

# Cañada De Los Osos Ecological Reserve Pond Surveys

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# Native Species

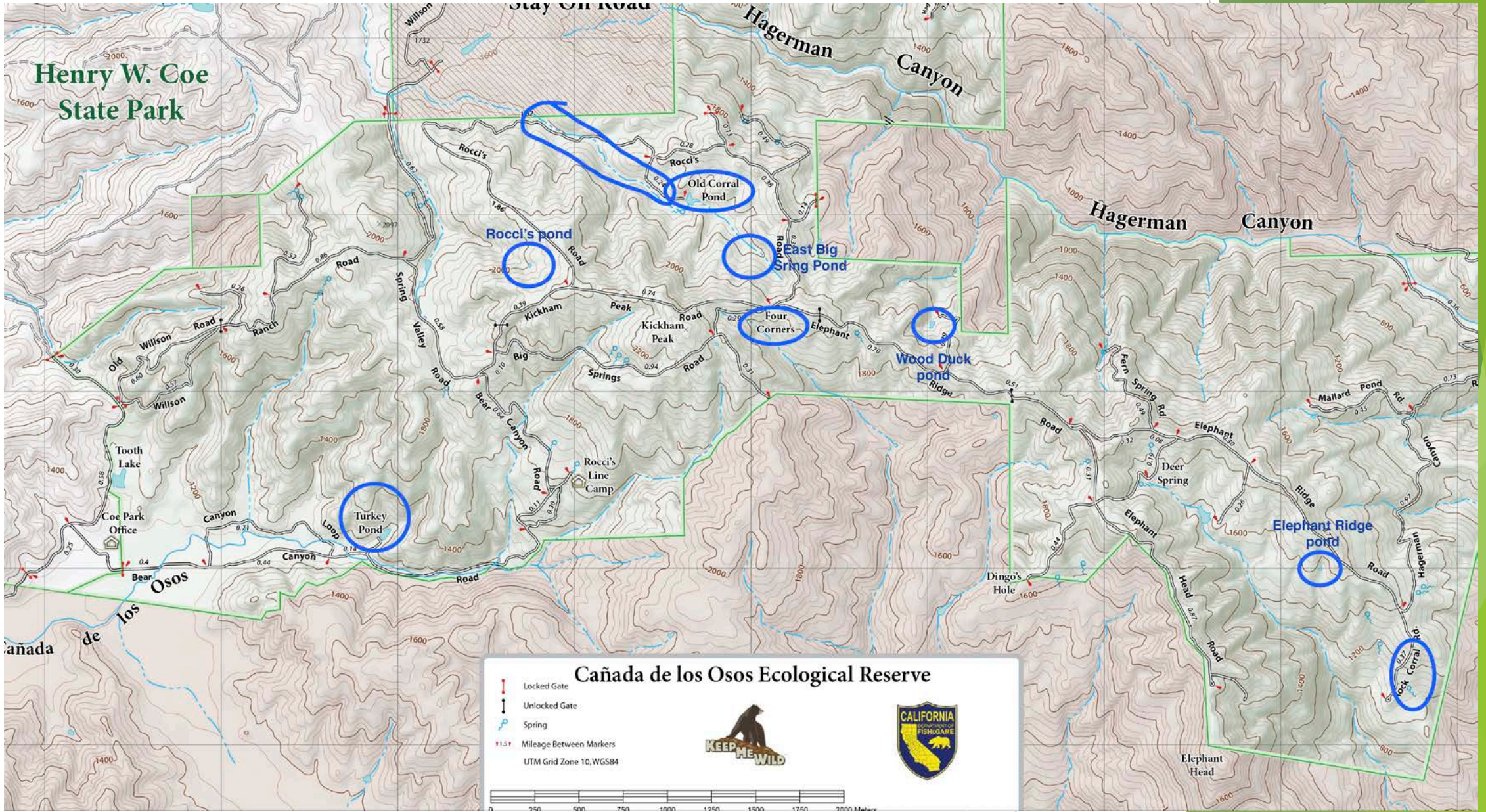
- ▶ Pacific Tree frogs (*Pseudacris regilla*)
- ▶ California Newts (*Taricha torosa*)

## Threatened & Endangered Species

- ▶ Red-Legged Frogs (*Rana draytonii*)
- ▶ California Tiger Salamanders (*Ambystoma californiense*)
- ▶ Western Pond Turtles (*Emys Marmorata*)

# Hypothesis

- ▶ Tiger Salamanders and Red Legged Frogs are likely to be found within ponds which in previous years have contained them.
- ▶ Trapping of Western pond turtles in Old Corral pond will capture, in addition to previously captured and tagged turtles, new young turtles as well as previously uncaptured turtles.



# Methods and Materials



- ▶ Seining the ponds
- ▶ 6 ponds Surveyed on the first day (Old Coral Pond, East Big Spring, Four Corners, Wood Duck, Rock Coral, Elephant Ridge)
- ▶ 3 ponds surveyed on second day (Old Coral, Rocci's, Turkey)

# Methods and Materials

- ▶ Five days of turtle trapping
- ▶ Old Coral Pond and Stream flowing from the pond
- ▶ Traps baited with Sardines



# Identifying and Marking Turtles



- ▶ Injected with a pit tag
- ▶ Shell Notches indicate numbering
- ▶ Measuring to determine growth between years



# Results

- ▶ After 2 days of sampling ponds red legged frog larva were not found in any of the ponds.
- ▶ Two adult Red-legged frog were found and seen but only 1 captured (Wood Duck, Four Corners)
- ▶ Four possible red-legged frogs at Old Corral Pond
- ▶ Tiger salamander larva/metamorphs were found in two ponds (Four Corners, Rocci's)



## California Red-Legged Frogs

	Red-Legged Frog	
	2016	2017
Rock Corral	2A	
Elephant Ridge		
Wood Duck	X 3A	1A
Four Corners	1 yr	1A
East Big Spring	1A	
Old Corral		X
Rocci's	1A	



Tiger Salamnder		
	2016	2017
Rock Corral		
Elephant Ridge		
Wood Duck		
Four Corners	X	X
East Big Spring	X	
Old Corral	X	
Rocci's	X	X



California Tiger Salamander

Tree Frogs		
	2016	2017
Rock Corral	X	X
Elephant Ridge		X
Wood Duck	X	X
Four Corners	X	X
East Big Spring	X	X
Old Corral	X	X
Rocci's	X	X

Newts		
	2016	2017
Rock Corral		X
Elephant Ridge		X
Wood Duck	X	X
Four Corners	X	X
East Big Spring	X	X
Old Corral	X	X
Rocci's	X	X

- ▶ Newt larva and Tree frog larva were found in all ponds with the exception on Turkey Pond, due to the presence of fish

# Western Pond Turtles

- ▶ 35 total Western Pond Turtles this Year
- ▶ 68 total Western Pond Turtles in the three year study



			Day 1	Day 2	Day 3	Day 4	Day 5
Pond	Recaptured	Male	11	5	5	6	6
		Female	2				2
	New	Male	5	3		2	
		Female					2
Stream	Recaptured	Male			3	1	1
		Female					
	New	Male		4	1	3	
		Female				1	1

# Variety of Organisms Observed

- ▶ Tree Frog tadpoles
- ▶ Adult Tree Frogs
- ▶ Newt Larvae
- ▶ Ostracods
- ▶ Damselfly larvae
- ▶ Water Scorpions
- ▶ Bluegill fish
- ▶ Garter Snakes

# Tiger Salamanders

- ▶ The newly deepened ponds within the last few years have allowed for delayed metamorphosis of tiger salamanders.
- ▶ Deeper ponds due to wetter year and longer rains, make it harder to seine for tiger salamander larvae.
- ▶ The absence of tiger salamander larvae in East Big Spring pond is contrary to what would be expected based on the abundance from last year.



# Red-legged frogs

- ▶ Observations of only adult red-legged frogs may indicate strong predation by other species such as tiger salamander larvae.
- ▶ The lack of abundant reproduction during a wetter year was unexpected
- ▶ Reproduction may be low in the years that have followed the drought



# Western Pond Turtles

- ▶ Turtles seem to grow large within the Old Corral Pond
- ▶ Turtles grow much more slowly in the stream due to shorter wet season
- ▶ Turtles seem to be moving along the stream from Old Corral pond
- ▶ Pond turtle population within Old Corral Pond is steady and growing





Questions?