

POPULATION DYNAMICS OF A MIGRANT SONGBIRD:

DO WE NEED TO MONITOR THE ENTIRE BREEDING SEASON?

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ABSTRACT

In Missouri, long-distance migrant songbirds can have relatively long breeding seasons, extending all the way into September for some species. Early models that assessed population status throughout the Midwest determined that forest fragments were population sinks for migrant songbirds. I investigated the breeding of an interior forest, long distance migrant bird, the Acadian Flycatcher (*Empidonax virescens*), in Mid-Missouri to test whether seasonal fecundity is sufficiently high to support viable populations. I developed three individual-based models to predict seasonal fecundity, and compared the results of these models with the field data. I also looked at whether a renest attempt was influenced by the fate of the previous nest attempt. I found that we currently do underestimate seasonal fecundity, and that the birds do use past history to help make decisions on future nest attempts. The individual-based model had high predictive ability and needs to be tested using other songbirds species.