

Doctoral OPPORTUNITY: Eastern Mallard Population Dynamics

PhD in Fish and Wildlife Biology and Management, Conservation Biology, or Applied Ecology

Department of Environmental and Forest Biology,

SUNY College of Environmental Science and Forestry

Start Date: August 2019 preferred, negotiable for January 2020

Location: SUNY College of Environmental Science and Forestry (ESF), Syracuse, New York. SUNY ESF is home to the fourth largest undergraduate and graduate education program in wildlife science, conservation biology, and aquatic and fisheries science in the United States; it is by far the largest such program in the northeastern region. SUNY ESF is located in central New York with abundant outdoor and cultural opportunities with the Finger Lakes wine region, many state properties and national wildlife refuges, Lake Ontario, the 6.1 million-acre Adirondack Park, High Peaks Region, Lake Placid Olympic Village, and New York City nearby. The Montezuma Wetlands Complex, the first Important Bird Area designated in New York, is less than an hour drive from campus. With its diverse lakes and wetlands, myriad breeding, migrating, and wintering birds, and a landscape rich in human history, the region provides an ideal place for study of wetland-wildlife. In collaboration with a diversity of conservation stakeholders throughout North America, we meet the challenges of a changing world.

Description and requirements: We seek a highly-motivated and experienced individual to enroll in ESF's doctoral program and study eastern mallard population dynamics. Decades of abundant data collection on mallards provide unique opportunities to apply a diversity of novel analytical techniques to test theoretical and applied questions. Surveys indicate that the northeastern US mallard population has declined, whereas that of eastern Canada remains stable. To date, biologists have been unable to determine why the decline has occurred. A long-term decline may mean that either survival and/or production is too low to maintain the population size. However, banding data indicate that eastern mallard survival rates are not measurably different now than they were in the 1990s, when the population was stable. Production estimates obtained from the USFWS Parts Collection Survey have not decreased either. This indicates bias in one or more critical data sets. Our goal is to investigate potential bias in these data sets and determine mechanisms for the recorded population decline. We seek applicants with experience in GIS, occupancy modeling, program MARK, and WinBUGS (or demonstrated capacity to apply these analytical tools) with a strong interest in wildlife population dynamics and landscape ecology. Experience with and knowledge of North American waterfowl conservation, ecology, and management is preferred, but not necessary.

Program Requirements: Applicants must be competitive for a departmental teaching assistantship (GPA 3.5 or higher and GRE scores above average in all categories with 2 of the 3 scores > 75th percentile, prior publications or manuscripts in review preferred). Departmental teaching assistantships include a tuition waiver and stipend.

Applying: Email a letter of interest, resume, unofficial transcripts, and GRE scores (preferably as a single pdf) to Dr. Michael Schummer (mlschumm@esf.edu). After an interview, the successful applicant will be encouraged to apply to the Graduate School at SUNY ESF.

