

ABSTRACT

THESIS: Does Timber Harvesting Affect Cerulean Warbler Foraging Ecology?

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We determined foraging characteristics of Cerulean Warblers (*Dendroica cerulea*) in Morgan-Monroe and Yellowwood state forests in southern Indiana from 2007-2009. The average foraging height, tree height, and tree diameter at breast height (dbh) were greater for males than females. During 2008, areas of our study site received silvicultural manipulations that allowed us to compare foraging behavior before and after treatments. Harvesting techniques included shelterwood and clearcut or single and group tree selection. Foraging Cerulean Warblers in harvested areas had a lower average foraging height, tree height, and dbh during post-treatment than in pre-treatment years. Additionally, we examined foraging tree species selection and determined expected foraging tree species use based on basal area and stem density of tree species in the territories. We compared territory composition to random sites to explore tree selection on a larger scale. The most commonly used foraging tree species were bitternut hickory (*Carya cordiformis*), white oak (*Quercus alba*), and tulip tree (*Liriodendron tulipifera*).