GOS WINTER MEETING
POSTER ABSTRACTS
18-21 JANUARY 2013
TYBEE ISLAND, GA

CORRIDOR USE BY BACHMAN'S SPARROWS: OVER THE FIELD OR THROUGH THE WOODS?

Clark D. Jones[1], Jason Coombs[1], Kirk Stodola[1], and Robert J. Cooper[1]
[1]Warnell School of Forestry and Natural Resources,
University of Georgia, Athens, GA 30602

Abstract: Corridors have been repeatedly proposed and debated as conservation tools that can be used to connect patches of important habitat. Habitat connectivity created by corridors allows movement between patches that can help maintain population viability through processes of emigration and immigration. Typically, there is little available information concerning the specific requirements for a corridor to be functionally useful to a species—or group of species—because little is known about the ability of each species to traverse areas of suitable, marginal, or unsuitable habitat. Few studies have examined the importance of connectivity for birds in southeastern pine savannas despite having some of the highest levels of avian endemism in the United States. Isolated patches of habitat have been shown to have lower chances of colonization by Bachman's Sparrows and lower densities than non-isolated patches, indicating that connectivity is important to this species. We used displacement experiments to test the importance of habitat connectivity for Bachman's Sparrows, a species that requires frequent fire to maintain suitable habitat, on Fort Benning, GA. We examined the effects of distance and configuration of habitat connectivity on the probability that a displaced subject would return to its territory within 48 hours. We also tested the use of corridors by Bachman's Sparrows by following their return paths. Bachman's Sparrows displaced in habitats with lower levels of connectivity had lower probabilities of return within 48 hours than those displaced in habitats with higher connectivity. Additionally, Bachman's Sparrows preferentially used corridors of suitable habitat instead of crossing large areas of unsuitable habitat.