

GRADUATE EXIT SEMINAR

ANDREW HOFFMAN

Managing forests and understanding social intolerance for Ohio's declining timber rattlesnakes



Reptiles and amphibians are in global decline, but these declines are regionally and taxonomically disproportionate. The timber rattlesnake (*Crotalus horridus*) is broadly distributed, but has declined dramatically, especially at the periphery of its range in states like Ohio. Most remaining Ohio populations are found on public lands subject to timber harvest and prescribed fire. We monitored timber rattlesnakes using VHF radiotelemetry and measured their habitat use and behavior in the context of disturbance-mediated changes to forest structure from past silviculture treatments and to better understand spring and fall phenology and potential risk of exposure to prescribed fire. We also surveyed Ohio residents to measure their tolerance for rattlesnakes in Ohio. Timber rattlesnakes at our study site exhibited broad habitat preferences that were mediated by behavior and condition and their activity had relatively little overlap with current prescribed fire seasons in Ohio. We concluded that current prescribed fire practices pose a relatively low risk to timber rattlesnakes and that long-term landscape changes associated with silvaculture are not detrimental to timber rattlesnake populations. However, negative public attitudes toward rattlesnakes may present a serious barrier to the long-term stability and recovery of rattlesnake populations in Ohio.

Advisor: Dr. William Peterman

**TUESDAY, APRIL 6, 2021
9:00 A.M.****Join the seminar via Zoom:**<https://osu.zoom.us/j/93925075681?pwd=TXNldXZiVmFKeDICS216UmFKTUd3QT09>**senr.osu.edu****THE OHIO STATE UNIVERSITY**COLLEGE OF FOOD, AGRICULTURAL,
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