RESEARCH AND EXTERNAL GRANTS

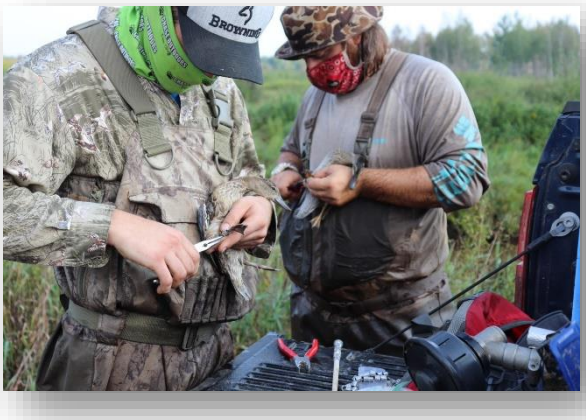
Upper Mississippi River Great Lakes Joint Venture Wood Duck Project

2-year grant total: $89,324.40

Title: Breeding Ecology, Mortality Dynamics and Migration Chronology of Wood Ducks in the Upper Mississippi River and Great Lakes Region

Our goal is to inform wood duck conservation and management in the Upper Mississippi River and Great Lakes Region by improving our understanding of breeding and migration ecology and factors affecting the survival process. The objectives of this project are to:

- Use seasonal capture-mark-reencounter (CMR) data to estimate seasonal demographic rates and sex class across multiple spatial scales (individual states [MN, WI, MI], to Bird Conservation Regions, to the UMRGLR-JV region).
- Examine environmental and anthropogenic factors affecting the wood duck mortality process.
- Estimate wood ducks breeding propensity and renesting propensity from geolocators and relationships with associated environmental covariates.
- Estimate wood duck nest success from light-level geolocation data and relationships with associated environmental covariates.
- Use band recovery data, light-level geolocation data, and eBird data to examine fall and spring migration chronology and associated covariates and winter habitat distribution of wood ducks that breed in the UMRGLR.
- Build an initial conceptual demographic model applicable to wood duck populations in WI, BCR 23, and/or the JV Region (BCRs 12, 23, and 22 combined) based on study findings, vital rates gleaned from the literature (where applicable), and assumptions when necessary. Identify and prioritize model information gaps and relevant future research needed in the JV region.



Collaborators: Wisconsin Department of Natural Resources and U.S. Fish and Wildlife Service – Necedah National Wildlife Refuge