

CFAES

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES

MONDAY, APRIL 23, 2018 | 10:00 A.M. | KOTTMAN HALL 245

GRADUATE EXIT SEMINAR

Alicia Brunner

*The Winter Ecology and Response to Environmental Change of a Neotropical Migratory Songbird: the Swainson's Warbler (*Limnothlypis swainsonii*)*



Advisor: Dr. Christopher Tonra

"The impact of climate change on migratory bird populations is widespread, and a bird's ability to rapidly respond to environmental change is crucial in preventing population loss. Behavioral plasticity in individual space use and habitat utilization is potentially advantageous, as flexibility in space use may allow birds to adequately track resources as environmental conditions change. The goal of this study was to better understand if and how nonbreeding migratory birds respond to seasonal changes in precipitation and resources by modifying their space use. We quantified space use behaviors of overwintering Swainson's Warblers (*Limnothlypis swainsonii*) in Jamaica and examined the environmental drivers behind home range size and within-season changes in home range structure. We found that Swainson's Warblers can track spatial and temporal changes in food availability and as conditions become drier, individuals adjusted their space use to track changes in habitat and arthropod abundance. These results support the idea that some migratory birds possess the behavioral plasticity in habitat utilization and adjust their home ranges as seasonal environmental conditions change. By examining the ability of wintering migrants to track seasonal change, we can better predict the implications of long-term climate change for future populations."



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