# Office of Applied Science

# Ring-necked duck population dynamics and habitat associations

The goal of this study is to gather additional information on the habitat associations, spatial breeding distribution and population dynamics of ring-necked ducks to aid in population, habitat and harvest management.

#### **TIMELINE**

Launch: April, 2019 Funded Through: July, 2022

#### **FUNDING**

Pitman-Robertson Wildlife Restoration Program

## **DNR PARTNER BUREAU**

Wildlife Management

#### **EXTERNAL STAKEHOLDERS**

Upper Mississippi and Great Lakes Region Joint Venture Duck hunters Waterfowl conservation groups Wetland managers

In Wisconsin, ring-necked ducks are the highest harvested breeding diving duck in the state and are therefore an important species comprising Wisconsin waterfowl hunter bags. Continentally, ring-necked ducks have been increasing in population size and remain above the long-term average. However, within the Upper Mississippi Great Lakes Region Joint Venture (UMGLR JV), population size remains below the JV breeding population objective.

In Wisconsin, virtually no information on ring-neck breeding ecology has been collected in at least the last 30 years. This study aims to fill in research gaps by evaluating the relationship between ring-necked duck population dynamics and habitat, and developing habitat management guidance to strategically direct habitat work and maximize population impacts.

Our methods focus on areas of known ring-necked duck nesting and brood rearing habitat using a combination of capture-recapture and telemetry techniques to evaluate vital rates and habitat associations of ring-necked ducks within their Wisconsin summer nesting range. We will also use population and habitat modeling to evaluate vital rates and habitat needs respectively.

The information obtained through this project will be utilized to directly aid in statewide management of ring-necked ducks.



### **KEY POINTS**

- This research will provide an estimate of ring-necked duck vital rates, as well as an evaluation of ring-necked duck habitat associations and spatial distributions.
- » This project will produce a ring-necked duck habitat management handbook to guide agency habitat initiatives and multiple scientific publications.



