Invasive Species Data Collection at Bugwood

Chuck Bargeron & Dave Moorhead
The University of Georgia Center for Invasive Species and Ecosystem Health
History
How we got here...
Launched in 2001 with 3500 images
Launched in 2002 as a portal to Invasive Species Information and to support CAPS
Present
Where we are now...
7.9 Hits per second to Bugwood Websites
10 Average daily reports to EDDMaps
5

Average daily reports to EDDMaps in Florida
Verifiers

- State Exotic Pest Plant Councils
- State Forestry Departments
- State Agriculture Departments
- State Wildlife Agencies
- CAPS Network
Japanese Honeysuckle Distribution in Georgia from USDA PLANTS Database – May 2013
Japanese Honeysuckle Distribution in Georgia from EDDMapS
– May 2013
The Global Invasive Species Information Network (GISIN) was formed to provide a platform for sharing invasive species information at a global level, via the internet and other digital means.

GISIN Data Standards Workshop Summary is now available for download. Held at Elmira College in New York, on 26-30 July 2006, the workshop provided the basis for a prototype system, to be made available online at http://www.gisin.org.

GISIN Data Standards Workshop Summary Report - Simpson
Janevich, de Munch PDF
Introduction

The continued proliferation of large, invasive reptiles poses a serious threat to the natural areas of Florida. Early detection shows successful control requires early detection and a rapid response. Thus, receiving timely observations from individuals in the field is perhaps the most important step in the process. This set of field cards has been developed to assist field personnel in the identification of priority reptile species and provide direction regarding how and where to report such observations. Help prevent the spread of nonnative species by following these three steps.

Step 1: Be Prepared

Improve your chances of spotting nonnatives by driving at lower speeds and maintaining the distractions in your vehicle. Scan likely habitats through open windows to improve visibility. Engage in many available observers as possible. Carry equipment that avoids in making accurate observations: binoculars, a digital camera, a measuring tape, and GPS unit. Being prepared can result in high-quality observations and help ensure your safety.

Report Sightings by Phone or Online at:
1-888/1/E-GOTI (1-888/468-4681)
www.tvosoft.org

Everglades Cooperative Invasive Species Management Area
Ivreot

Description

This app is a Field Identification of Select Native and Nonnative Reptiles in Florida. It was developed to provide easy access to discrimination characteristics of common native and nonnative reptiles in Florida. Successful control of nonnative species requires early detection and a quick response. Releasing their observations from individuals in the field is perhaps the most important step in the process. This App has...

Released - June 2010
Need to Identify a Python? There's an App for That.

Posted by Erin Griffin, Communications and Outreach Coordinator, University of Georgia, Center for Invasive Species and Ecosystem Health, on October 5, 2010 at 11:53 AM

The University of Georgia's Center for Invasive Species and Ecosystem Health has developed an iPhone app, called iVeGotU, to help identify native and non-native reptiles in Florida.

This post is part of the Science Tuesday feature series on the USDA blog. Check back each week as we showcase stories and news from the USDA's rich science and research portfolio.
The Ultimate Always-With-You Pest & Invasive Species Reporting Tool
Invasive Species in Florida?

Yep, we’ve built an App for that!

IveGot1 now brings the power of EDDMapS to both your iPhone® and Android™ devices.

IveGot1 was developed by the University of Georgia Center for Invasive Species and Ecosystem Health through a cooperative agreement with the National Park Service, in cooperation with the Florida Fish and Wildlife Conservation Commission and the University of Florida Center for Aquatic and Invasive Plants.
Overall

3188 Android Downloads not Including What's Invasive

iOS

Android
Future
Where we are going...
Where we are going?

Field Guides
iPad Optimized
Better Follow-up

-
Chuck - Today

Associate Director for Invasive Species and Information Technology

Past President – National Association of Exotic Pest Plant Councils

Appointed to National Invasive Species Advisory Council

Chair-Elect - North American Invasive Species Network
iPad at 7 years old

Charlie – May 2013 with iPad2
iPad at 3 years old

John Michael – May 2013 with iPad3
Key Points

Easy
Sharable
Verifiable
Let’s expand the CISMA model across the Southeast and document, prevent and control invasive species
Thanks!

cbargero@uga.edu
moorhead@uga.edu
www.bugwood.org
www.eddmaps.org
apps.bugwood.org
Invasive Plants of the 13 Southern States

E. Chambliss, J. Miller and C. Bargeron
Invasive Plants of the Thirteen Southern States

Erwin B. Chambliss  
Southern Research Station  
USDA Forest Service  
Auburn Alabama

James H. Miller  
Southern Research Station  
USDA Forest Service  
Auburn Alabama

Charles T. Barger  
The Bugwood Network  
The University of Georgia  
Tifton Georgia

This is a May 2013 compilation of invasive plants currently listed by the Federal Noxious Weed Law (with amendments), State Laws (with amendments), and Exotic/Invasive Plant Councils for the 13 Southeastern States. These 13 States comprise the Southern Region of the USDA Forest Service. Listed invasive plants are grouped by growth form, those that are aquatic plants, and 2 separate “Watch Lists”. Plant scientific and common names along with designations of invasive, native or naturalized are according to the USDA Natural Resources Conservation Service’s Plants Database (http://plants.usda.gov) and other authoritative sources. Images, descriptions, and maps of known occurrence of most of these species are available at Plants Database and the University of Georgia’s EDDMapS (www.eddmaps.org).

The objective of this compilation is to assist in the formulation of local and strategic programs at the Regional and State levels that should consider invasive plants listed in adjoining States. Cooperative and collaborative programs and actions within and among States are imperative when addressing invasive plants. This compilation should also guide plant developers to avoid these listed invasive species when planning and enacting breeding and production programs. This compilation is an update to the May 2004 “Invasive Plants of the Thirteen Southern States” (http://www.invasive.org/south/seweeds.cfm).

The Federal Noxious Weed Law of 2000 (with amendments) regulates the importation, sale, and inter-state transportation of listed species. The Law also requires all States to adopt the Federal List in their individual noxious weed laws. State laws regulate the importation, intra-state sales, and intra-state transportation of listed species. Currently, 10 States within the region have noxious weed laws, while only 5 States have adopted plant species from the Federal List. Those States that include federal listed plants are Alabama, Georgia, North Carolina, South Carolina, and Florida. Louisiana, Kentucky, and Virginia do not have noxious weed laws. The general criteria for listing used with State Laws are provided in header links to more complete information. Noxious weed lists represent the first line in preventing and containing invasions, because all people are legally required to avoid planting listed species within a jurisdiction.

Exotic Pest/Invasive Plant Councils have been formed in 10 Southeastern States and 8 of these councils belong to the Southeast Exotic Pest Plant Council (www.se-eppc.org). These councils formulate invasive plants lists using expert opinion for their State and are periodically reviewed and updated (more complete information on listing criteria are provided through header links). These lists have no legal authority while they are often referenced and used in formulating lists for federal agencies within a State and other non-governmental organizations. The Oklahoma Invasive Plant Council and Mississippi Exotic Pest Plant Council’s lists are still in draft form. We have included the Virginia Department of Natural Resources’ list in lieu of a State and council lists.

Please note: You may click on each of the State headers below to resort the list. The scientific names are also hyperlinked to images and information about the plant. You may click on headers for Laws and Lists to access copies of these.
2013 Update

- Federal Noxious Weed Law
- State Weed Laws
- State EPPC Lists

Invasive Plants of the 13 Southern States
<table>
<thead>
<tr>
<th>State</th>
<th>List Type</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Arkansas</td>
<td>LAW (2011)</td>
<td>a) Prohibited cannot be sold or offered for sale in state b) Declared public nuisance</td>
</tr>
<tr>
<td>Mississippi</td>
<td>LAW (2004)</td>
<td>a) General list not categorized b) Declared public nuisance</td>
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<tr>
<td>Alabama</td>
<td>LAW (2006)</td>
<td>a) Class A - Federally listed species in state, b) Class B - Non-native, in state, c) Class C - poses harm to industries</td>
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<tr>
<td>South Carolina</td>
<td>LAW (2009)</td>
<td>a) General list not categorized b) Declared public nuisance</td>
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<tr>
<td>Florida</td>
<td>LAW (2008)</td>
<td>a) General list not categorized b) Declared public nuisance</td>
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<td>Oklahoma</td>
<td>LAW (2008)</td>
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<td>Georgia</td>
<td>LAW (2008)</td>
<td>a) General list not categorized b) Declared public nuisance</td>
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<tr>
<td>Tennessee</td>
<td>LIST (2009)</td>
<td>a) Severe threat, has invasive characteristics, spreads easily and displaces native vegetation or natural areas</td>
</tr>
<tr>
<td>Mississippi</td>
<td>LIST (2010)</td>
<td>a) Threat to habitat and natural areas, b) Moderate threat to habitat and natural areas</td>
</tr>
</tbody>
</table>

**Kentucky: LIST (2011)**
- Rank 1: Severe threat; exotic plant which has characteristics of invasive species and spreads easily into and displaces native plant communities
- Rank 2: Significant threat; has fewer invasive characteristics than Rank 1 species, has less impact and capacity to invade native plant communities only along disturbance corridors or disturbed sites
- Rank 3: Lesser threat; primarily spread and establish in disturbed corridors, not readily invading natural areas, also some agronomic weeds

**South Carolina: LIST (2011)**
- Severe threat: Invasive exotic plant species which are known to pose a severe threat to the composition, structure, and function of natural areas in the state of South Carolina
- Significant threat: Invasive exotic plant species whose spread and establishment have been confirmed in South Carolina or in adjacent states, in limited infestations with substantial management difficulties, or widespread with minor management difficulties

**Virginia: LIST DCR (2009)**
- Highly invasive, exhibit the most invasive tendencies in natural areas and native plant habitats. They may disrupt ecosystem processes and cause major alterations in plant community composition and structure. They establish readily and spread rapidly.
- Moderately invasive species may have minimal influence on ecosystem processes, alter plant community composition, and affect community structure in at least one layer. They may become dominant in the understory layer without threatening all species found in the community. These species usually require a minor disturbance to become established.
- Occasionally invasive species generally do not affect ecosystem processes but may alter plant community composition by outcompeting one or more native plant species. They often establish in severely disturbed areas. The disturbance may be natural or human origin, such as livestock damage, windbreak, or road construction. These species spread slowly or not at all from disturbed sites.

**Florida: LIST (2011)**
- Category I - Aliens native plant communities thru displacement resulting in ecological damage
- Category II - Increasing in abundance and frequency but not altering plant community to the extent of Category I invasive

**Texas: Invasive Plant Council LIST**
- 1. High - These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically or have spread throughout the state. Some species are widespread and abundant but generally do not cause significant ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.
- 2. Moderate - These species have substantial and apparent but generally not severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

- Threat to habitat and natural areas
- Moderate threat to habitat and natural areas
- Watch List
<table>
<thead>
<tr>
<th>Growth Form</th>
<th>Scientific Name</th>
<th>Common Name</th>
<th>US law</th>
<th>AR law</th>
<th>MS law</th>
<th>AL law</th>
<th>SC law</th>
<th>NC law</th>
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<td>Abutilon pictum L.</td>
<td>crape myrtle</td>
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<td>Vines</td>
<td>Dioscorea polyspina Tzcz. (formerly D. polystachya)</td>
<td>Chinese yam</td>
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<td>Vines</td>
<td>Epipremnum pinnatum (L.) Engl.</td>
<td>cantalope longvine</td>
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<td>Vines</td>
<td>Eunymus fortunei (Tzcz.) Hand-Mazz.</td>
<td>winter creeper</td>
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English ivy
Hedera helix L.

Resources

- Plant Invaders of Mid-Atlantic Natural Areas - National Park Service and U.S. Fish and Wildlife Service
- Weed of the Week - USDA Forest Service
- Weeds Gone Wild: Alien Plant Invaders of Natural Areas - Plant Conservation Alliance
- Southeast Exotic Pest Plant Council Invasive Plant Manual - SE-EPCC
- Nonnative Invasive Plants of Southern Forests - USDA Forest Service
- Fact Sheet - Pennsylvania Dept. of Conservation and Natural Resources

Representative Images

17 Images

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