

MDNR 2015 Research Project Progress Reports

Diving Duck Project – NO FURTHER MIC SUPPORT REQUESTED FOR 2016

The Great Lakes and associated wetlands contribute to the importance of Michigan as a concentration area for diving ducks during migrations. Fall diving duck concentrations in Michigan support a long tradition of diving duck hunting. Michigan also contains important spring migration areas for diving ducks where the birds feed to improve body condition prior to migrating to breeding areas. Lake St. Clair, Detroit River, western Lake Erie and Saginaw Bay provide important habitats for migrating and wintering diving ducks and these areas are considered sites of continental significance to waterfowl. The areas support a diversity of waterfowl and wetland bird species, with canvasbacks, lesser and greater scaup, and redheads being prominent during spring and fall migrations. Declining use of this area by canvasbacks and a continental decline of scaup linked to inadequate food resources on spring migration areas highlight the need to better understand factors contributing to the distribution and abundance of diving ducks in Michigan.

A number of factors may be linked to changes in distribution of diving ducks in Michigan including: increased human disturbance, a longer ice-free period, rapid expansion and then decline of exotic zebra and quagga mussels, and changes in water clarity, chemistry, and submerged aquatic plants associated with exotic mussel invasions. There is also concern about impacts to diving ducks of proposed expansion of near-shore and onshore wind energy development in the Great Lakes. Our study involves analysis of existing information available from historic aerial diving duck surveys, testing new methods to quantify distribution and abundance of diving ducks via aerial surveys, and developing models of factors contributing to observed diving duck distributions so future management and policy decisions can benefit from improved understanding of diving ducks during migration.

We conducted fall, winter, and spring diving duck surveys and testing distance sampling methods as a means to estimate abundance and to model the distribution of birds over the period 2010-2015. The project focus has temporarily been shifted to incorporating existing data into regional databases of pelagic bird distribution and abundance; data collection has been scaled back until the regional analysis is completed.

Partners: The Great Lakes Commission, Upper Mississippi and Great Lakes Joint Venture, Michigan State Police Aviation Section, Safari Club International-MIC, Michigan State University, Winous Point Marsh Conservancy

Time Line and Budget: Currently, field work has been suspended as USFWS funding has been shifted to regional analysis of existing data but field data collection will likely be resumed within the next 2 years. We hope in the near future to expand the geographic scope of this study to include other important diving duck migration areas in the Great Lakes region (i.e., Saginaw Bay).