



THE SECRETARY OF THE INTERIOR  
WASHINGTON

CITATION

**PARTNERS IN CONSERVATION AWARD**

**ADVANCED INVASIVE SPECIES MODELING ROOM**

In recognition of the development of the U.S. Geological Survey's Advanced Invasive Species Modeling Room and its goals of developing predictive spatial models for early detection and rapid response to harmful invaders.

Every ecosystem in the United States has been invaded to some degree by harmful invasive species, including plants and animals. Invasive species contribute to substantial ecological, economic, and human health costs. In the United States, this translates to an estimated \$120 billion per year, more than all other natural disasters combined. In a joint effort to combat these invasive species, USGS scientists recognized an urgent need and created the "Advanced Invasive Species Modeling Room" at the Fort Collins Science Center in Colorado. They leveraged funding to create this "war room" where scientists and partners can use advanced technology to better document, map, and predict the spread of harmful plants, animals, and diseases in the United States. As a result, new partnerships have formed across the Nation among individual landowners, citizen groups, private sector, nongovernmental organizations, and other Federal, State, local, and tribal governments to provide rapid response to invasive threats. The Advanced Invasive Species Modeling Room has three major e-components: equipment, expertise, and enthusiasm. The computer equipment includes a large touch-screen monitor, server, and computer loaded with the new, open-source, spatial analysis programs. The expertise includes well-trained spatial modelers. The "enthusiasm" develops naturally among with the variety of partners who bring their on-the-ground data on invasive species locations, specific management objectives, and cooperative spirits. The scientists work with the partners to customize models, transfer the technologies, and show how the predictive spatial models are best used for early detection and rapid response. In one effort, citizen scientists, Federal agencies, states, counties and tribes combined their data on the distribution of Tamarisk (salt cedar) in the western United States to map tamarisk distribution to estimate expensive water losses in the West. For its work to develop new capabilities in ecological forecasting of harmful invasive species in the United States, the U.S. Geological Survey is granted the Department of the Interior's Partners in Conservation Award.