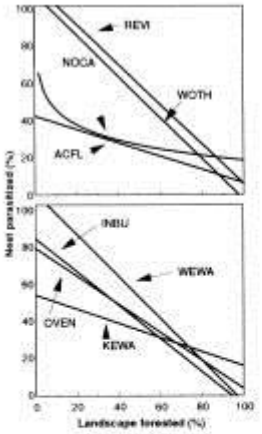
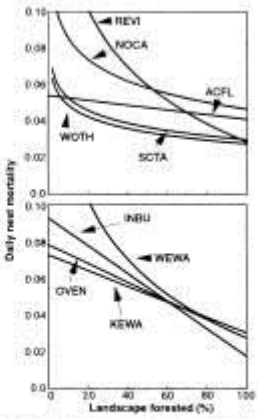
Details

The Central Hardwoods Bird Conservation Region (BCR) historically was composed of tallgrass prairie; glades and barrens; oak savanna and pine woodlands and forests. The objective of this project was to develop a GIS to help define and integrate geographically explicit habitat conservation strategies to sustain all priority bird species across the BCR. One goal was to identify relatively large landscapes most able to support viable populations of priority woodland-forest, grassland, grass-shrub, and wetland birds.

The figures indicate that in the central Midwest reproductive success of forest birds often is enhanced significantly in landscapes with fairly vast expanses of forest. Maps of areas with 70% or greater forest in a 10 km radius were generated by MoRAP using a neighborhood function. Neighborhood functions produce an output in which the value at each location is dependent on the input value of the cells in a specified neighborhood.

Public lands were then overlain upon the percent forest maps. Public lands falling within forested areas were buffered 10 km to identify the surrounding matrix that needed to be considered for maintaining reproductive success of forest birds.





Correlations between levels of brood parasitism and nest predation with the percent of forest cover in nine Midwestern landscapes. From: Robinson, S. K., Thompson III, F. R., Donovan, T. M., Whitehead, D. R. and J. Faaborg. 1995. Regional forest fragmentation and the success of migratory birds. Science 267:1987-1990.

MoRAP generated a grid of areas with 30% or greater grassland cover within a 3 km radius to identify potential source areas for grass/shrub birds.

Layers used to identify wetland focus areas included water bodies from the hydrology data and emergent and woody wetlands from the National Land Cover Dataset. Participants' knowledge of local conditions and wetland habitats also were incorporated.

Cedar Waxwing

Biologists, land managers and other technical staff from the region's conservation agencies and organizations met in breakouts by habitat type to

identify focus areas for the various habitat types and species groups. Hard copy maps of landcover and laptop computers loaded with geographic information system software were available to each breakout. Geospatial data used in delineating bird conservation areas was compiled from a variety of sources.