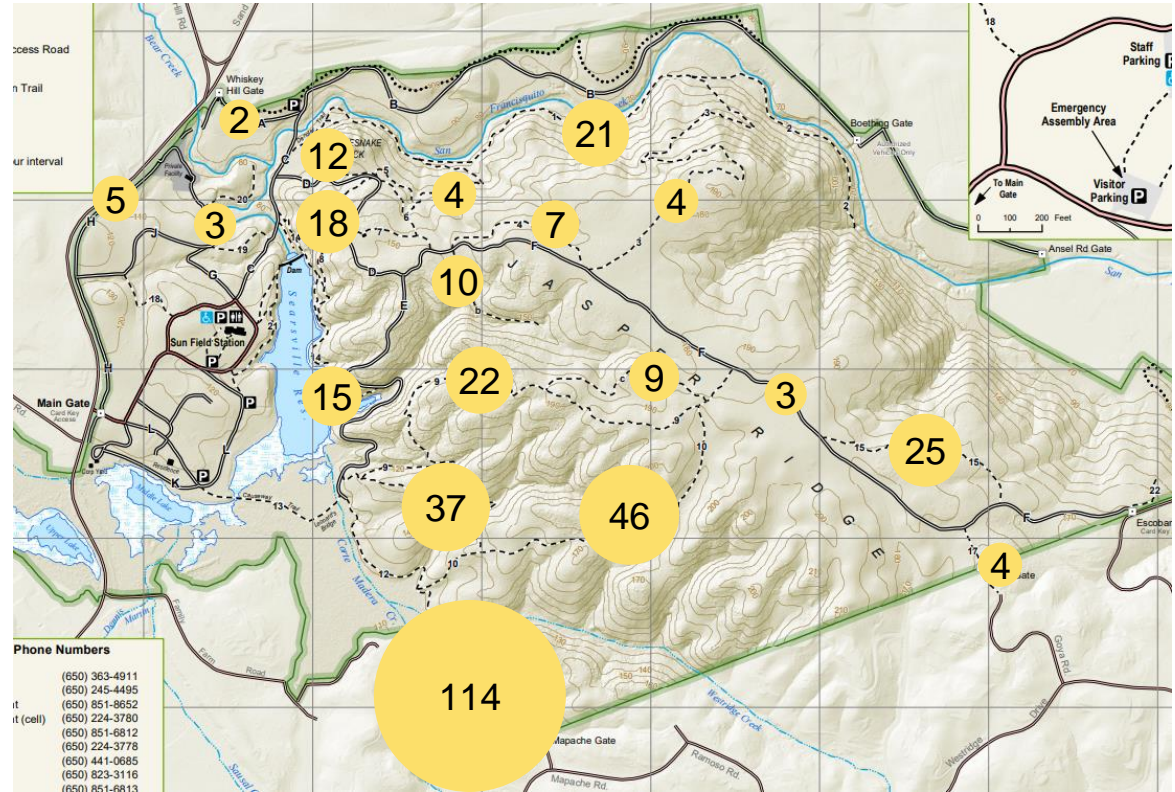


Western Blacklegged female



What Trails are Tick Hotspots?

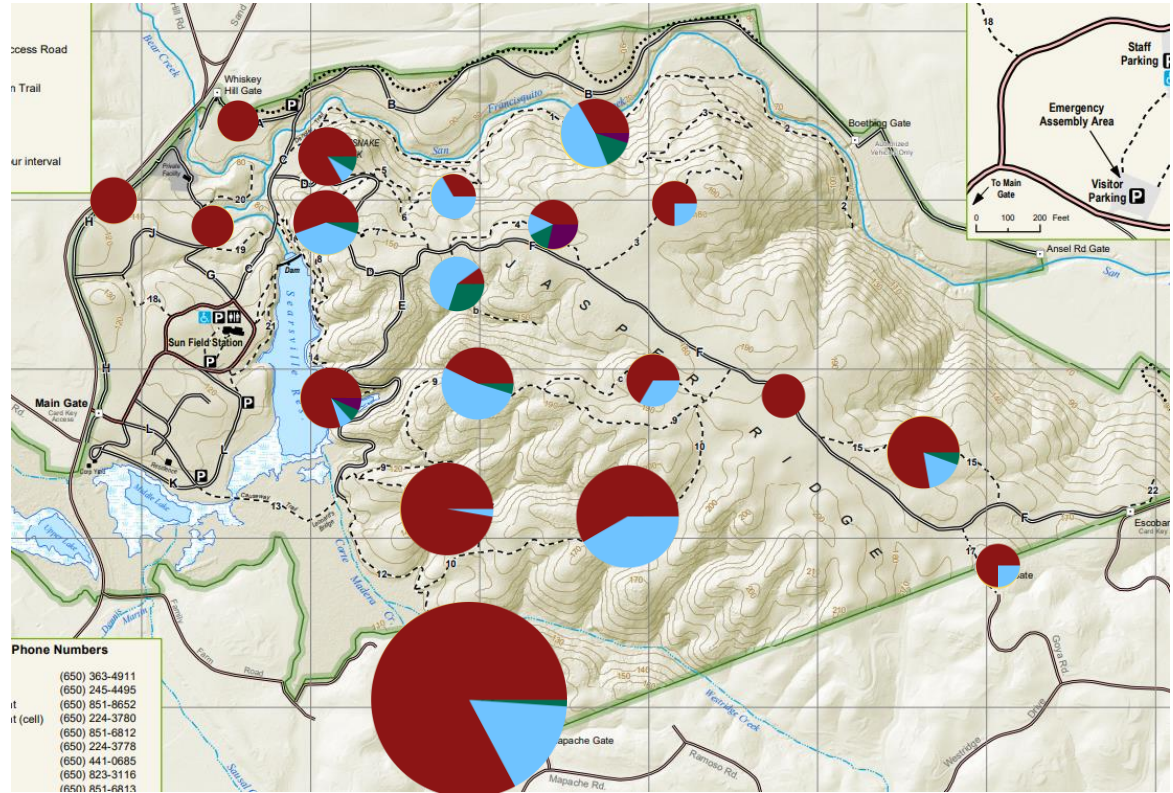
Trail	# of ticks
12	114
10	46
11	37
15	25
9	22
1	21
8	18
14	15
a	12
b	10
c	9



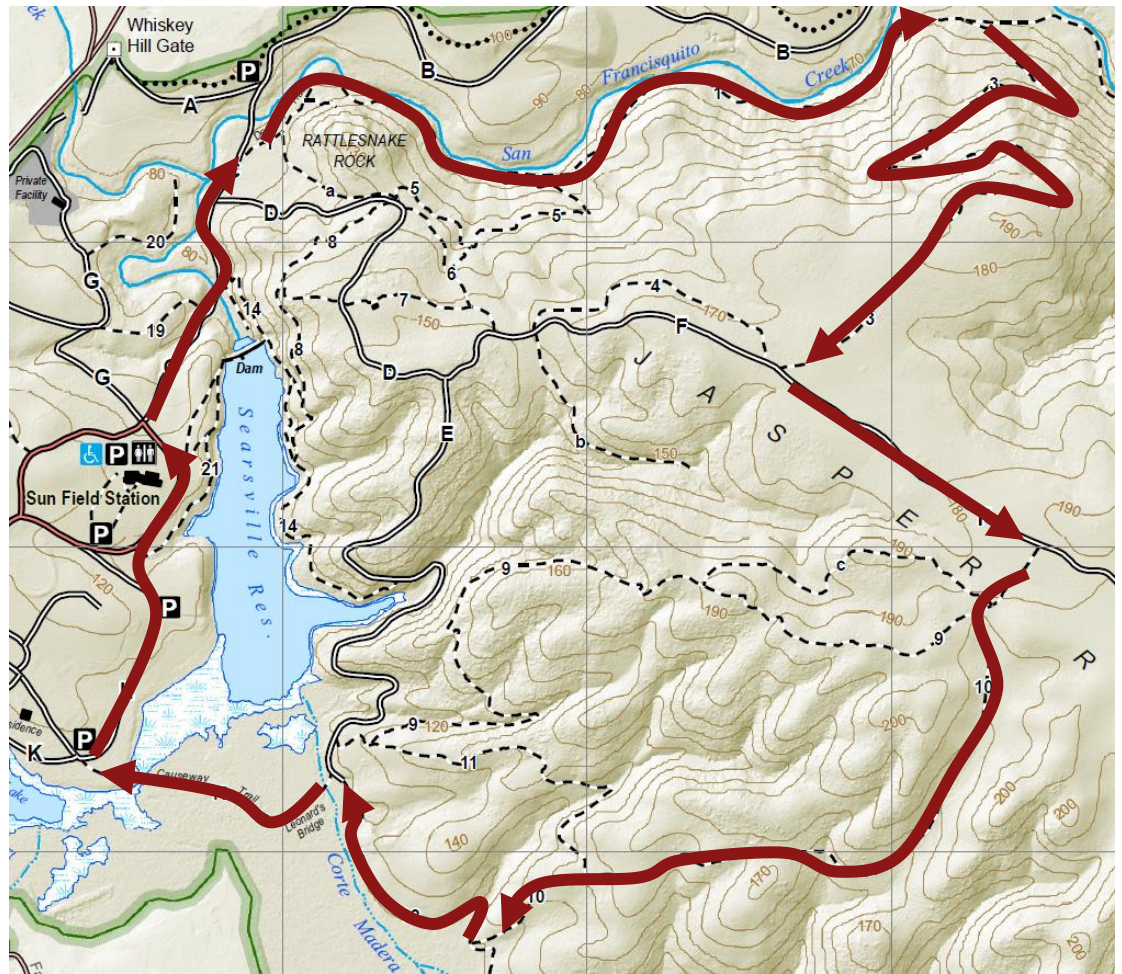
What Trails are Tick Hotspots?



- Pacific Coast Female
- Pacific Coast Male
- Western Blacklegged Female
- Western Blacklegged Male



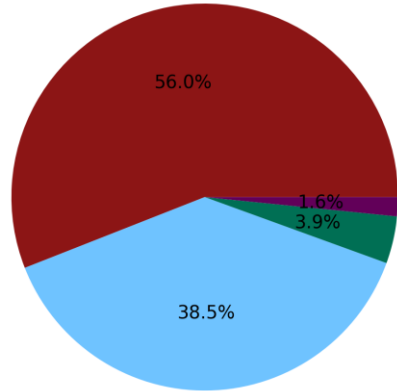
Walking Survey



Walking Survey

All Trails : 1065 Ticks

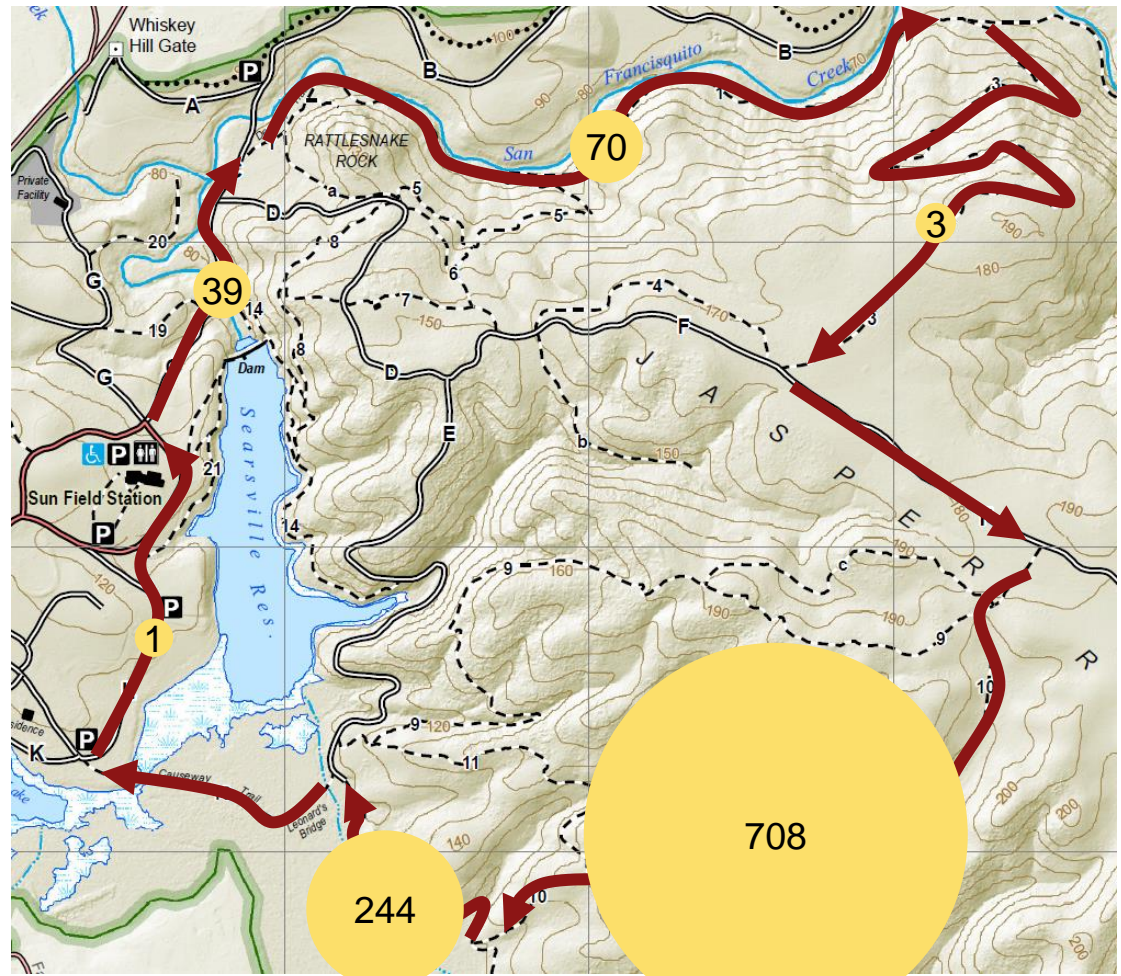
pacific_coast_female



western_blacklegged_male

western_blacklegged_female

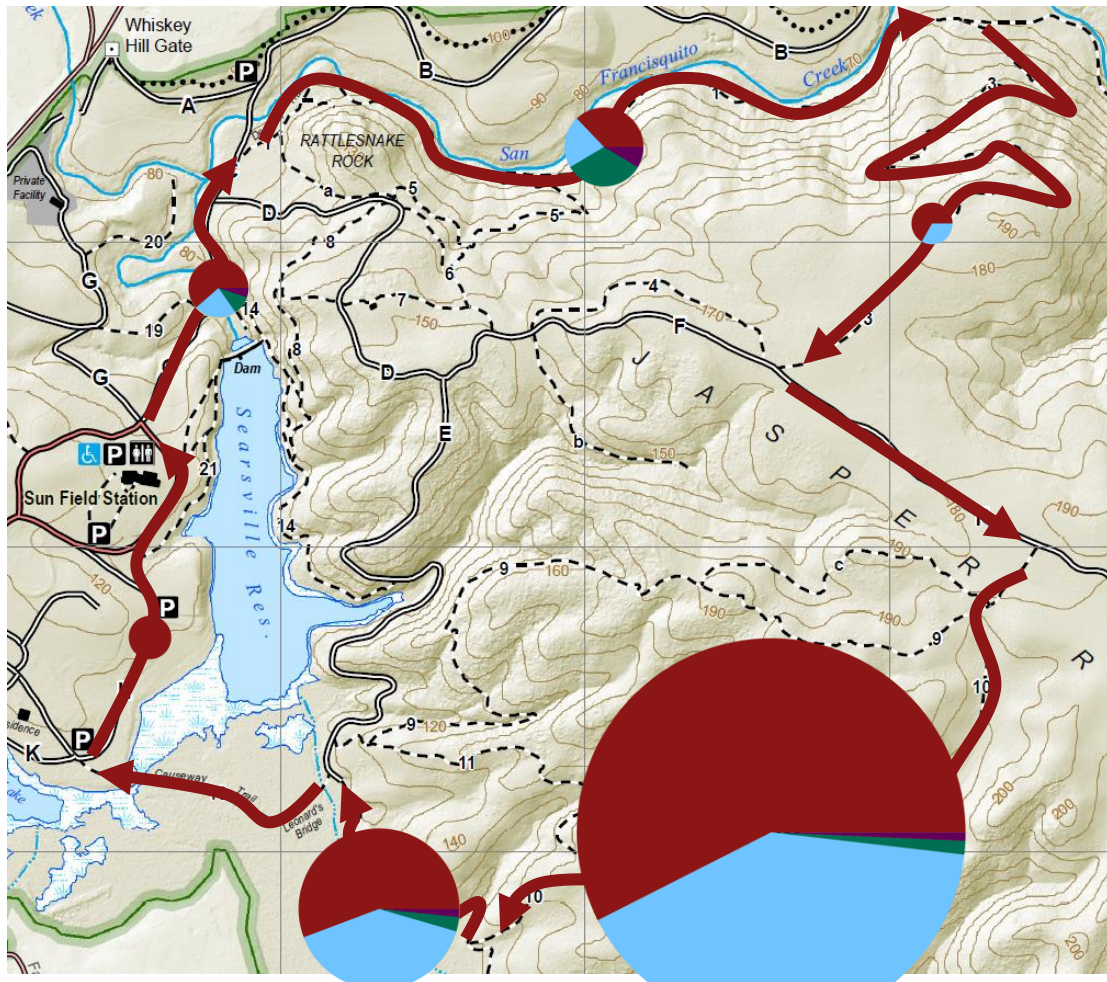
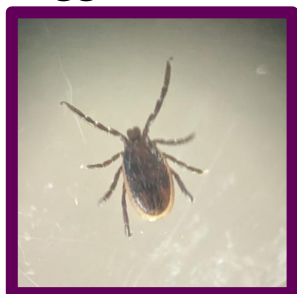
pacifc_coast_male



Walking Survey



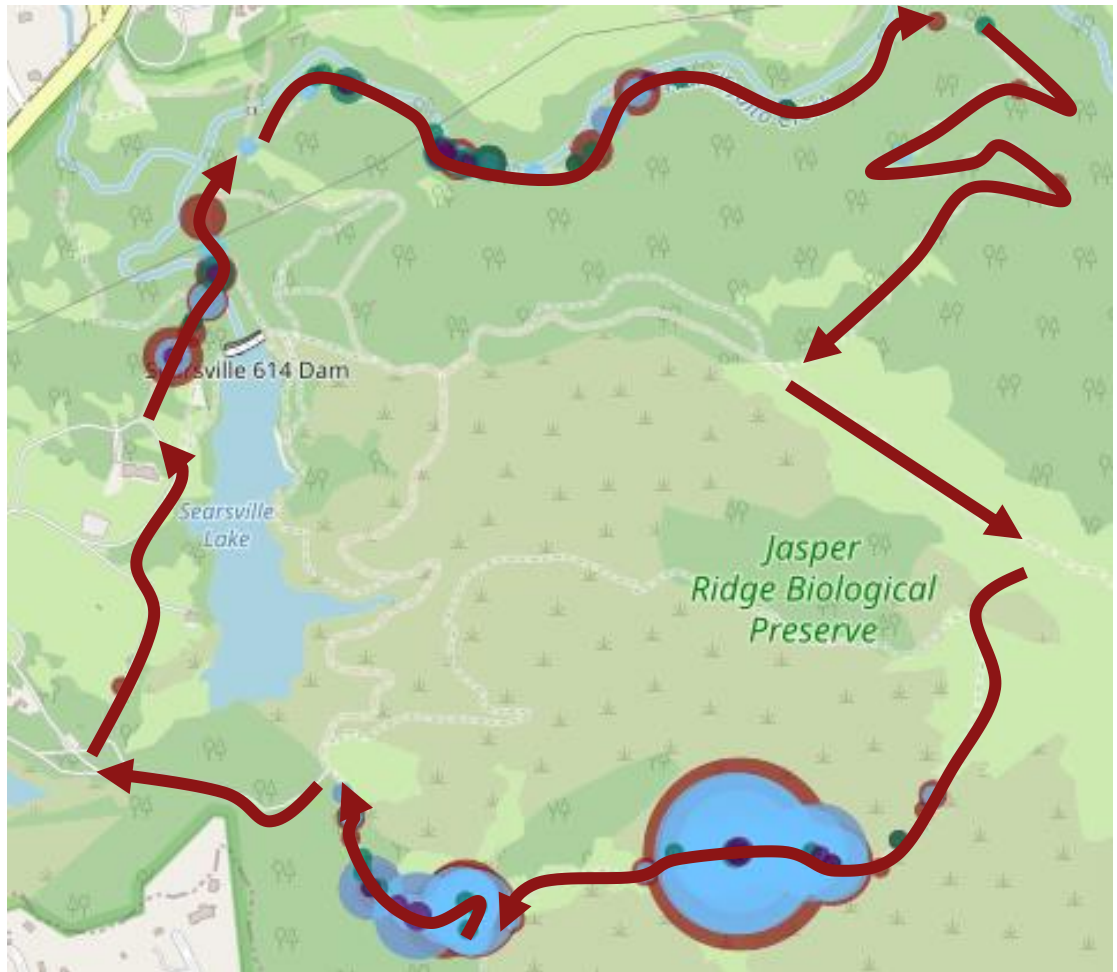
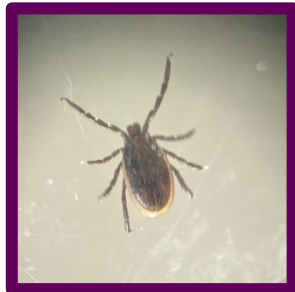
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Walking Survey



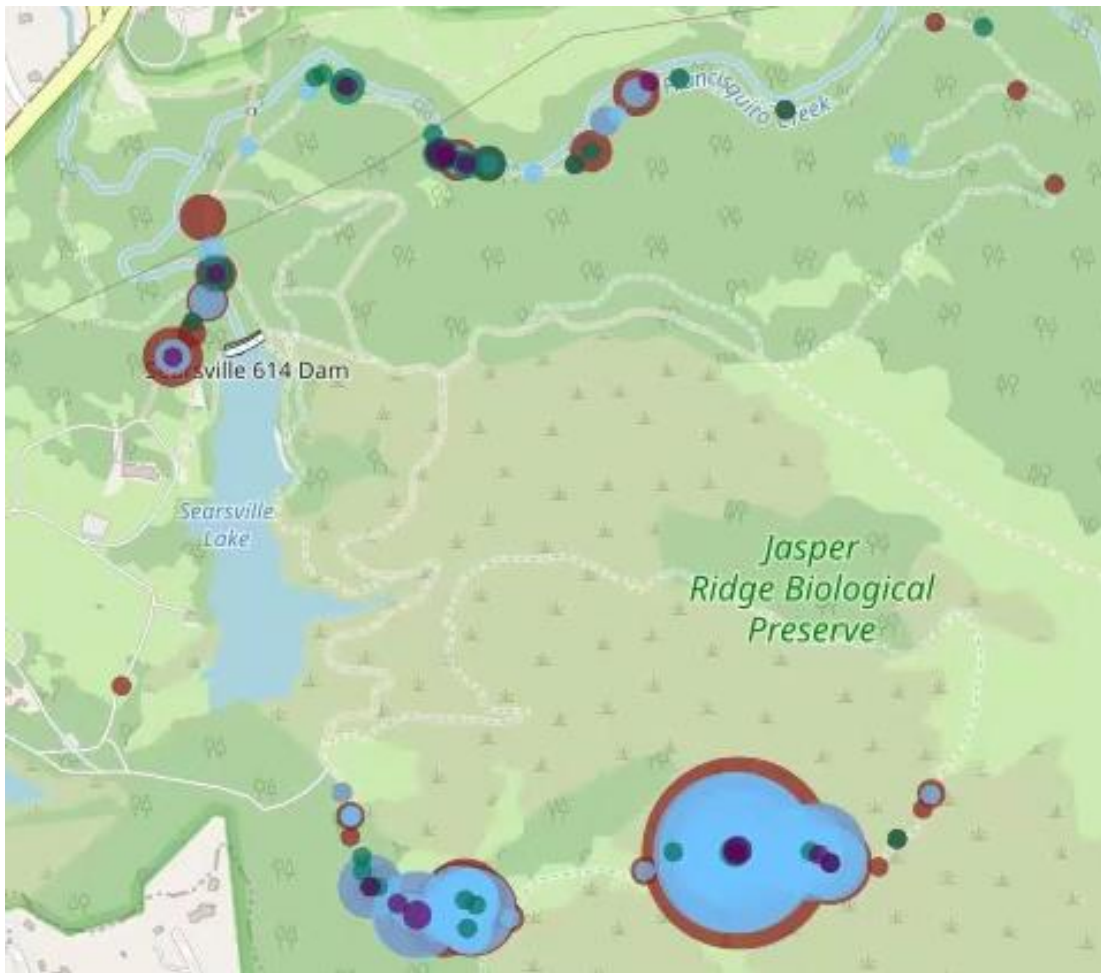
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Walking Survey

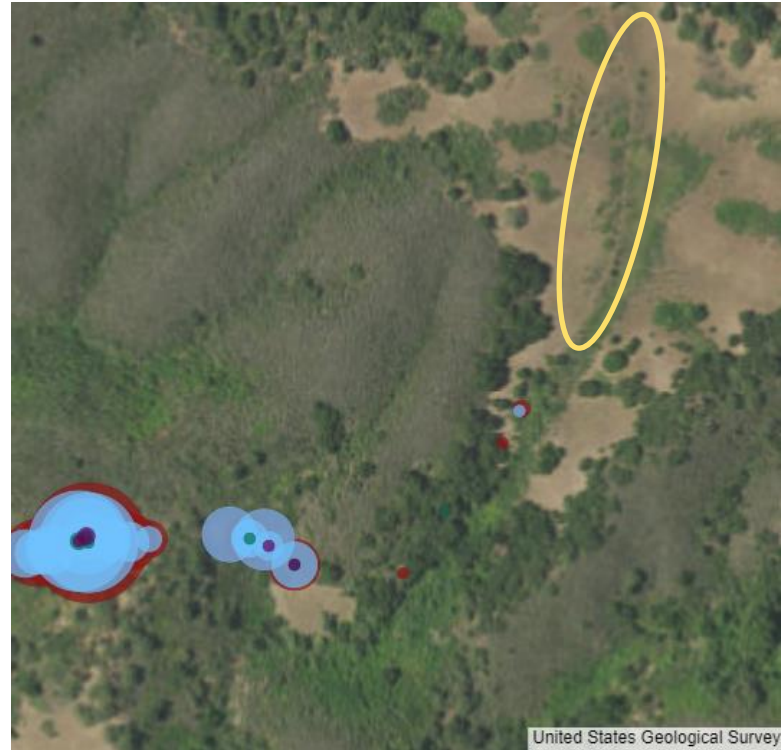


- Pacific Coast Female
- Pacific Coast Male
- Western Blacklegged Female
- Western Blacklegged Male



Ticks Seem to Prefer Shade

Preference for shade and avoidance of open grasslands.



Fabric Study

No clear preference.
Either attached to the
first/second or never.



Cycling Style Study



Habitat for Many!



More Questions than Answers

- Height at which ticks quest?
- Factors that affect questing?
Humidity, temperature, clouds, weather patterns?
- Plants that ticks quest on? Plants affect predation? Camouflage?
- Tick prevalence before/after fire reduction from sheep/goats?



Ticks



Not Ticks

Tick Safety Measures

- Don't go outside
- Don't touch vegetation

Tick Safety Measures

- ~~• Don't go outside~~
- ~~• Don't touch vegetation~~
- Wear long pants/sleeves and tuck in where possible
- Check for ticks after touching vegetation
- Ziploc clothes at home
- Ticks are killed with dry heat or soaked in alcohol for a while

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