

Detecting Invasive Exotic Plants

by Bob Doren

Approaches for the Florida Landscape, February 12-14, 2003

The South Florida Ecosystem Restoration Task Force and Working Group's invasive species arm, the Noxious Exotic Weed Task Team (NEWTT), held a workshop and conference to answer basic questions about the detection and mapping of invasive exotic plants.

The first day covered technical aspects of the different methods of remote sensing, imaging technologies, scaling, computer storage and retrieval considerations, and equipment. The second day covered existing applications of field and remote sensing and modeling applications to assist managers in finding and managing invasive plant populations. The third day was a series of workshop discussions based on topics from the previous two days, and pre-defined conference questions and goals. The discussions related to practical applications, enhancing existing programs, and helping agencies integrate these concepts into their work.

Three overarching issues became apparent:

1. Remote sensing using imaging systems (photographs, thematic imagers, etc.) is generally not applicable or practical in instances where both very detailed and high-resolution results are required, or where extremely large areas are being covered. In the case of extremely large areas of coverage, modeling seems to be developing as a practical alternative tool for locating the most probable locations of exotics.
2. Simple, low-tech and low-cost tools are essential to field man-

agers who are on the ground trying to find and control invasive species. In most instances, managers are not remote sensing specialists and have extremely limited budgets. The most important aspect for them is to find the plants and control them.

3. Existing low-tech field remote sensing methods are practical, cost-effective, and achieve basic agency aims; however there is general agreement that these methods are not sufficient to meet other critical information needs such as repeatability, re-treatment information, ecological and landscape use relationships, and areal extent and invasion rate calculations. In particular, more precision is needed in spatial coordinates for species locations. The expert panel members felt this was the most important improvement that could be made and was critical to future GIS spatial analyses and prediction.

These points will provide direction and guidance during preparation of a comprehensive report of the conference results. The report is intended to be a "user's manual" for developing and implementing a cross-agency program for detection, mapping and assessment of invasive exotic plants. The report will include a sufficient number of different approaches and mapping scales to provide most users with reliable, repeatable and interoperable methods for the majority of different needs.

For more information, contact Robert Doren, South Florida Ecosystem Restoration Task Force, doren@fiu.edu

ARSENAL
herbicide

Sahara
DG herbicide

PLATEAU
herbicide

PENDulum
herbicide

STALKER

**Solving vegetation problems
with cost effective solutions.**

Invasive Plant Control
Brush Control
Bareground
Turf Management

Basal Applications
Cut Surface Applications
Pre-emergent Control
Aquatic EUP

For more information call Phil Waller at 863-619-6255 or visit www.vmanswers.com

BASF