

HUMAN WILDLIFE CONFLICTS

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Cooperators:

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Goals:

Wildlife and Agricultural - The primary objective of this research is to quantify the extent and frequency of crop depredation by wildlife species in the agricultural region of northern IN using a stratified random sampling of depredation events in crop fields (corn and soybean) while using telemetry data to document the compositional habitat use of white-tailed deer and raccoons in the same agricultural matrix

Raccoon Ecology – The primary goal of this research is to explore the ecology of raccoons inhabiting fragmented agricultural landscapes through studies of factors affecting their behavior, genetics, and disease transmission dynamics

Recent Publications:

Rhodes Curriculum Vitae

Statement of Problem:

My research in the area of human-wildlife conflicts focuses on 1) identifying the causal mechanisms underlying negative interactions between wildlife species and humans in a variety of contexts and 2) building solutions that minimize the potential for such conflicts to occur. Changes in human technologies, land use patterns and the densities and distributions of wildlife species have greatly increased the potential for conflicts between humans and wildlife to arise. The negative impacts upon and perceptions toward wildlife species that accrue as results of these conflicts are detrimental to our ability to sustain ecological processes in human dominated landscapes. A primary goal of my research in this area is to develop management options that allow industries, agricultural producers and wildlife species to coexist in the same spatial context within a range of acceptable economic and ecological limits. In the past decade, my students and I have performed a number of research projects in realm of human-wildlife conflicts. These include 1) studies of the factors contributing to avian interactions with power line structures and evaluations of marking devices to lower the incidence of avian mortalities associated with power line strikes, 2) studies of flight behavior in black and turkey vultures for the purpose of reducing in-flight aircraft collisions with birds, 3) studies of the causes and extent of depredation on eggs and chicks of federally endangered interior least terns nesting on corporate facilities, 4) studies of wildlife crop depredation in corn and soybean fields in northeastern Indiana and 5) research evaluating the extent of wildlife hazards to civilian aircraft in the airfield environment of small municipal airports.

Ongoing Projects:

- 1) The Influence of Landscape Attributes on the Spatial Dynamics and Temporal Stability of Raccoon Populations, and Raccoon Population Recovery Following Local Depopulation**
- 2) Assessment Of Crop Depredation And Habitat Use By Wild Turkey, White-Tailed Deer, And Raccoon In The Upper Wabash River Basin**
- 3) Relationships Landscape and Micro-scale Habitat Attributes, Food Resources, and Population Structure of Raccoons in Agricultural Landscapes**
- 4) Energy Transfer in Fragmented Agricultural Landscapes: Experimental Manipulation of Scavenging Communities**
- 5) Disease Transmission Dynamics of Raccoons in Agriculturally Dominated Landscapes**