

ABSTRACT

THESIS PROJECT: Cerulean Warbler population and breeding response to recent silviculture and influences of prey availability on avian nesting ecology

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This study presents the results of a field study comparing the effects of two forest harvest methods on the Cerulean Warbler, a state-endangered songbird. Population estimates and a breeding study produced no significant differences among groups, although the species was not attracted to forest openings and experienced decreased nest success in treated sites. Additional study on prey influences showed strong correlations with timing of breeding and peak larval lepidopteran abundance, specifically on oak and hickory tree species. Data suggests that these trees are vital to increased probability of nest success due to an increase in prey availability within territories. Further study is recommended to ascertain the long-term effects of forest harvest and the importance of oak and hickory dominated landscapes to the persistence of this species.