



Songbird Monitoring Along the Grand Portage

Since 1999, 38 points along the historic canoe portage from Lake Superior to the Pigeon River have served as songbird survey sites each June. Data from 2000 through 2014 were analyzed to identify population trends by species and among guilds (functional groups) organized by *migration strategy* (permanent resident, short-distance migrant, and long-distance/Neotropical migrant); *habitat preference* (grassland/open, wetland, successional/scrub, woodland, urban); *diet* (frugivore, granivore, insectivore, omnivore); and *foraging substrate* (air, bark, ground, shrub/low canopy, high canopy).

Overall Trends—Species and Guilds

Among 86 songbird species with a sufficient amount of data for analysis, **two species showed statistically significant increasing trends** (Yellow-rumped Warbler and Nashville Warbler) and **seven species exhibited significant declining trends** (Ovenbird, Hermit Thrush, Chestnut-sided Warbler, Pileated Woodpecker, Downy Woodpecker, and Least Flycatcher).

Though most guilds showed declining trends (only three of the 17 increased over time), only the frugivore guild's trend (<1% decline per year) was statistically significant.

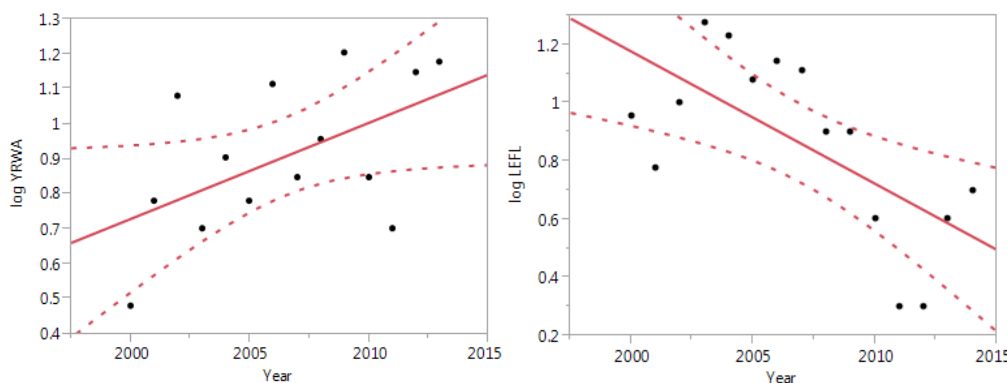
The Take-Away

Among the strong or significant trends at Grand Portage, three species worth watching are the resident Downy, Hairy, and Pileated woodpeckers, all of which are in significant decline. In contrast, two

other migratory woodpeckers—the Northern Flicker and Yellow-bellied Sapsucker—are showing stable or slightly increasing trends. However, the number of birds reported as “unknown” on surveys at Grand Portage increased strongly over this time period. Many birds identified as “unknown” during surveys are Downy, Hairy, and Pileated woodpeckers, which are notoriously difficult to identify based on drumming sounds alone, whereas the flicker has a distinctive call that often accompanies its drumming and sapsuckers make a distinctive tapping sound. These characteristics could account for the stable or increasing trends of flickers and sapsuckers but declines among the other three species.



Yellow-rumped Warblers are showing the strongest population increase at Grand Portage (see graph below left). Photo by Andy Reago and Crissy McClarren/Wikimedia Commons.



Yellow-rumped Warblers are increasing at a rate of 3% per year, the strongest population increase at Grand Portage, while Least Flycatchers (along with Downy and Pileated woodpeckers) are declining at a rate of 5% per year. These species abundance data are log-transformed, with linear trend line shown.