

**GOS SPRING MEETING POSTER AND PAPER SESSION
ABSTRACTS
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**ARE ALL TREES CREATED EQUAL? (ACCORDING TO
BLACK-THROATED BLUE WARBLERS)**

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Abstract: We examined foraging behavior of an insectivorous migratory songbird, the Black-throated Blue Warbler (*Dendroica cerulescens*), in their southernmost breeding area, the southern Appalachian Mountains, specifically, in the Coweeta Long Term Ecological Research Station. We recorded male foraging techniques, tree species in which they foraged, time spent in each tree, and number of songs performed. A variety of tree species may provide these insectivorous birds with changing resources such as insect abundance or leaf quality. We examined how time, tree choice, and foraging behavior changes throughout a breeding season. We hypothesize that a diverse forest structure is important to Black-throated Blue Warblers, and the tree species males forage on changes throughout a breeding season.

**SURVIVAL AND DENSITY OF BACHMAN'S SPARROWS
(*AIMOPHILA AESTIVALIS*) IN RESPONSE TO GROWING-
SEASON PRESCRIBED FIRES IN SOUTHERN GEORGIA**

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Abstract: The Bachman's sparrow (*Aimophila aestivalis*) is an endemic passerine of the southeastern United States that requires frequent disturbances, typically fires occurring at least every 3 years, to replenish the vegetation structure it prefers. Prescribed fires applied during the nesting season (i.e., growing-season fires) may be detrimental to this ground-nesting species if population recovery time is slow. To determine how growing-season prescribed

fires affected survival and density of Bachman's sparrows, we monitored two color-banded populations that received prescribed fires at 2 spatial extents (100 ha and <25 ha) during 2006 and 2007. Monthly survival did not differ significantly between burned and unburned plots. Growing-season prescribed fires appear to have little impact on the survival and density of Bachman's sparrows, and are an important management tool that can be used to increase burn frequencies by burning more area each year.

SEX-BASED DIFFERENCES IN WINTER BODY CONDITION OF RUSTY BLACKBIRDS IN ACORN VS. PECAN HABITATS

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Abstract: The Rusty Blackbird (*Euphagus carolinus*) has experienced an 85-95% overall decline continent-wide, with accelerated rates of population decline since the 1970s. Reasons for the decline remain unclear, but loss and modification of winter wetland habitats and associated carry-over effects to breeding grounds are likely principal factors. Winter habitats selected by Rusty Blackbirds include mast-bearing, bottomland trees and shrubs, and sources of invertebrates, small fish, and amphibians. We propose that tree mast provides lipids and carbohydrates needed by Rusty Blackbirds to endure extreme winter temperatures, and to accumulate body fat, amino acids, and other physiological needs; thus, Rusty Blackbirds foraging in habitats with abundant mast will be in excellent condition during winter and upon arrival at the breeding ground. With mist nets, we captured 57 Rusty Blackbirds in winter 2007 and 89 in winter 2009. We recorded age category, sex, mass, and lengths of wing chord, tail, and tarsus. A body condition index was based on a regression analysis of mass relative to lengths. Body condition was best explained by sex (male or female) and system (acorn or pecan habitat), determined from results of a generalized linear mixed model, where males in pecan habitat were in best winter condition. To reduce competition between males and females for pecan habitat and improve winter condition of females, we must provide more habitat with consistent and abundant mast available during winter.