

GRADUATE EXIT SEMINAR

EVAN AMBER

Evaluating AHDriFT Camera Traps and Traditional Survey Methods for Eastern Massasauga Rattlesnake (*Sistrurus catenatus*) Presence-Absence



The Eastern Massasauga Rattlesnake (*Sistrurus catenatus*) is Federally threatened and Ohio endangered. Accepted Ohio survey protocols include visual encounter surveys (VES) and artificial cover (corrugated tin sheets) surveys. Although effective, these traditional methods require intensive field effort (~25 weekly visits). The Adapted-Hunt Drift Fence Technique (AHDriFT) is a new low-effort camera trap and drift method for ectotherms and small mammals. However, the method has not been applied for Massasauga or in their habitats. I deployed 15 Y-shaped AHDriFT arrays from March to October 2019 and 2020 in northern Ohio wet meadow fields known to host Massasauga and with at least three years of traditional survey data. The objectives of this study were to: (1) compare AHDriFT efficacy for Massasauga presence-absence surveys to VES and tin surveys in terms of detection rates, detection probability, and cost-efficiency; (2) determine optimal AHDriFT deployment for Massasauga in terms of camera trap timing and length, array spatial placement, and weather influence; and (3) provide preliminary recommendations for a Massasauga survey protocol using AHDriFT.

Advisor: Dr. William Peterman

THURSDAY, MARCH 25, 2021
11:00 A.M.

Join the seminar via Zoom:

<https://osu.zoom.us/j/99856917458?pwd=RW1EbGRYWdIvNTBwWW1acVd1d3JndzO9>

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