CFAES

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES

GRADUATE EXIT SEMINAR

STEPHANIE SFORZA

Spatial Analyses of Northern Bobwhite Occupancy and White-tailed Deer Hunter Distribution and Success in Ohio

Geospatial techniques can be used to extract fine-scale spatial data and examine large-scale trends for the purpose of informing practical wildlife planning and management. The overall goal of this thesis is to apply geospatial data and analyses to investigate two systems: conservation of early succession-dependent wildlife (e.g. Northern Bobwhite) and harvest management of White-tailed deer in Ohio.

Northern Bobwhite (*Colinus virginianus*) populations in Ohio have been declining for decades as a result of habitat loss and degradation caused by successional processes and changes in land use. Landscapes formed by juxtaposition and interspersion of early successional, agricultural and forested vegetation are important to fulfill bobwhite resource requirements throughout all life stages. The approach of this project is to apply land cover configuration and composition data to resource selection functions with the goal of predicting probability of bobwhite use throughout their current range in Ohio. This project also compares final model accuracy to one of similar goals yet differing methods to investigate the potential tradeoff between high effort data collection and model correctness.

Management of White-tailed deer (*Odocoileus virginianus*) is an essential task for many wildlife management agencies due to their economic, recreational and social importance. Harvest management is a key tool for capturing the benefits and mitigating some detrimental social and ecological impacts of increasingly abundant white-tailed deer populations in Ohio and other midwestern states. This project evaluates factors influencing deer hunter distribution and probability of success within Ohio deer management units with the goal of providing important information for harvest managers at a regional scale.

Advisor: Dr. Robert Gates

WEDNESDAY, DECEMBER 22, 2021
1:30 P.M.

Join the seminar via Zoom:
https://osu.zoom.us/j/98430627756?pwd=c3N2OTICTTBoMnFVd3orcVcreUxYUT09

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