

such as Eastern Wood-Pewee, Wood Thrush, American Redstart, and Ovenbird. Moreover, forest edge species such as Mourning Dove, House Wren, and Indigo Bunting were found at lower relative abundances than expected. McKay et al. (1999), in a similar study, found doves, wrens, and buntings at higher relative abundances.

Frequency of occurrence and relative abundance demonstrated that Blue Jays and American Crows were found throughout most of the site and were the most abundant species. Additionally, these birds were present during all survey periods. Other species, such as the Red-bellied Woodpecker and Northern Cardinal, had a high frequency of occurrence, but low relative abundance among survey periods. This suggests that although few individuals were encountered during our surveys, they were nonetheless scattered somewhat evenly throughout the site.

Although GWEL may be beneficial to some taxa, it may negatively affect other species, such as some breeding NTMs. In a geographic sense, GWEL is a small patch of nat-

ural habitat in a highly fragmented landscape. Robinson et al. (1995) found that breeding NTMs in this region of the Midwest experience low reproductive success due to high nest predation and brood parasitism by Brown-headed Cowbirds compared to breeding NTMs in unfragmented, continuous large tracts of habitat. Therefore the authors speculate that fragmented sites, such as GWEL, may be functioning as "sinks" in source-sink population dynamics. As a consequence, low reproductive levels require constant immigration from "source" areas (unfragmented core areas) for populations within sinks to be maintained. Future studies at GWEL could address this hypothesis by determining which NTM species breed and estimating reproductive success, immigration, long-term site fidelity, and nest predation and parasitism by cowbirds on NTMs, especially in light of higher than expected relative abundance of cowbirds (McKay et al. 1999).

In a conservation sense, seven species were observed at GWEL that are suspected to be in decline according to the Audubon Watchlist 2002 (Anonymous 2002): American Wood-

cock, Red-headed Woodpecker, Wood Thrush, Golden-winged Warbler, Bay-breasted Warbler, Blue-winged Warbler, and Kentucky Warbler. Lastly, the Golden-winged Warbler is one of the top five species identified as being of high management concern (Thompson et al. 1993).

Overall, our results demonstrate the potential importance of GWEL to Midwestern avian populations, and suggest that the site may be functioning as a "habitat island" and migration corridor within a landscape matrix dominated by agriculture. Consequently, this may indicate the relatively high value of similar habitat "patches" within this region to avian populations.

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Lesser Yellowlegs was one of the most common migrants at Green Wing Environmental Laboratory. Photo by Mary Kay Rubey.