

Project Details November 1996

Vertebrate Modeling Project 11-96, [Tim Haithcoat](#) - University of Missouri, [Geographic Resources Center](#)

This project's focus is the assessment of vertebrate distributions and the modeling of species / habitat relationships for [GAP](#). Through these analyses we hope to obtain a better understanding of the biodiversity within the state. One key element of this project will be the compiling and assembling in one location species distribution data sets from across Missouri. Museum records, species lists, breeding bird atlas information, herpetological records, and other sources will be consulted to assess species' ranges. These data, and the expert opinions associated with them, will form a major portion of the assessment / validation of species distributions within the state. At the same time, species / habitat models will be constructed for those species identified by the working group as being of most importance for the assessment of biodiversity. A matrix showing the relationship of species to land cover categories will be constructed. Models will then be compiled to enable their application to the land cover data bases so that predicted range maps can be created for each species chosen. Modeling results will be evaluated by expert review and the analysis of distribution and field validation data sets.

Tim Haithcoat will coordinate primarily through the Geographic Resources Center at MU. Two Graduate students, Kelly Kessinger and Tracy Emery will be working under the direction of Tim and Ron Drobney of the Cooperative Fish and Wildlife Research Unit. Issues being evaluated within the research component of this project include quantifying measures of species presence, generalization of species distributions and land cover associations, and the effects of scale and resolution on the results.