" Tales of Three Warblers- Managing for Critical Forest Habitats in Minnesota"

The breeding bird communities of the western Great Lakes forests are among the richest and most diverse in North America. Habitat loss and degradation coupled with direct and indirect effects of climate change threaten the long-term maintenance of biodiversity in the region. Using a 20 year dataset, we developed a variety of modeling approaches to determine the drivers of species abundance and occupancy dynamics to identify underlying processes of habitat use of Minnesota’s forest bird species. We will present the results for three warbler species of conservation concern: Golden-winged Warbler, Canada Warbler, and Connecticut Warbler. These species have experienced significant, long-term population declines and forest habitat issues on the breeding ground are especially important for their conservation.  The results and impacts of this research demonstrate the utility of using birds as environmental indicators to develop and inform science-based adaptive forest management practices to conserve biodiversity.