

INTEGRATING EFFECTS OF LAND USE CHANGE ON INVASIVE PLANT SPECIES DISTRIBUTION INTO AN INVASIVE PLANT ATLAS FOR THE MID-SOUTH (IPAMS). J.D. Madsen and G.N. Ervin, GeoResources Institute and Department of Biological Sciences, Mississippi State University, Mississippi State, MS 39762.

ABSTRACT

Invasive weedy plants are a widespread problem throughout the United States. Their growth is often widely dispersed, with little scientific ability to predict why they occur in a given location. In addition, historical human activities such as urbanization, agriculture, and forestry have a marked effect on the distribution and spread of invasives. This project will quantify relationships of weed distribution and spread with land use, then use that information directly in educating agriculture stakeholders, natural resources managers, and other interested parties on potential human-induced opportunities for invasive species spread. The Invasive Plant Atlas of the Mid-South (IPAMS) will provide information on the biology, distribution, and best management practices for forty weedy plant species. Outreach and extension activities include developing training programs for volunteers to identify and report invasive species using IPAMS, developing an efficient Early Detection and Rapid Response (EDRR) system for invasive plants, developing best management practices workshops, and developing an online mapping system. Research activities include conducting systematic regional vegetation surveys to assess the distribution of key invasive plants, developing models for predicting the occurrence of target species based on land use and cover, and evaluating the relative effectiveness of professional versus volunteer surveys.