

GRADUATE EXIT SEMINAR

ELIZABETH AMES

Linking events across the annual cycle, in a Neotropical migratory songbird of conservation concern, the Prothonotary Warbler (*Protonotaria citrea*)



Migratory birds complete the stages of the annual cycle in areas thousands of kilometers apart and events in one location can influence subsequent events in another location. Understanding these “carry-over effects” is fundamental to identifying seasonal variation in mortality and limits on breeding output, both of which are important components of effective conservation and management strategies. However, studying the annual cycle and carry-over effects in small migratory birds presents an enormous challenge as they are difficult to track across seasons. My dissertation focuses on revealing links across the annual cycle of a Neotropical migratory songbird of conservation concern, the Prothonotary Warbler (*Protonotaria citrea*). I use intrinsic markers (i.e., measures of stress and condition) and environmental tracers (i.e., stable carbon isotopes) combined with breeding metrics to span the annual cycle. The primary objectives of my research are to 1) assess winter habitat dynamics and validate the use of stable carbon isotopes as a measure of habitat moisture (thereby quality) in the Prothonotary Warbler, 2) quantify direct and indirect carry-over effects from winter habitat on arrival timing, reproduction, and post-fledging survival, and 3) explore carry-over effects between breeding events, molt, and subsequent winter habitat use. Combined, my results highlight the importance of understanding connections across the annual cycle, as events in one stage can impact outcomes in later stages and can be mediated through variation in climate.

Advisor: Dr. Chris Tonra

FRIDAY, AUGUST 6, 2021
10:00 A.M.

Join the seminar via Zoom:

<https://osu.zoom.us/j/98964699082?pwd=NDlnVGJ3RUN3VGdZVWNObEpIVkVsZz09>

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