SIU CARBONDALE SOUTHERN ILLINOIS UNIVERSITY DEPARTMENT OF FORESTRY

SWAMP RABBITS: AN INDICATOR SPECIES FOR BOTTOMLAND HARDWOOD FOREST ECOSYSTEM MANAGEMENT?

A McIntire-Stennis supported project

Bottomland hardwood (BLH) forests provide high quality habitat for wildlife species and serve as the basis for recreational tourism and the wood products industries throughout the Lower Mississippi Alluvial Valley. Wildlife habitat managers are typically tasked with maintaining suitable habitats for a diverse biota, but lack clear metrics for ecosystem health in this characteristically complex environment.

Research in other forest ecosystems have determined that easily measured indicator species serve as a useful proxy for broader ecosystem health. Our previous research suggests that swamp rabbits occupancy may be a useful indicator of habitat suitability for several other less easily sampled species that depend upon BLH forests.

Our present research relates BLH forest stand age, structure, and composition characteristics to occupancy by swamp rabbits and other wildlife species. The project will develop a model allowing managers to use swamp rabbit occupancy data to serve as a basis for decision-making needed to maintain BLH ecosystem health.

TARGET AUDIENCE

- Interagency land managers at Cache River Joint Venture Partnership
- The Nature Conservancy
- Illinois Department of Natural Resources
- U.S. Fish and Wildlife Service
- Ducks Unlimited
- Natural Resources Conservation Service
- Wildlife managers in southern Illinois and across the Midwest and mid-south
- The interested public, including hunters and students at Southern Illinois University.

About McIntire-Stennis

The McIntire-Stennis program, a unique federal-state partnership, cultivates and delivers forestry and natural resource innovations for a better future. By advancing research and education that increases the understanding of emerging challenges and fosters the development of relevant solutions, the McIntire-Stennis program has ensured healthy resilient forests and communities and an exceptional natural resources workforce since 1962.

USDA

IMPACT

Wildlife habitat managers can now use swamp rabbit abundance as an inexpensive surrogate indicating high quality habitat for associated key bird and reptile species. Thus, resources can be reallocated for furthering other conservation, hunting, and ecotourism activities.

5M

Applicable to 5 million acres of forest habitat in the southern and Midwestern U.S.

22+

Training opportunities for 1 PhD, 1 MS and 20+ undergraduate students preparing for careers in wildlife habitat management.