

Turtle Community Patterns in a Large Urban Wetland Complex

MWPARC travel grant recipient: Katherine (Katie) Brandewie, Purdue Fort Wayne University
Mentor: Dr. Mark A. Jordan, PFW Department of Biology

Report of Research Summer 2021
July 9, 2021

The field site in Fort Wayne, Indiana, is a large wetland complex surrounded by urban infrastructure. I surveyed turtles as the primary field researcher in both 2020 and 2021 to add data to an ongoing project involving turtle populations at this field site. I collected data during two weeks of trapping in May, with a focus on painted turtles (*Chrysemys picta*) and snapping turtles (*Chelydra serpentina*). A third species, spiny softshell turtles (*Apalone spinifera*), was also captured during this survey, but only painted turtles and snapping turtles were marked. Each new captured turtle was marked with unique carapace notches. 119 total captures (Table 1) were made (97 painted turtles, 19 snapping turtles, and 3 spiny softshell turtles) during the 2-week trapping period. A total of 20 turtles were recaptures from previous sampling years (17 painted turtles and 3 snapping turtles).

The mark-recapture data collected during the 2021 trapping season will add to the pre-existing data from 2018, 2019 and 2020. This project aims to better understand the distribution and abundance of resident turtle species. The data will be used to estimate the population sizes of the two most common species of turtles at this field site, snapping turtles and painted turtles. The trapping data from sites of differing habitat types will also be useful in determining potential habitat preference for each species, along with possible effects of urbanization or road proximity on the populations. Findings from this project can be used to help inform conservation practices on the property and contribute to broader knowledge of urban freshwater turtle populations.

2021		Number of recaptures
Total turtles	119	20
Total Painted Turtles	97	17
Total Snapping Turtles	19	3
Spiny Softshell Turtles	3	-

Table 1: Total number of turtle captures and recaptures per species during 2021 trapping.

Photo Gallery



Primary field researcher, Katie Brandewie, posing with adult snapping turtle before release.



One of the eight 2021 trapping sites.



Juvenile snapping turtle



Adult painted turtle shortly after release.

This turtle survey would not have been possible without my awesome and incredibly dedicated volunteers! Not all volunteers are pictured, but I am grateful for all who contributed and the hours they spent with me in the field. All pictured volunteers gave their permission to be featured here.



Committed volunteers wading to help check turtle traps on a rainy and unseasonably cold day.



Volunteers working to help safely remove multiple snapping turtles from a hoop net.



Three volunteers posing with processed painted turtles about to be released.



Volunteer reading water depths while helping set turtle traps.