

## *Native Prairie Speaker Series*

**Title:** Prairie pond abundance and breeding success of tree swallows: What can the birds tell us about retaining ponds in agro-ecosystems?

**Speaker:** Lisha Berzins, PhD, Postdoctoral Fellow, Department of Biology, University of Saskatchewan

### **Presentation Summary:**

Aerial insectivores are declining in parts of their range and one potential driver of these declines may be agricultural intensification. Tree swallows are aerial insectivores that feed primarily on insects that emerge from ponds (i.e., wetland basins flooded with water) and so the loss or drainage of ponds associated with agricultural intensification may impact tree swallows through their insect food supply. In this talk, I will demonstrate how prairie ponds influence the reproduction of adult tree swallows, as well as how ponds and aerial insect biomass influence the quality of nestlings and annual recruitment of offspring using long-term data collected from the St. Denis National Research Area from 1990-2018. Given the importance of prairie ponds to the breeding success of tree swallows, I will also discuss, using data from a field study conducted in 2018-2019, whether retaining ponds in agro-ecosystems can offset the negative effect of agricultural intensification on tree swallows, and aerial insectivores more generally.

### **Speaker Bio:**

Dr. Lisha Berzins is a postdoctoral fellow in the Department of Biology at the University of Saskatchewan. Her research focuses on how the abundance of prairie ponds and insect food supply influence the breeding success of an aerial insectivore, the tree swallow, using both long-term data collected at the St. Denis National Research Area and field experiments. She obtained her PhD in 2017 at the University of Northern British Columbia, where she examined factors influencing the mating and reproductive success of female tree swallows. She also obtained a MSc at Trent University where she examined how increased reproductive costs influenced immune function of Black Guillemots breeding in the Canadian Arctic.

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