WORKSHOP
GIS for Invasive Weed Management and Research

Monday, February 4, 2008, 9:00 am to 4:00 pm
Cost per attendee: $100.00 (does not include lunch)
Preregistration required – see the meeting preregistration form. Workshop must have a minimum of 20 individuals.

Researchers, federal, state and county land managers and even citizen scientists are mapping infestations of invasive weeds with GIS. There are classes and manuals on how to map weed infestations, but little information on what can be learned from these maps with either simple or advanced methods of GIS. This one day workshop will provide an introduction to the use of Geographic Information Systems (GIS) and will focus on analysis and examples related to invasive weeds. Experienced instructors from the GeoResources Institute at Mississippi State University will lead the workshop.

TOPICS:

- **Overview of GIS**

This will be an overview and explanation of GIS concepts for a basic understanding in preparation for the topics to be covered during the workshop and symposium.

- **Web-Based Mapping for Plant Detection and Management**

A plant database is being generated and coupled with a web-based GIS for rapid dissemination of geographic data to a large audience. This system will be demonstrated and project details will be discussed.

- **Invasive Aquatic Mapping Using GPS and GIS**

A point intercept survey is a cost effective and efficient method to survey large areas and collect large quantities of data on the distribution and abundance of plants. Techniques and equipment used to collect data on the distribution and abundance of aquatic macrophytes will be discussed and demonstrated.

- **GIS Based Modeling for Prediction of Invasive Weeds**

A GIS model can be constructed to delineate and evaluate suitable habitat for a species by identifying areas of convergence of environmental and ecological factors. These models can be refined using logistic regression models and other statistical permutations to get a more "real world" view of species dynamics. A case study will be presented that uses the ArcGIS suite of software with the ModelBuilder application for habitat modeling of Eurasian water milfoil.

- **Spatiotemporal Analysis of Multi-Year Weed Data**

Techniques will we discussed and demonstrated for analyzing multi-year weed data to give insight into the behavior of weed populations over time.

For more information: email lori.wiles@ars.usda.gov

Symposium organized by David Shaw, Lori Wiles and Lisa Rew

Related Symposiums at the Meeting

GIS for Invasive Weed Management and Research, Feb. 5th

A related GIS symposium will follow during the WSSA meeting. The symposium will be an added introduction to GIS for scientists who are not familiar with this tool and an opportunity for WSSA members who use GIS to meet experts and learn new approaches

Invasive Plant Species and the New Bioeconomy, Feb. 6th