

Citizen-based Herptile Monitoring Program in Historic Riverside Park, Milwaukee

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Abstract

We established a long-term citizen-based monitoring program for snakes and turtles in urban Riverside Park (Milwaukee) and the surrounding areas. We designed and implemented snake mark/recapture surveys using plywood cover boards, and turtle visual and trapping surveys. Volunteers were coordinated through the Urban Ecology Center, and the project will progress the Wisconsin Strategy for Wildlife Species of Greatest Conservation Need by, a) adding coverage to amphibian and reptile monitoring programs in the state, b) providing a new volunteer program for monitoring snakes and turtles, c) further standardizing survey protocols, d) providing training in field identification and survey methods, and e) increasing efforts to involve the public, K-12 schools, and colleges in collecting inventory and monitoring data.



Study Area

The study area extends 1.8 miles along the Milwaukee River corridor from Capitol Drive to the North Ave. Pedestrian Bridge (Milwaukee County), and includes the riparian floodplains and upland grasslands along the river.



Preliminary Results

Analyses of results are in preliminary stages, but to date 4 species of turtles and 3 species of snakes have been documented:

- Painted turtle (*Chrysemys picta*)
- Common snapping turtle (*Chelydra serpentina*)
- Eastern spiny softshell turtle (*Apalone spinifera*)
- Common map turtle (*Graptemys geographica*)
- Butler's gartersnake (*Thamnophis butleri*)
- Common gartersnake (*Thamnophis sirtalis*)
- Brown snake (*Storeria dekayi*)



Turtle trapping in 2008 produced 5 spiny softshells, 4 snapping turtles, and 1 painted turtle. Snake surveys have marked over 700 Butler's gartersnakes and over 200 have been recaptured at least once.

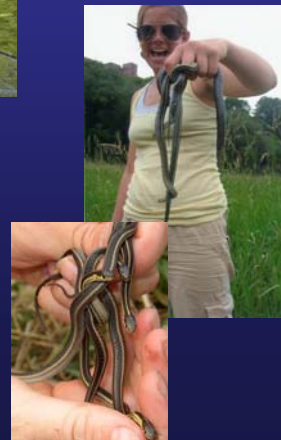
Volunteers and application of data

The project has involved over 55 volunteer assistants and 9 student interns and been showcased to many school groups and members of the Ecological Society of America. Participants are engaged in discussions over the importance of urban wildlife management. Data are being utilized by the Wisconsin Herp Atlas, Milwaukee County Parks, riparian landowners, the Milwaukee River Working Group, the Urban Ecology Center's management plan for Riverside Park, and the DNR conservation plan for the Butler's gartersnake.



Methods

Turtle monitoring began in 2008 after casual observations established the presence of several species in the aquatic river habitat. Visual surveys (hiking, canoeing) record basking turtles, while baited traps are utilized to mark and recapture individual turtles. For snakes, prior studies had investigated cover object preferences and sampling protocols, and established the presence of the Butler's gartersnake (*Thamnophis butleri*), a Wisconsin Threatened Species. We designed a mark-recapture study using plywood cover objects in four hollow grid (east bank) and two web array (west bank) designs. Snakes are marked by ventral scale clips, and turtles by shell notches. All animals are examined, sexed, weighed, and measured to assess age classes, sex ratios, reproductive status, and general health. Volunteers are trained annually and supervised by project investigators.



Acknowledgements

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