What is the Impact of the Red eared slider population on the Native western pond turtle?

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Abstract

Invasive species are becoming a growing problem in California. They are competing for space and sustenance with native species. Red-eared Slider turtles are an invasive species that have started to inhabit more lakes and rivers throughout the San Francisco Bay Area, which might displace native species like the Western Pond Turtle. A major reason for this is people keep Red-eared Sliders as pets and release them into the wild when they grow too big. We visited three different locations: Turtle Pond on the SSU campus, Mountain Lake in San Francisco, and Roberts Lake in Rohnert Park, and compared the number of Red-eared slider turtles to the number of Western Pond turtles at those sites. We used the data we gathered to determine whether Red-eared sliders pose a threat to the Western Pond Turtle in these lakes and ponds.

Research methods

To determine the impact that red-eared slider turtles have on aquatic ecosystems, we began by visiting our three locations on two separate occasions. A problem we ran into was the fact that temperature/weather would affect how many turtles would be visible. By recording data twice at each site (at different times with different weather conditions) and taking the average of both measurements, we accounted for the change in how many turtles would be visible on any given day. At each of these locations we recorded how many western pond turtles and red-eared slider turtles we saw. The experiment we conducted spanned one month and 18 days started on March 13, 2018 and ended on April 30, 2018.

Study system

Red eared slider

Western pond turtle

Studying turtles at turtle pond

Turtle pond at Sonoma state University

It should also be noted in our study that a couple of years ago there was an effort made to reintroduce the western pond turtle to Mountain Lake, which accounts for the abundance we observed.

Acknowledgements

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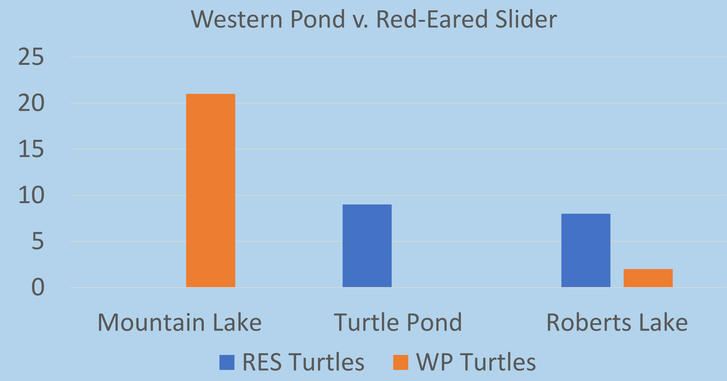
Results

When we visited each location, we noticed that one turtle species completely dominated the other species in population numbers or the other species was completely absent in the location. We tried to visit each site twice but only had enough time to visit mountain lake once, so we averaged out the number of turtles at each site we visited twice.



Discussion

We looked at our results at each site, and we noticed that mostly red eared slider turtles dominated over any native species if they were present, so we did some research, and we discovered that red eared sliders can breed faster than any native species, and they can also lay huge clutches of eggs at a time (Somma, Foster, & Fuller, 2018). The most notable species that they outcompete in these areas is the Western Pond turtle, a species native to California that is close to becoming endangered. The red eared slider is native to northern Mexico and parts of the south, and they made their way to California through the pet trade until people started releasing them into ponds, where they started breeding and populating, crowding out other species (“California’s Invaders”, 2018).

Conclusions

From our findings we can conclude that the Red eared slider turtle in Bay Area may negatively impact native turtle species such as the western pond turtle, crowding them out with their population numbers and competing for food, territory, and breeding grounds. From our studies we noticed that if the red eared slider and the western pond turtles happened to reside in the same location that the red eared slider would always be more abundant, thus leading us to believe they could be negatively impacting the western pond turtle.

References

California's Invaders: Red-Eared Slider. (n.d.). Retrieved April 04, 2018, from https://www.wildlife.ca.gov/Conservation/Invasives/Species/Redeared-SliderSome

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