

Graduate Defense Seminar

Songbird Conservation on the Landscape Scale in Southeast Ohio's Public Forestland

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370 Kottman Hall

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Sound conservation planning is essential for the maintenance of biodiversity and ecosystem function. Understanding how birds respond to habitat conditions at multiple scales provides essential information towards integrating forest and habitat management plans. The aim of this research was to add to current knowledge of habitat relationships by sampling across a broad extent to identify the relative influence of landscape and local features on bird species' occurrence. In addition, by considering unique disturbance histories implemented at the state forest scale, I quantified how these activities influence occupancy of focal species. Birds were surveyed at 280 point count locations in 2015 and 2016 in Southeast Ohio across Tar Hollow and Zaleski State Forests, and Vinton Furnace State Experimental Forest. Comprehensive habitat models were developed for five focal species of conservation concern representative of varying forest successional stages using occurrence data, detailed vegetation data, and remotely sensed data for landscape variables. Findings provide an essential component towards planning for conservation at the landscape level within state forestland in Southeast Ohio, and lend support to providing a mosaic of conditions to optimize habitat for a variety of forest songbirds.



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