Assessing the Effect of Social Information on Cerulean Warbler Settlement in South-Central Indiana (Poster)

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Breeding bird settlement cues are typically defined by correlating occupancy to habitat related variables; however, social cues can influence breeding bird distributions and confound habitat modeling studies. The cerulean warbler (*Setophaga cerulea*) is one of the fastest declining songbirds in North America and conservation efforts would improve through a holistic understanding of breeding site selection. I assessed the influence of three forms of social information on male cerulean warbler breeding site selection: 1) pre-breeding cues, 2) post-breeding cues, and 3) clustered locational cues. The experiment was conducted by broadcasting conspecific vocalizations within plots that contain mature deciduous forests and have not contained a breeding territory over the past six years. Song was broadcasted in 2013 from the settlement to the post-fledging period. Song was broadcasted during the settlement period in another location in 2014 using a clustered speaker arrangement to mimic a breeding aggregation. Point counts were conducted every 3-6 days within treatment and control plots (no vocalizations broadcasted). Three males were detected in treatment plots during this study; however, no territories were established in treatment or control plots. Territories were not established in response to pre-breeding locational cues, post-breeding locational cues, or clustered locational cues, despite visitation by a male during these periods. These results suggest that conspecific social information does not have a strong influence on male cerulean warbler settlement. However, this experiment would be more conclusive if conducted in a part of its range where abundance is greater.