

INFLUENCE OF HUMAN ACTIVITY UPON WILDLIFE BEHAVIOR AND DEMOGRAPHY

A McIntire-Stennis supported project



Forestry and Natural Resources

As the human population continues to grow, it becomes increasingly important to understand how various human activities impact wildlife species and environments.

This project will study the effects of a wide range of human disturbances, including urban development, climate change and outdoor recreation, on wildlife abundance, survival, reproductive success, feeding behaviors and dispersal patterns.

The field data regarding individual species and habitats can then be input into existing computer modeling tools that have the ability to simulate scenarios and predict future impacts on a large scale, which would take several years and multiple empirical studies to achieve.

The outcomes of this project will provide tools for understanding how a wide variety of species are impacted by very specific scenarios of habitat change and what can be done to mitigate the negative effects. This includes conservation of existing lands, restoration of habitat and modifying human activity to accommodate wildlife.

COLLABORATION

This project includes collaborators from across the country, including researchers at universities as well as with non-governmental and governmental organizations.



14

5 Purdue graduate students and 9 undergraduates gained training and work experience on this project in 2019

IMPACT

With an estimated 329 million people in the United States, the impact on domestic wildlife and their habitats is growing. This project aims to mitigate negative effects with field study and modeling.



10,292

State parks and National parks in the United States (58 national; 10,234 state)



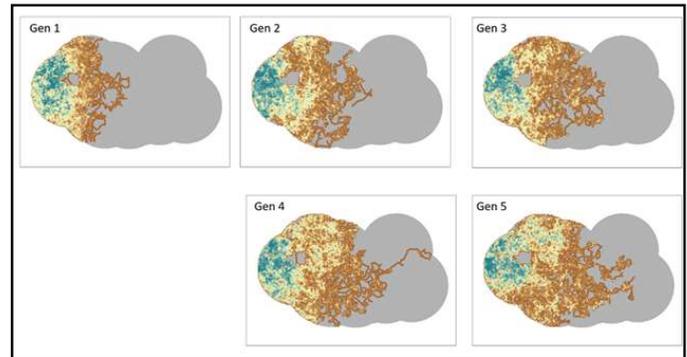
1,300

There are more than 1,300 endangered or threatened species in the United States (EPA 2019)



413

Bird species have been found in Indiana. The state provides breeding habitat for 180 species



A series of point density maps of marten locations during simulated dispersal events that demonstrates the progression of dispersal across the landscape over time.

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.

