Biological Sciences - Terrestrial

Who gets parasitized by Brown-headed Cowbirds? The importance of everyday host activity [TWS]

Alison J. Banks, Graduate Student
Montana Cooperative Wildlife Research Unit
University of Montana - Missoula 59812

The recent range expansion of the Brown-headed Cowbird (*Molothrus ater*) in North America has introduced brood parasitism as a new selective force for many host species. High parasitism rates cause greatly reduced reproductive success for many species. Parasitism rates vary dramatically among species, but factors affecting the probability of parasitism remain poorly understood. Cowbirds are thought to find nests by watching adult behavior, and nest defense behavior correlate with parasitism rates among some species. Other more prominent behaviors (e.g. nest-

building visits, mate-feeding, vocalizations) centered around the nest during early nesting phases may also serve as cues to nest searching cowbirds. I test an "everyday activity" hypothesis in which pairs more active around their nests during the early nesting phases have a higher probability of being parasitized than less active pairs. I measured behaviors of American Redstarts (*Setóphaga ruticella*), Yellow Warblers (*Dendroica petechia*), Dusky Flycatchers (*Empidonax oberhólseri*), and Warbling Vireos (*Vireo gilvus*) nesting in the same habitat but differing in parasitism rates. I find a positive correlation between male singing rates near nests and parasitism across species. Within species, too, parasitized males sing more than unparasitized males. Female activity and frequency of nest visitation appear uncorrelated or inversely correlated with parasitism. These data suggest that cowbirds may exploit male behaviors when searching for nests and that we might expect the frequencies of such behaviors to change over time in response to parasitism pressure.