CFAES

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES

MASTER THESIS DEFENSE

JEREMY BLOCK

Ecological effects and control of woody invasive species in an eastern oak-hickory forest

Native tree regeneration in Eastern oak-hickory forests is threatened by multiple factors including the increasing abundance of invasive species and “mesophication” - the transition from shade intolerant to shade tolerant species. Key abiotic and biotic filters (e.g., invasive species cover, canopy community composition, and landscape position) were studied to examine controls on seedling and sapling abundance and species composition. Increased invasive species cover had significant effects on the regeneration and recruitment of tree seedlings, resulting in increased maple and beech seedlings and reduced oak and hickory seedlings. Mechanical clearing, and high and low intensity goat grazing were compared as tools to control invasive species and improve tree regeneration and recruitment. Both goat grazing and mechanical clearing reduced invasive abundance to some extent, but mechanical clearing was more cost effective, more selective, and had significantly greater impact on larger plants.

Advisors: Dr. G. Matt Davis and Dr. Benjamin Wenner

WEDNESDAY, JULY 14, 2021
10:30 A.M.

Join the seminar via Zoom:
https://osu.zoom.us/j/7799674186?pwd=S0RzMHIrMUFtcmxzZ3dnd292cUZvUT09