

Jessica Fanelli

Senior

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Summary:

The composition of avian communities is not static across the landscape. As the vegetation community changes across the landscape, so does the distribution of avian species. During the summer months when breeding takes place, bird communities are stable, as migration is not occurring. This stability allows the composition of the breeding bird communities to be discerned. My study investigates the impact of habitat on the composition of breeding bird communities in the Lackawanna State Park using song data collected in June of 2020. Three habitat types were investigated in my study: grassland, forest, and grassland/forest edge habitat. Using programmable acoustic recording units (ARUs) and occupancy modeling (OM), I estimated the species richness of the breeding bird community in the Park as well as the predicted occupancy of each species present in each habitat type. I also evaluated the usefulness of ARUs and OM for my study and found them to be beneficial, though suggest a few modifications to improve future studies.