EDDMapS

find · map · track

Community Science thru Shared EDDMapS platform – the power of partnerships

Center for Invasive Species and Ecosystem Health
UNIVERSITY OF GEORGIA

Who am I?

- B.S and M.S. in Computer Science
- Started with UGA in 1995, full time in 1999
- Public Service Faculty – no teaching or traditional research
- Developed infrastructure behind Bugwood Images and EDDMapS
- Past Chair of SE-EPPC, NA-IPC, NAISN and ISAC
- Current Chair of NAISMA
- 300+ presentations and 60+ journal articles & outreach publications
- Appointed as Center Director in 2019

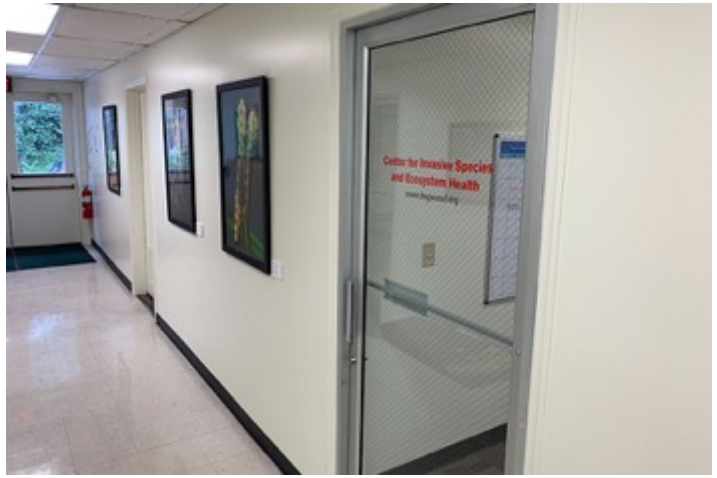
UNIVERSITY OF
GEORGIA

Center for Invasive Species
and Ecosystem Health

www.bugwood.org

Center for Invasive Species and Ecosystem Health
UNIVERSITY OF GEORGIA

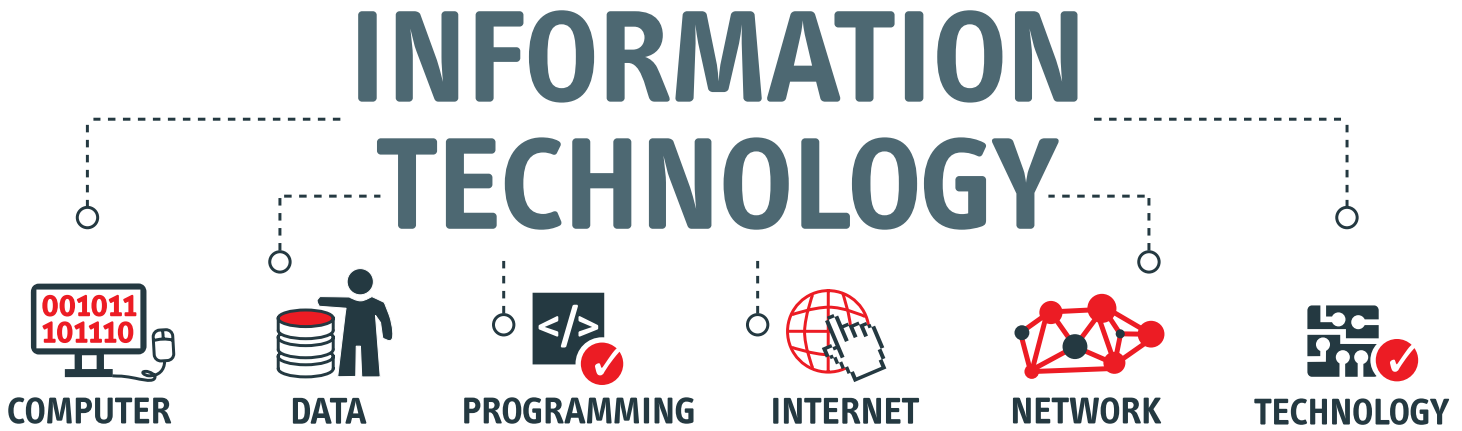
Center?

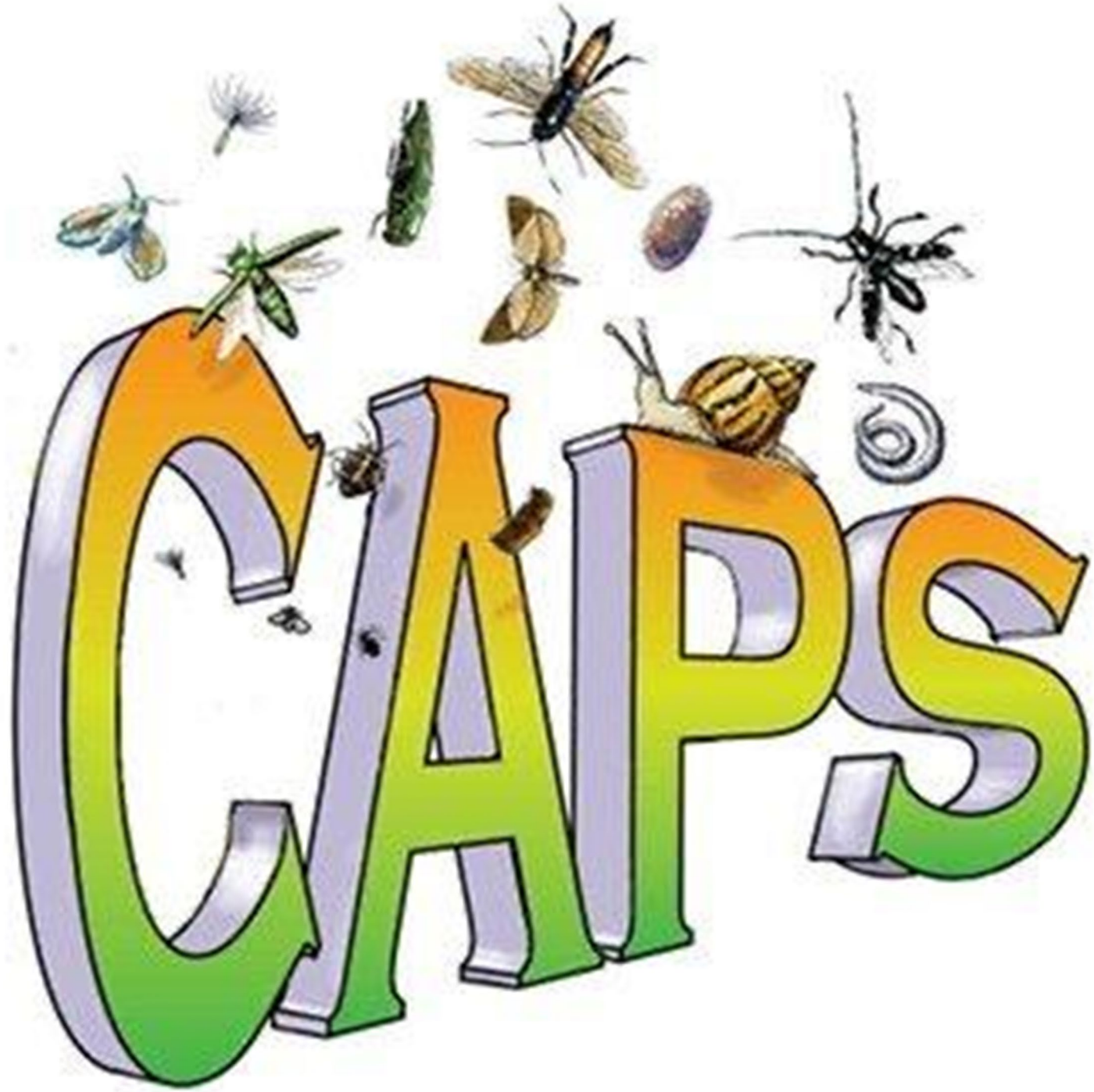


- Partnership between College of Agricultural and Environmental Sciences and School of Forestry and Natural Resources
- Focus on Invasive Species, Integrated Pest Management and Forest Health
- Use Information Technology to provide information to scientists, professionals & the public
- Build partnerships across agencies, organizations, disciplines and borders

What We Do

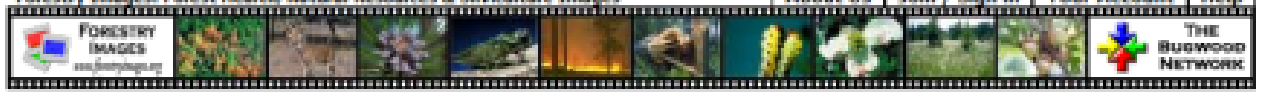
Center for Invasive Species and Ecosystem Health
UNIVERSITY OF GEORGIA




CAPS


THIS SIDE TOWARDS SCREEN
PROCESSED BY KODAK
Kodak
Kodachrome


Forest Pests
of North America
Integrated Pest Management
Photo CD Series
This product was developed
using Eastman Kodak's
Photo CD technology
Kodak



General Info

What is Forestry Images?
Contribute
Cooperators
Photographers
Statistics
Contact Us

Membership Info

Join Now!
Sign in
Membership Benefits
Help

Related Sites

The Bugwood Network
Forest Pests
IPM Images
Invasive and Exotic Species
Insect Images

Forestry Images

The Source for Forest Health, Natural Resources & Silviculture Images.
A joint project of the University of Georgia and the USDA Forest Service.
Project Coordinators: Keith Douce, David Moorhead & Charles Bargeron.

Image Categories

Forest Pests

Insects
| Bark Beetles | Foliage Feeding | Wood Boring | Invasive |

Diseases
| Foliage Diseases | Root & Butt Diseases |

Other Damage Agents
| Invasive Plants | Parasitic Plants | Human | Animal |

Trees, Plants, and Stand Types

Trees
| Conifers | Hardwoods | Mixed Stands |

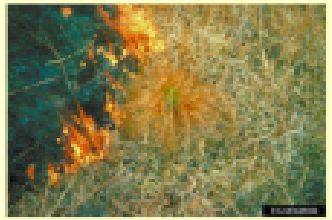
Understory and Rangeland Plants
| Forbs | Shrubs | Vines | Grasses |

Silvicultural Practices
| Fire | Harvest Operations | Natural Regeneration |

Wildlife
| Mammals | Birds | Reptiles & Amphibians |

People, Places and Scenes
| North America | Africa | Miscellaneous |

Random Image



brown spot needle blight of pine
Photo by USDA Forest Service Archives

Statistics

24903 Images
834 Photographers
4569 Subjects

Features

Invasive Plants CD-ROM
Nursery Management
4-H/FFA Field Day
Bark Beetles CD-ROM

Forestry Images is a joint project of The Bugwood Network and USDA Forest Service.
The University of Georgia - Warnell School of Forest Resources and
College of Agricultural and Environmental Sciences - Dept. of Entomology

Browse By

- Nodes
- Photographers
- Organization
- Location
- Hosted Archives
- Selected Image Sets
- Image Series

General Info

- What is Forestry Images?
- Membership Benefits
- Frequently Asked Questions
- Finding Images
- Using Images
- Adding Images
- Statistics

Image Categories

Forest Pests

Insects

| Bark Beetles | Foliage Feeding | Wood Boring | Invasive |

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| Forbs | Shrubs | Vines | Grasses |

Silvicultural Practices

| Fire | Harvest Operations | Natural Regeneration |

Urban Forestry

| General | Tree Defects | Urban Tree Care |

Wildlife

| Mammals | Birds | Reptiles & Amphibians |

Login

bugwood

•••••••

Remember Me

Login

Reset Password

Not a member? Sign up Free!

Random Image

fire

Photo by USDA Forest Service - Region 2 - Rocky Mountain Region , USDA Forest Service

Statistics

Invasive.org

The Source for Information and Images of Invasive & Exotic Species

A joint project of The University of Georgia's Bugwood Network, USDA Forest Service and USDA APHIS PPQ.

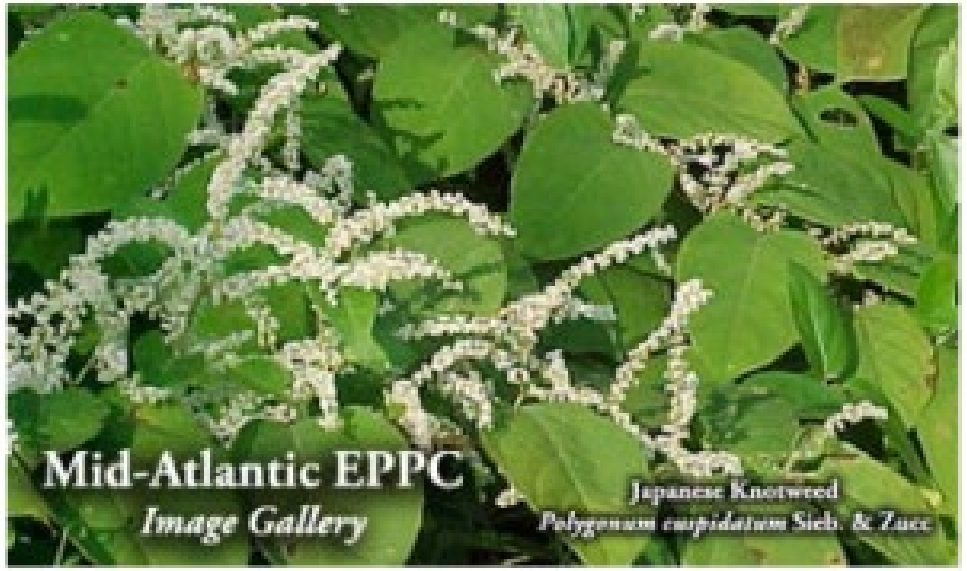
Information and Images

- Insects
- Weeds
- Diseases
- Other Invasives
- Biocontrol Agents

Other Features

- USDA Confirms Soybean Rust in U.S.
- Regional Tropical Soda Apple Task Force
- Sudden Oak Death Update for Georgia
- Mid-Atlantic EPPC Plant List

Featured Collection



Publications

- Biological Control of Hemlock Woolly Adelgid
- Invasive Plants of the Eastern United States: Identification and Control Web Site

Related Links

- Forestry Images
- Exotic Forest Pest Information System
- Global Pest and Disease Database

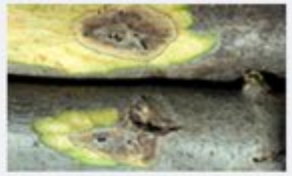
Invasive and Exotic Species of North America

any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem; and whose introduction does or is likely to cause economic or environmental harm or harm to human health.

Plants

Insects

Pathogens



Other Species

Asian Giant Hornet

Asian giant (or Japanese) hornet, *Vespa mandarinia*, was discovered in northwest Washington state on 8 December 2019. This discovery followed an earlier detection on Vancouver Island, British Columbia in September 2019. A flurry of press coverage has created a surge of interest in these hornets

More about this invasive

EDDMapS Pro

EDDMapS Pro is an app designed for

Biological Control of Weeds: A World Catalogue of Agents and Their Target Weeds

Statistics

65,533 Images of

3,453 Invasive Species

News & Site Updates

Check out our new EDDMapS maps website!

Tallowtree Spread Increased by Hurricanes

Cooperative Extension Advisor needed in California, serving Monterey, San Benito, and San Cruz Counties

New Wood Boring Beetle Attacks Tree-of-heaven

Minnesota Department of Agriculture is looking for an Entomologist!

More News from the Bugwood Blog

Links

A Field Guide for the Identification of

Invasive Plants in Southern Forests

United States Department of Agriculture
Forest Service
Southern Research Station
General Technical Report

James H. Miller, Erwin B. Chambliss, and Nancy J. Loewenstein

Forest Health
Technology Enterprise Team

The University of Georgia

TECHNOLOGY
TRANSFER

Invasive Species

INVASIVE PLANTS OF THE EASTERN UNITED STATES

IDENTIFICATION AND CONTROL

Technical Coordinators:
Charles T. Bargeron, David J. Moorhead, G. Keith Douce, Richard C. Reardon and Arthur E. Miller

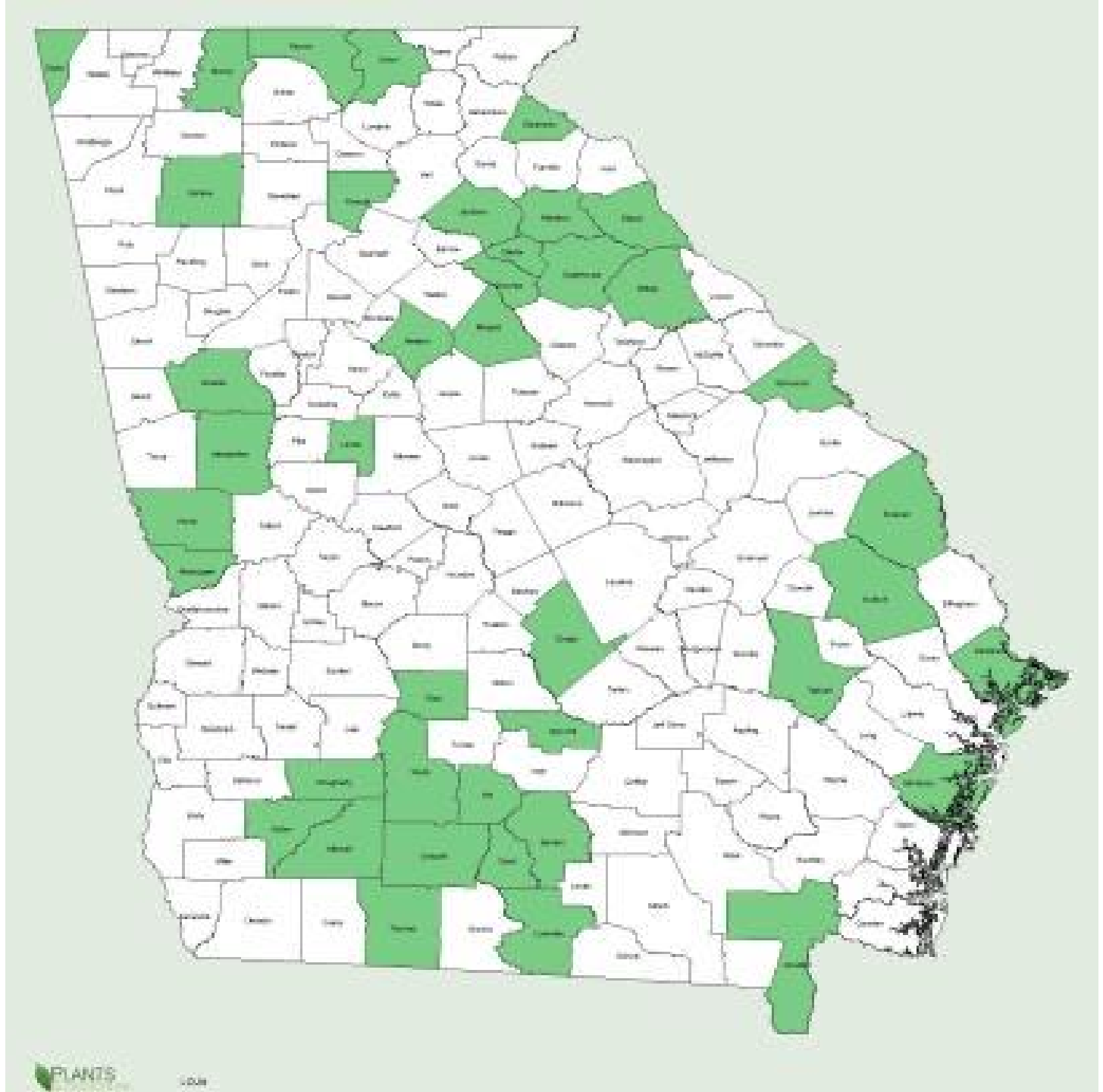
WWW.INVASIVE.ORG

United States Department of Agriculture
Forest Service

The University of Georgia
The Bugwood Network
Warnell School of Forest Resources
College of Agricultural & Environmental Sciences

United States Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection and Quarantine

FHTET-2003-08
November 2003



Invasive Plant Atlas of New England

IPANE

The Invasive Plant Atlas of New England's (IPANE) mission is to create a comprehensive web-accessible database of invasive and potentially invasive plants in New England that will be continually updated by a network of professionals and trained volunteers. The database will facilitate education and research that will lead to a greater understanding of invasive plant ecology and support informed conservation management. An important focus of the project is the early detection of, and rapid response to, new invasions.

:: Invasive Alerts ::

:: Early Detection

:: IPANE Species

:: Data & Maps

New England Wild Flower Society

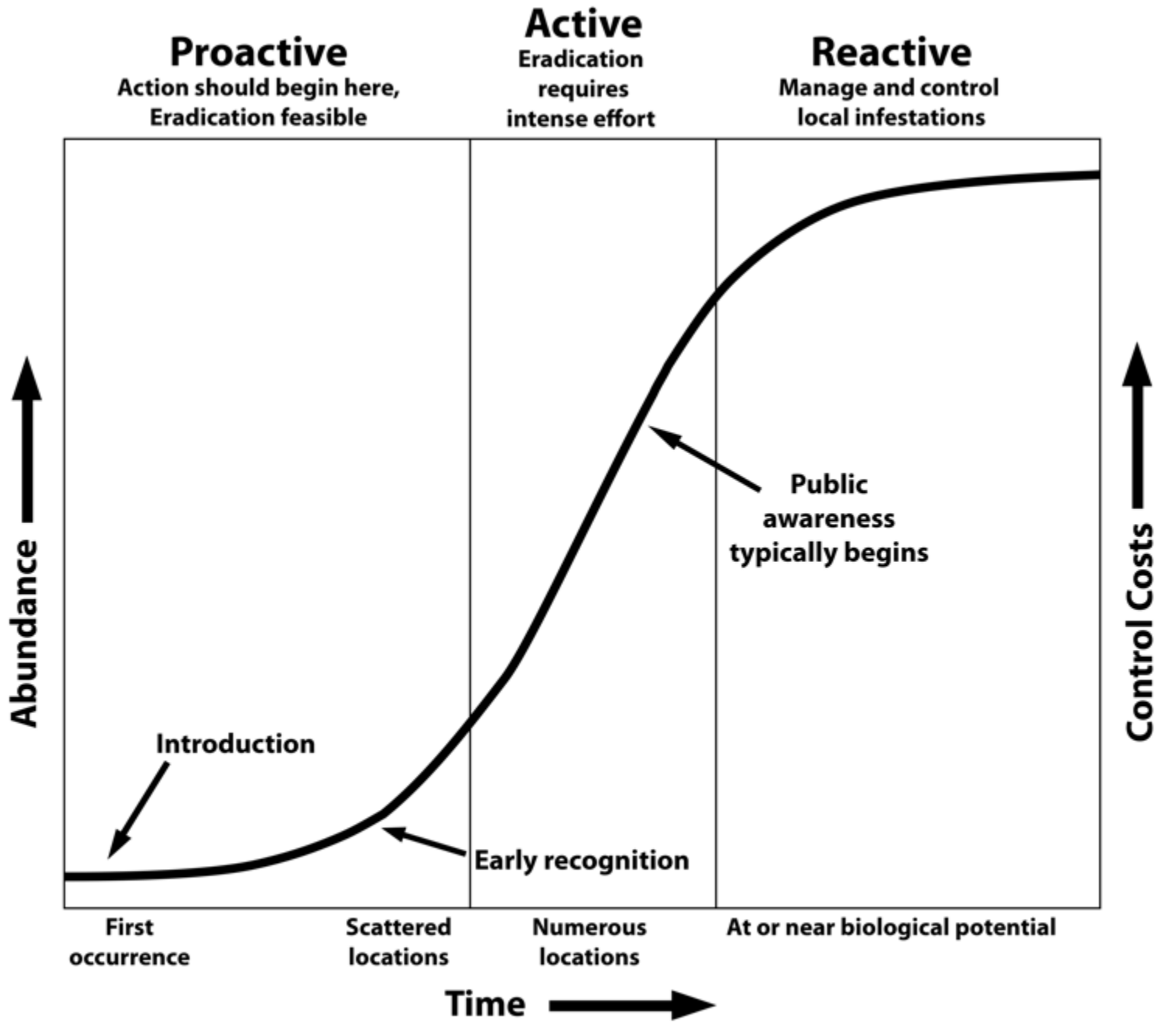
University of Connecticut

::Site Map
::Contact Us
::Report a Sighting

Citation Information:
Mehrhoff, L. J., J. A. Silander, Jr., S. A. Leicht, E. S. Mosher and N. M. Tabak. 2003.
IPANE: Invasive Plant Atlas of New England. Department of Ecology & Evolutionary Biology, University of Connecticut, Storrs, CT, USA.
URL: http://www.ipane.org

North American Invasive Plant Mapping Standards

Approved by:
North American Weed Management Association
May 7, 2002



Phases of Invasive Species Invasion and Control

Everglades CISMA
Cooperative Invasive Species Management Area

Home | About | Contact

ABOUT CISMA | DISTRIBUTION MAPS | REPORT SIGHTINGS | SPECIES INFORMATION | NEWS | PARTNERS | TOOLS

Report a Sighting of an Invasive ...

- Plant
- Reptile/Amphibian
- Fish
- Bird
- Mammal
- Invertebrate

Learn more about Invasive ...

- Plants
- Reptiles/Amphibians
- Fish
- Birds
- Mammals

Everglades Cooperative Invasive Species Management Area

Everglades restoration poses new challenges for invasive species management and has created a need for a more defined commitment to cooperation among agencies and or of policy and management.

Everglades restoration will be enhanced by the establishment of a formal fra management cooperation among agencies and other coordinating bodies su Ecosystem Restoration Task Force, Working Group and Science Coordinatio

What's New

- 2008 Everglades Invasive Species Summit - Preliminary Agenda
- Digital Aerial Sketchmapping
- Recent Invasive Species Reports
- Partner Tools - Blog, List Serv, File Sharing and Image Upload

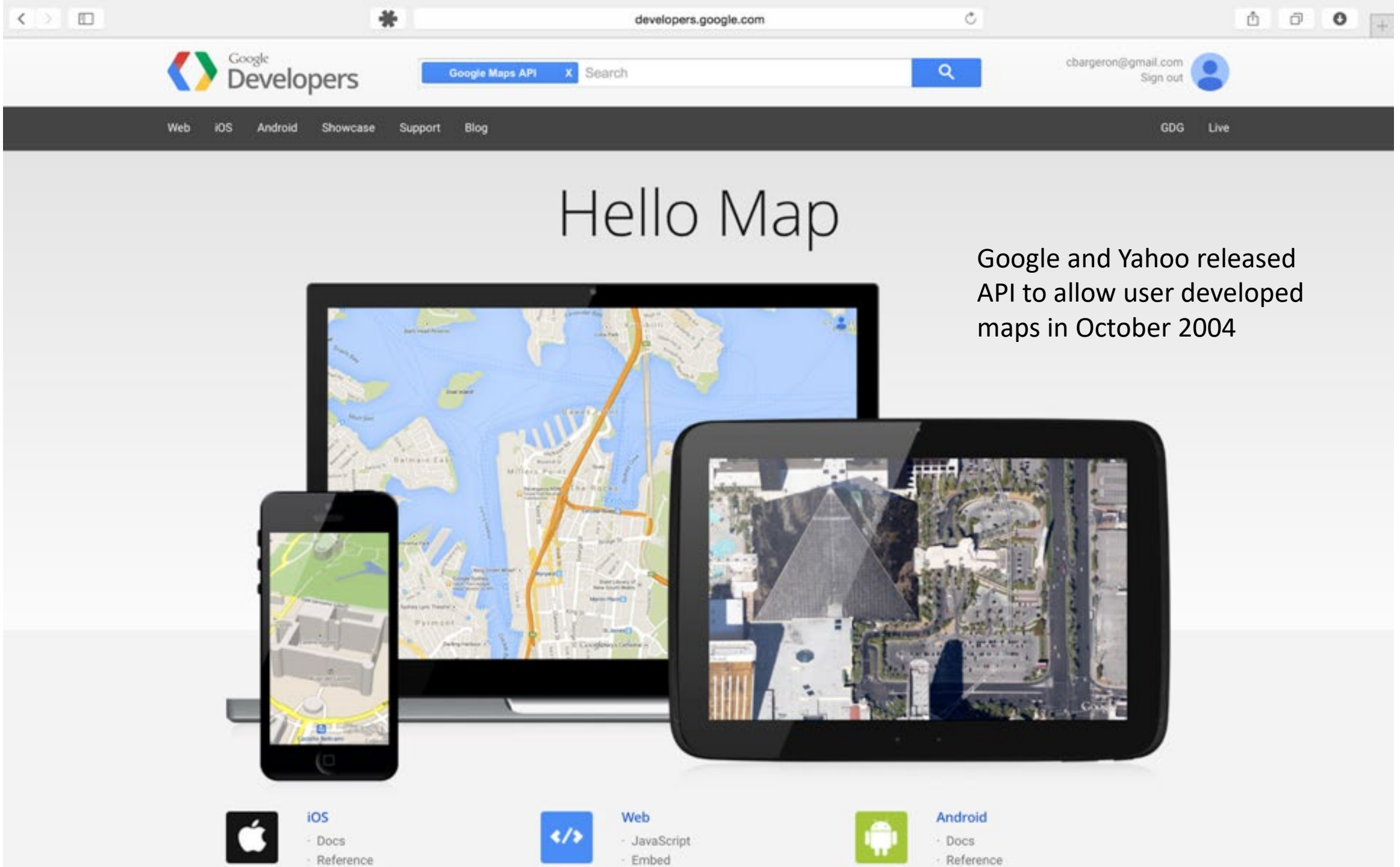
CISMA
Everglades Cooperative Invasive Species Management Area

Chris Evans

M.S. Forest Biology, emphasis Ecology – Iowa State University 12/2004

Thesis title: "Invasive species in Iowa's woodlands: Using volunteers and remote sensing as tools for research"

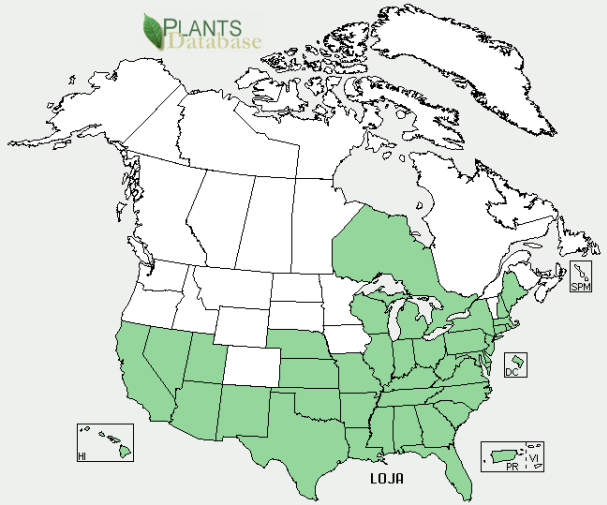
used volunteers and experts to survey and map four invasive plant species – Garlic mustard, bush honeysuckle, common buckthorn, and multiflora rose.

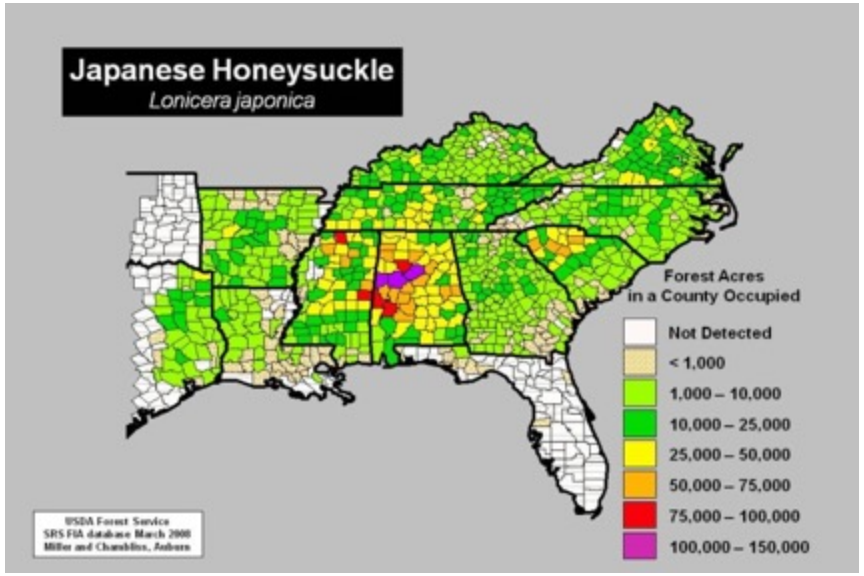


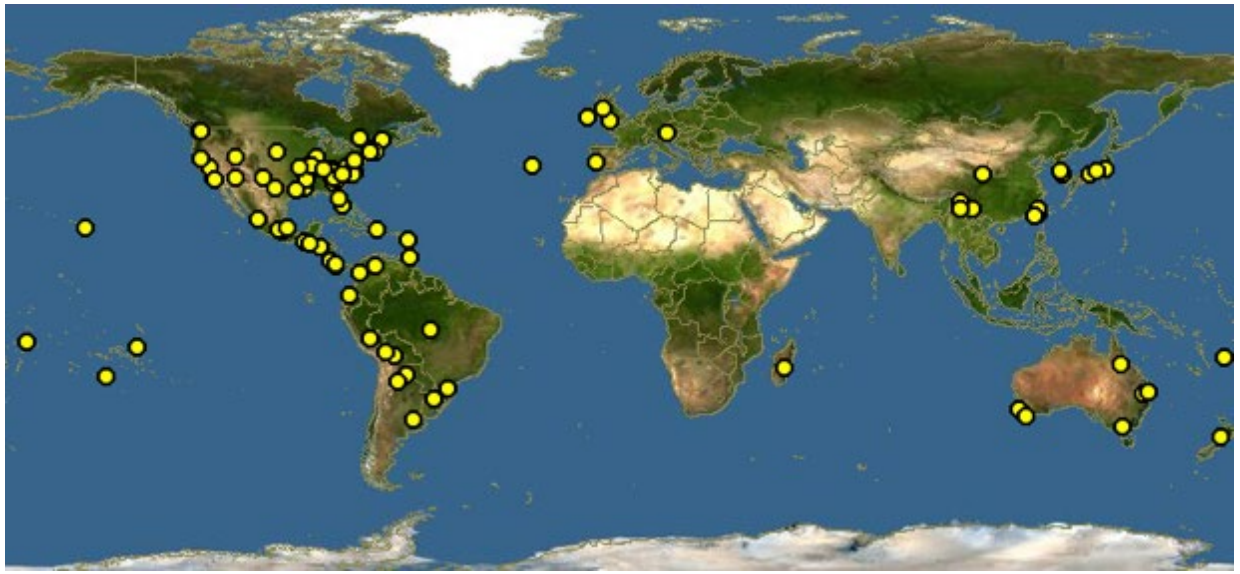
Google and Yahoo released API to allow user developed maps in October 2004

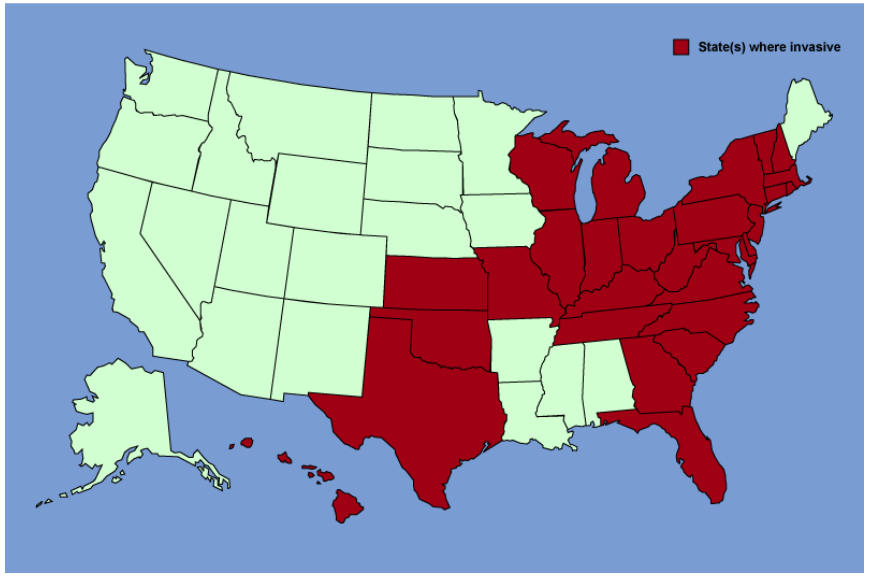
Lots of Maps

Center for Invasive Species and Ecosystem Health
UNIVERSITY OF GEORGIA









WILDLIFE OBSERVATION REPORT

Species: Python

Observed By: Jim Massey

Date (Month, Day, Year): 10/24/79

Time (a.m., p.m.): 12:30 am

Weather:

Location (As specific as possible): just past Everglades Safari Tamiami Trail

Observation: (Behavior, Number, Sketch, Map, etc.)
(Use reverse if necessary)

size- 11'9" ~40 lbs
Verified by Game + Fish Commission -
Road kill - skin at Jim Massey's - not
an escaped snake from Everglades
Safari

BE ACCURATE - DO NOT GUESS

Please send to: Research Division, Everglades National Park,
P.O. Box 279, Homestead, FL 33030

Your life in

your pocket

The ultimate

digital device

“What’s Invasive” is meant to engage people with the natural world. “Smart phones are making it much easier to collect data and upload with the push of a button; it’s kind of revolutionary,” said principal investigator Eric Graham, Center for Embedded Networked Sensing, UCLA.

May 14, 2010

Eric A. Graham
Central Washington University

What's Invasive! Community Data Collection

Home | Top Invasives | Data & Photos | Maps | Help & About | News & Events | Login | Register

*** New Automatic Data Transfer Options + KML ***

Invasive species are a threat to native plants and animals, crowding natives, consuming food sources, or acting as fire hazards.

We have found that having groups such as schools run short-term "campaigns" is highly effective for locating invasive species.

Use your **Android** or **iPhone** to help us locate invasive species!

Step 1. Sign up.
Step 2. Get the iPhone app or the Android app.
Step 3. Start collecting!

Find out how you can set up your own park so people can help in your area!

Select a Participating Park:

Alachua County, FL | Go there!

Or set up your own park!

Interesting Research Items

Effects of Invasives Persist Even After Removal - Bennett and colleagues investigated the effects of four primary mechanisms that potentially contribute to the success of invasive velvetgrass...

There are currently 2007 registered users who have contributed 8998 observations of invasive weeds in 53 active parks!

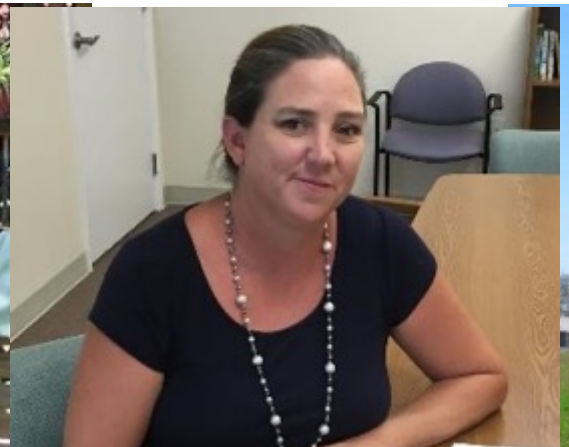
UCLA | CENS | EDDMapS Early Detection & Distribution Mapping System

Everglades CISMA / EDDMapS / IveGot1 Meeting
March 12, 2010

Participants:
Skip Snow, NPS
Bill Thomas, USFWS
Larry Conner, FWC
Monica McGarrity, UF
John Morton, USACE
Allison Higgins, TNC
Erin Meyers, USFWS
Kris Serbesoff-King, TNC
Larry Perez, NPS
Chuck Bargeron, UGA
David Moorhead, UGA

Key Points:

- Focus on easy reporting for the public
- Data sharing between FWC and EDDMapS
- Make 1-888-Ivegot1 state wide
- www.ivegot1.org
- “There shouldn’t be an app for this, but there is… Invasive Species.”



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.

ANDROID APP ON Google play

Available on the App Store

Funded by

NATIONAL PARK SERVICE

57,431 Downloads
6,850 Reports

USA TODAY

Subscribe

Anaconda found swimming St. Johns River in North Florida

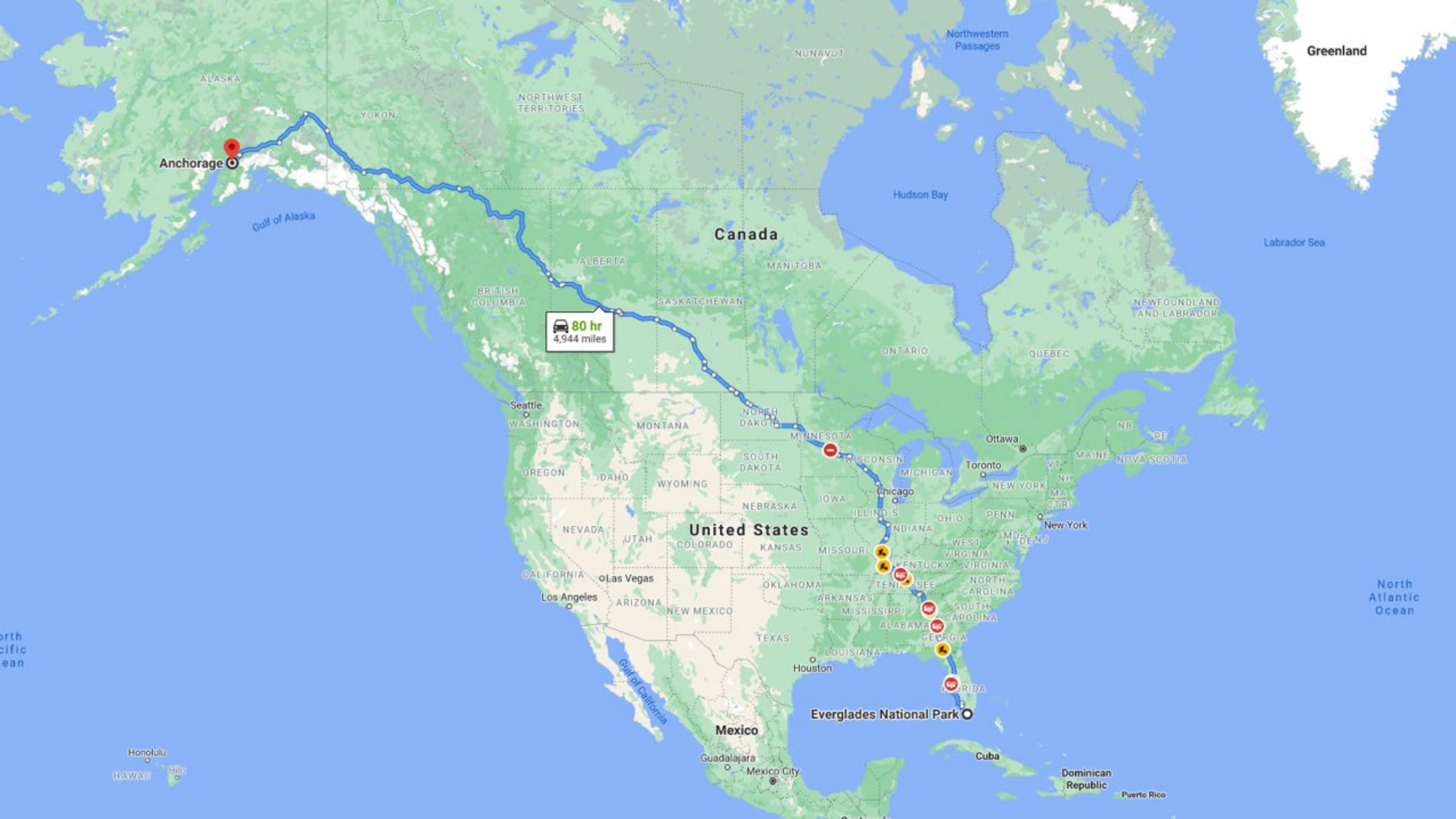
10 NEWS STAFF | WTSP | 12:08 pm EST
December 2, 2015

A boater on the St. Johns River spotted an interesting, nonnative visitor while he was fishing near the Brevard/Orange County line.

He quickly called The FWC and officers responded to to retrieve the 9+ foot green anaconda. Thanks to the quick reporting by the caller, the officers were able to euthanize the nonnative constrictor before it could escape into the water.

This incident shows how important it is to report sightings of nonnative wildlife including constrictor snakes like this one. If you see nonnative fish and wildlife please report them to our Invasive Species Hotline at 1-888-IveGot1 (**1-888-483-4861**), online at **IVEGOT1.org** or by using the free smart phone app IVEGOT1.

If you would like to provide hands-on help to combat nonnatives in Florida, register for **the Python Challenge.**

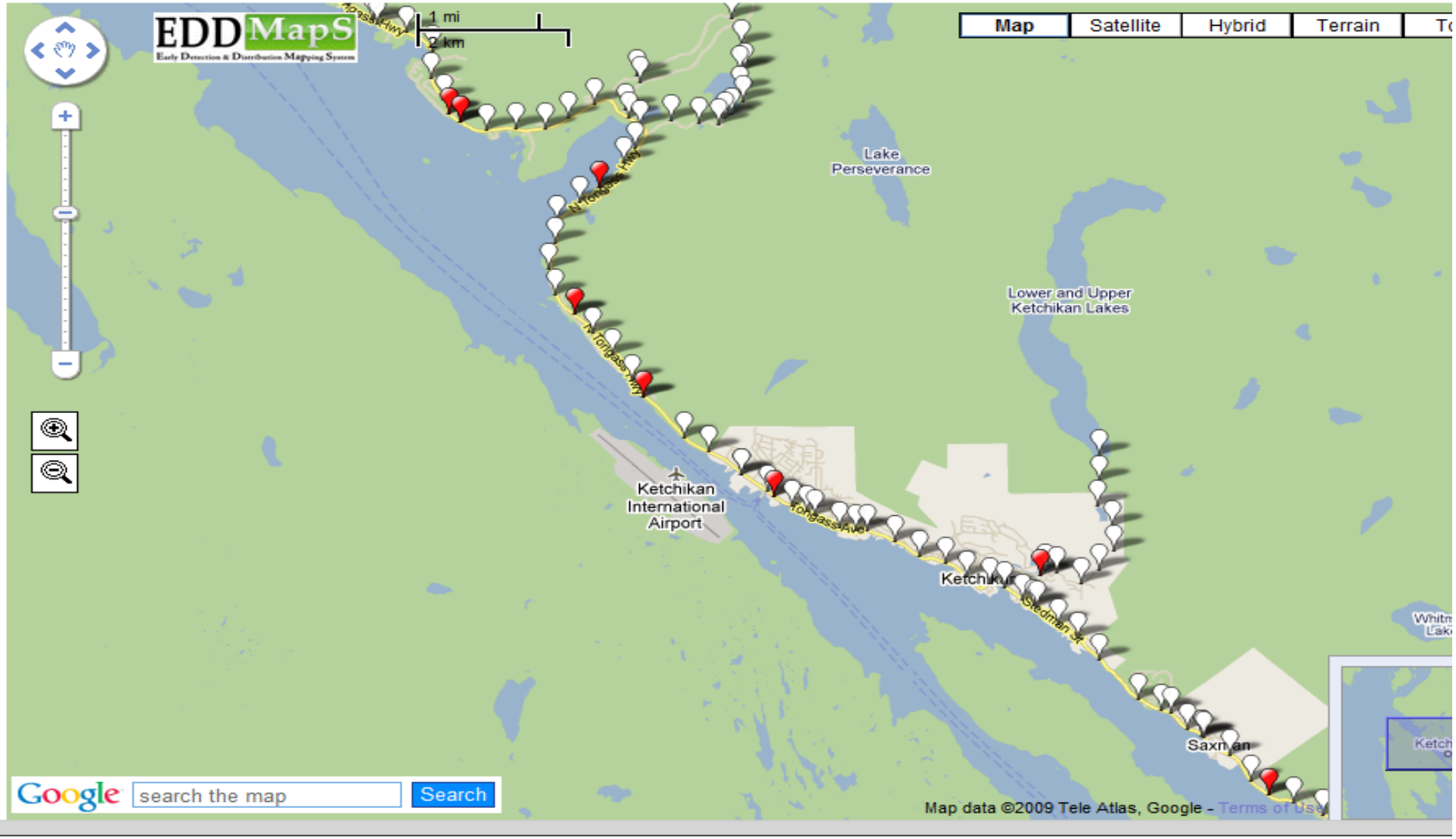

Anchorage
80 hr
4,944 miles
Everglades National Park
Canada
United States
Mexico
Greenland
Northwestern Passages
Hudson Bay
Labrador Sea
North Atlantic Ocean
Gulf of Alaska
Gulf of California
ALASKA
YUKON
NORTHWEST TERRITORIES
NUNAVUT
ALBERTA
BRITISH COLUMBIA
SASKATCHEWAN
MANITOBA
ONTARIO
QUEBEC
NEWFOUNDLAND AND LABRADOR
Seattle
WASHINGTON
OREGON
IDAHO
MONTANA
WYOMING
NORTH DAKOTA
SOUTH DAKOTA
MINNESOTA
WISCONSIN
MICHIGAN
Ottawa
Toronto
Chicago
NEW YORK
New York
NEBRASKA
IOWA
ILLINOIS
INDIANA
OHIO
PENN
NEVADA
UTAH
COLORADO
KANSAS
MISSOURI
WEST VIRGINIA
KENTUCKY
VIRGINIA
CALIFORNIA
Las Vegas
Los Angeles
ARIZONA
NEW MEXICO
OKLAHOMA
TENNESSEE
NORTH CAROLINA
ARKANSAS
MISSISSIPPI
SOUTH CAROLINA
ALABAMA
GEORGIA
TEXAS
LOUISIANA
Houston
FLORIDA
Honolulu
HAWAII
Hilo
Guadalajara
Mexico City
Cuba
Dominican Republic
Puerto Rico
NB
PE
MAINE
NOVA SCOTIA
VT
NH
MA
CT
RI
MD
DEL

Japanese knotweed

Polygonum cuspidatum Siebold & Zucc.

USDA PLANTS Symbol: P
Invasive Plant

Positive Negative



FOREST SERVICE
US
DEPARTMENT OF AGRICULTURE

The University of Georgia
Center for Invasive Species and Ecosystem Health

Developed by The University of Georgia - Center for Invasive Species and Ecosystem Health.

MISSOURI RIVER WATERSHED COALITION

Maintaining productive, biodiverse riparian ecosystems that provide quality water, habitat, recreation, and power to meet the economic and ecological needs of the Missouri River Watershed region.

From its headwaters in the northern Rockies, the Missouri River flows through the Upper Midwest, then southeast to join the Mississippi River, fed by a watershed that covers 500,000 square miles over 10 states.

The rivers, streams, reservoirs, and ponds of the watershed support agriculture, recreation, tourism, wildlife habitat, irrigation, drinking water, power generation and livestock production.

The Montana, North Dakota, South Dakota, Wyoming, Nebraska and Colorado departments of agriculture signed a Memorandum of Agreement in 2006 and an MOA Addendum in 2008 to coordinate the management of

Executive Committee

- President – Andrew Canham, Mid Dakota Vegetation
- Colorado – Kelly Uhing, Colorado Dept. of Agriculture
- Montana – Dave Burch, Montana Dept. of Agriculture
- Nebraska – Mitch Coffin, Nebraska Dept. of Agriculture
- North Dakota – Rachel Seifert-Spilde, North Dakota Dept. of Agriculture
- South Dakota – Ron Moehring, South Dakota Dept. of Agriculture
- Wyoming – Slade Franklin, Wyoming Dept. of Agriculture
- Coordinator – Liz Galli-Noble, Center for Invasive Plant Management

Meetings

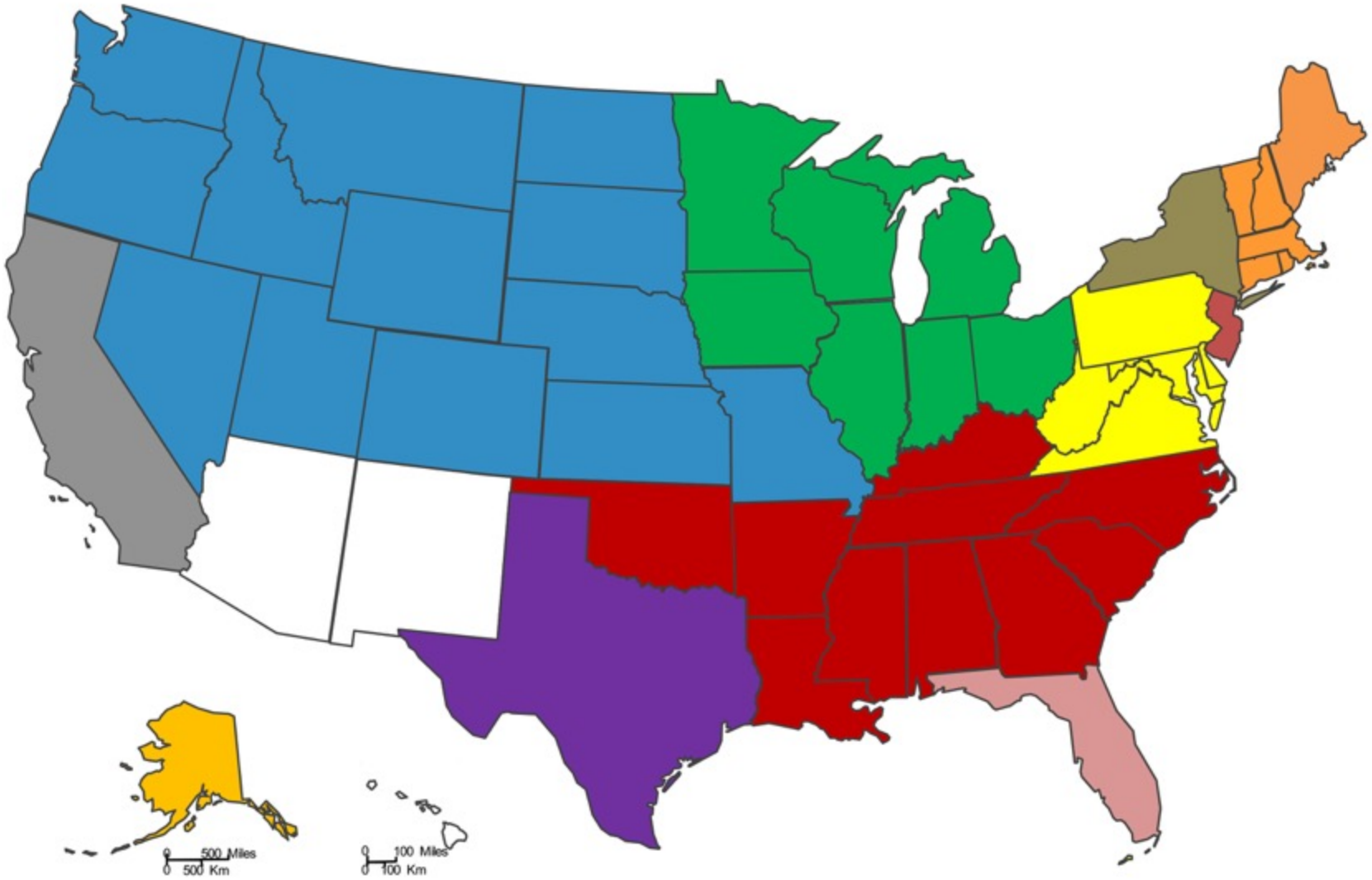
- The Fall 2009 MRWC meeting was held on **September 21 in Kearney, Nebraska**.

Meeting Minutes

Documents

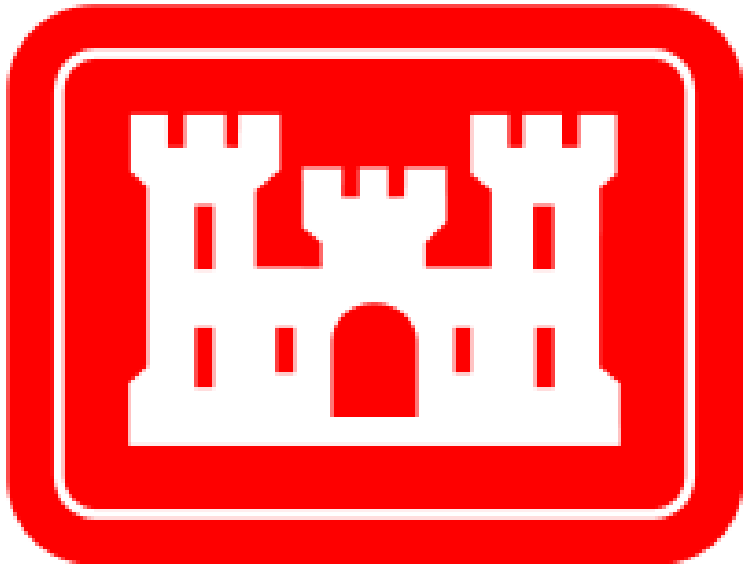
NATIONAL PARK SERVICE

State/Regional EDRR Networks



- EDDMapS West
- Great Lakes Early Detection Network / Midwest Invasive Species Information Network
- Texas Invaders
- Southeast Early Detection Network
- Mid-Atlantic Early Detection Network
- IveGot1 / FL iMapInvasives
- NY iMapInvasives
- Invasive Plant Atlas of New England
- Cal-IPC/Calflora
- Alaska Exotic Plants Information Clearinghouse
- NJ Invasive Species Strike Team

Not Shown:
USGS Nonindigenous Aquatic Species Database



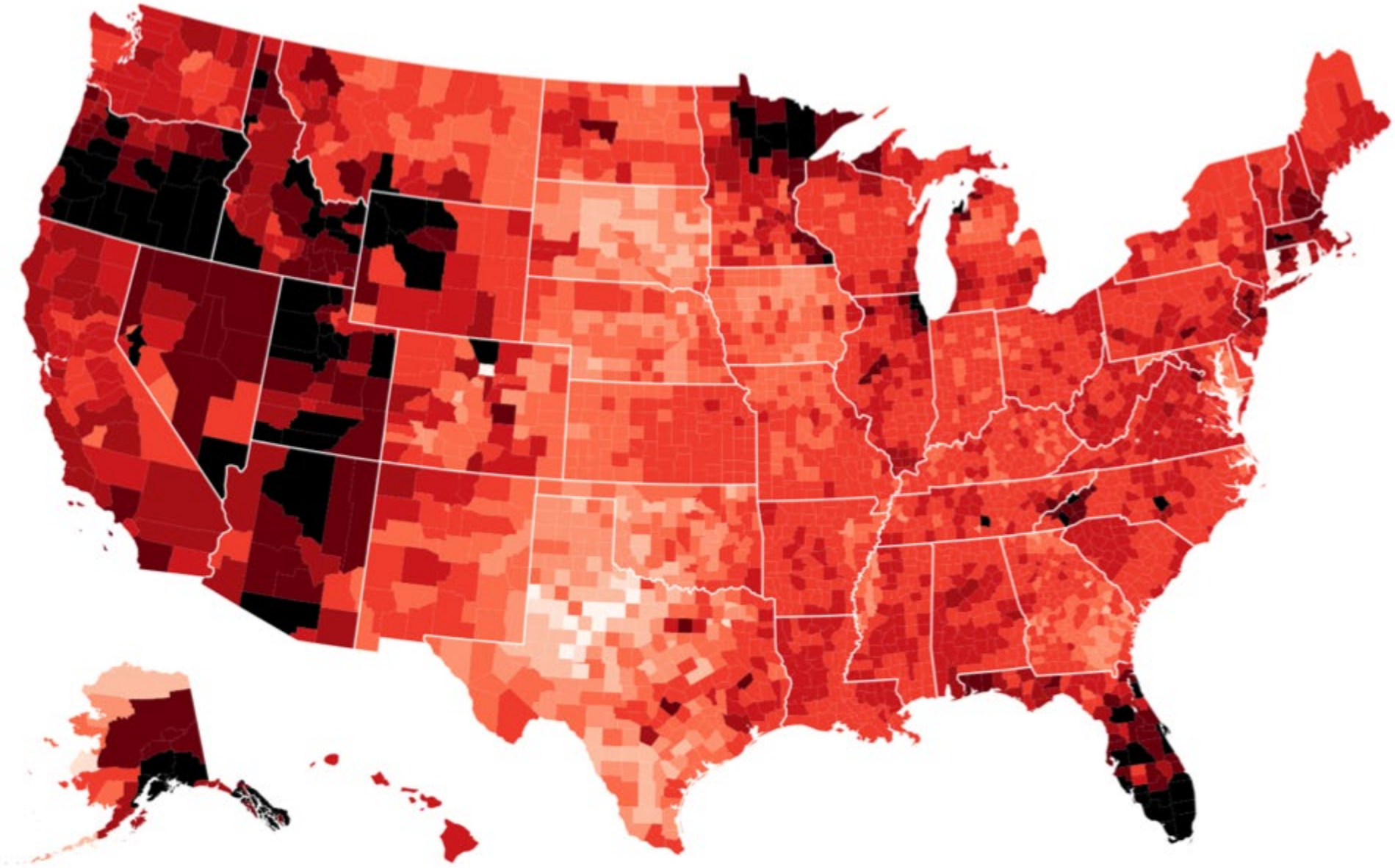

U.S.
FISH & WILDLIFE
SERVICE
DEPARTMENT OF THE INTERIOR


APHIS


NIFA


The Nature Conservancy
Protecting nature. Preserving life.®


ONTARIO FEDERATION
OF ANGLERS AND HUNTERS



FOREST SERVICE
US
DEPARTMENT OF AGRICULTURE

UWSA

UTAH WEED SUPERVISOR ASSOCIATION

EDDMapS

.pro.

MONTANA DEPARTMENT OF AGRICULTURE ESTABLISHED 1893





Positive

Treated

Negative

Eradicated

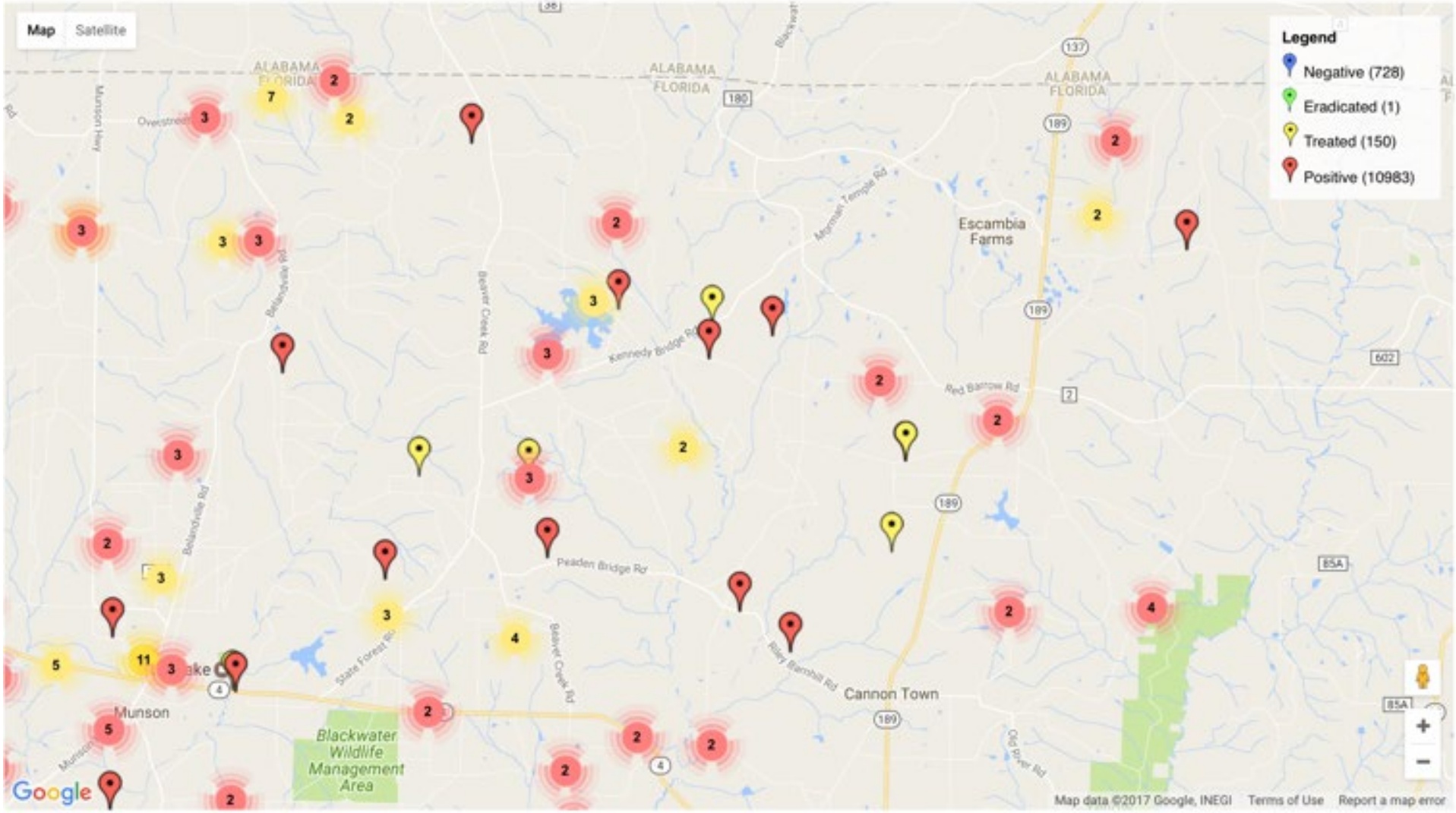
Japanese honeysuckle
Lonicera japonica Thunb.

USDA PLANTS Symbol:LOJA
Invasive Plant Atlas
Species Information

States | Counties | **Points** | List

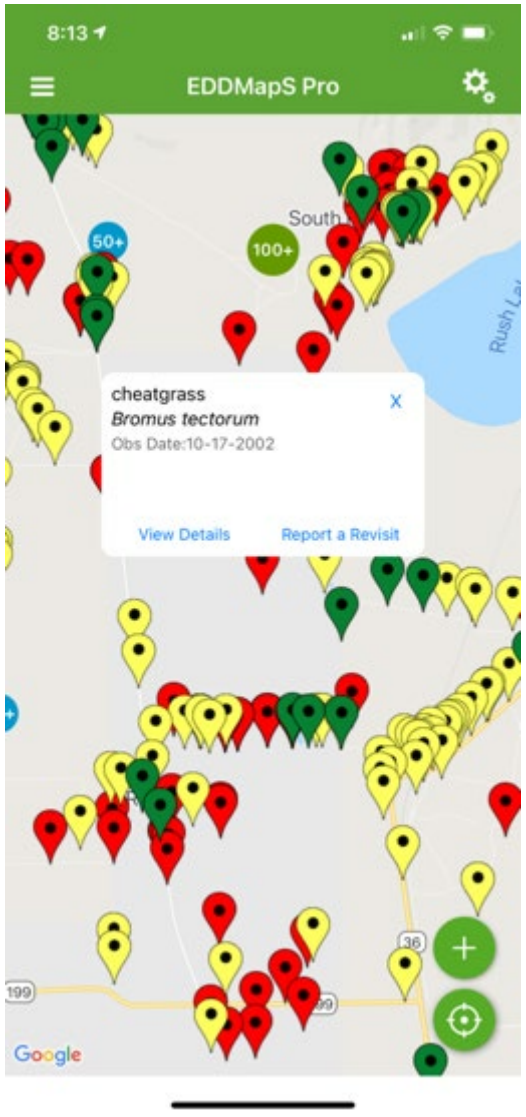
CSV | KML | GPX | Shapefile

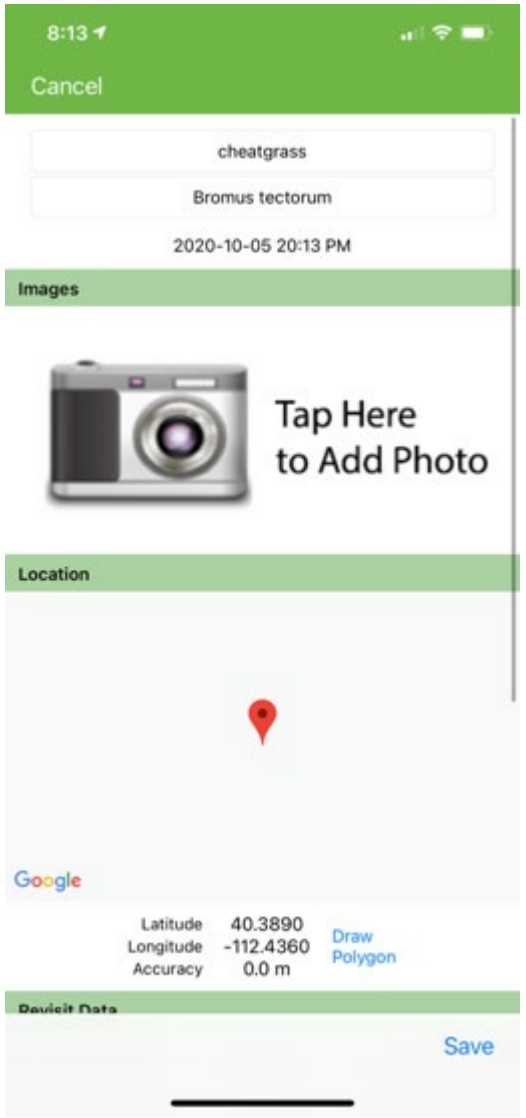
Zoom to My Location | Share | Download | Flag | Fullscreen

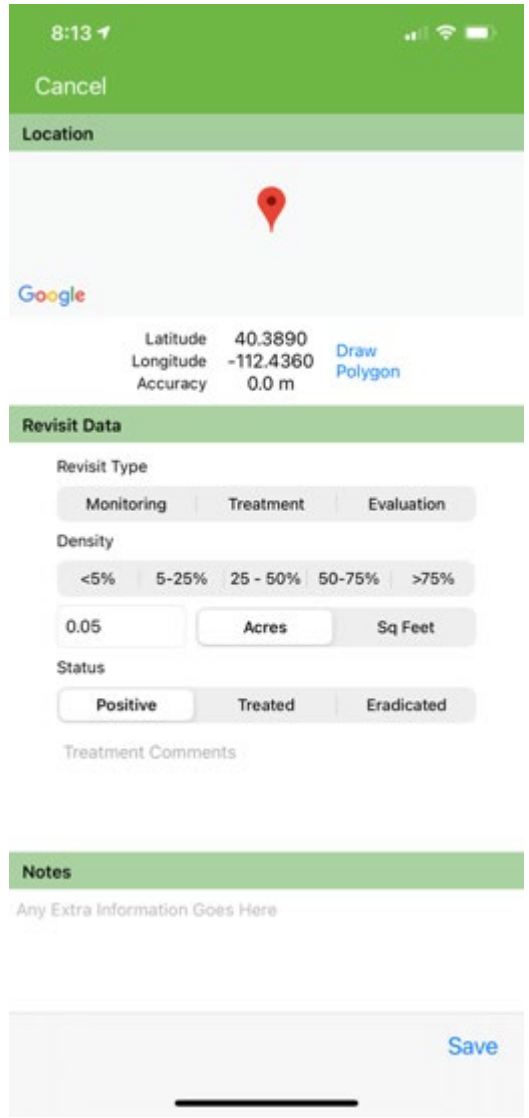


Revisits

Center for Invasive Species and Ecosystem Health
UNIVERSITY OF GEORGIA







ipcconnect

IPC Connect provides access to information and resources from past meetings and events.
You can also log in and share files for projects.

Welcome, Lee Patrick | Logout

Home » admin

Admin Panel

Chemicals
Methods
Equipment
Monthly Hours
Sitesheets
Legacy Sitesheets
Polygons
KML
Chemical Reports
Legacy Mgmt Plans
Management Plans
Pesticide Users
SWOT Analysis Files
Image Galleries
Uploads
Manuals

Project management

- Site Management
- User Management
- Assign Users to Sites
- Master Site/Users List
- E-Mail Project Users
- Project Species List Management
- User Species List Management
- Contracts

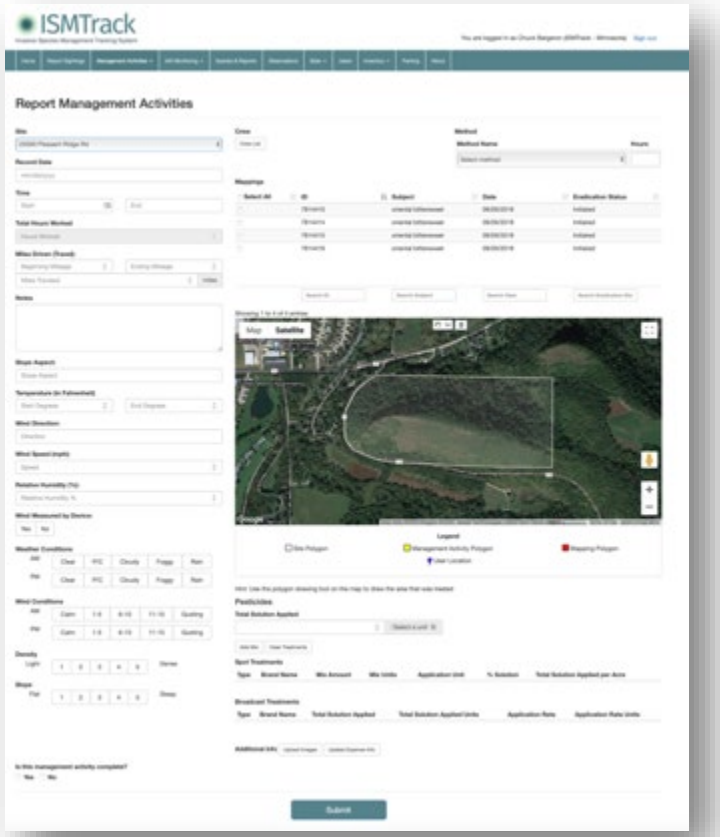
Project forms

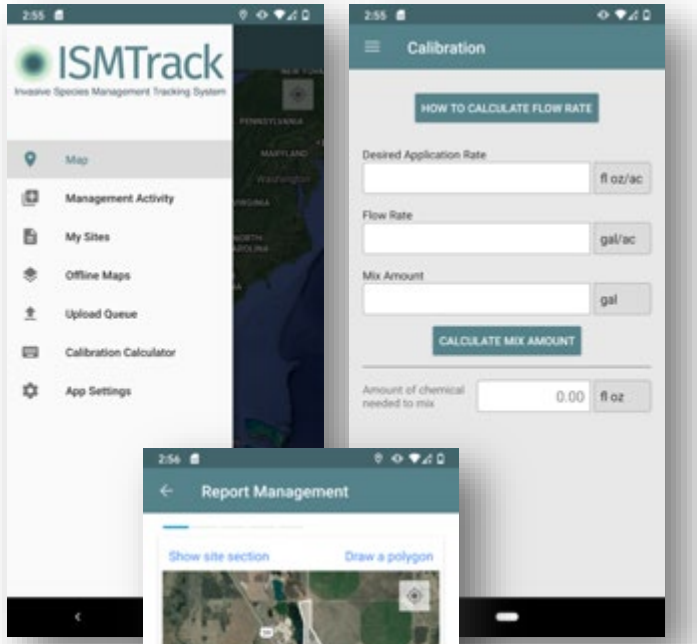
- Create a Workorder
- Edit Workorder
- Your Work Orders
- Create a Followup Workorder

ISMTrack

Invasive Species Management Tracking System

Center for Invasive Species and Ecosystem Health
UNIVERSITY OF GEORGIA





Collaborate
- EDDMapS integration
- cross-organizational communication
- statewide data sharing

Access
- mobile-friendly design
- interactive, location-based mapping

Record
- labor hours
- work accomplished
- treatment methods & details

Monitor
- site-specific management activity
- track infestation changes over time

Manage Data
- query and download data
- summarize management activities and outcomes

DEPARTMENT OF AGRICULTURE
UNIVERSITY OF MINNESOTA EXTENSION
Extension UNIVERSITY OF WISCONSIN-MADISON
IPAW
DEPARTMENT OF NATURAL RESOURCES
MINNESOTA DEPARTMENT OF TRANSPORTATION
ENVIRONMENT AND NATURAL RESOURCES TRUST FUND

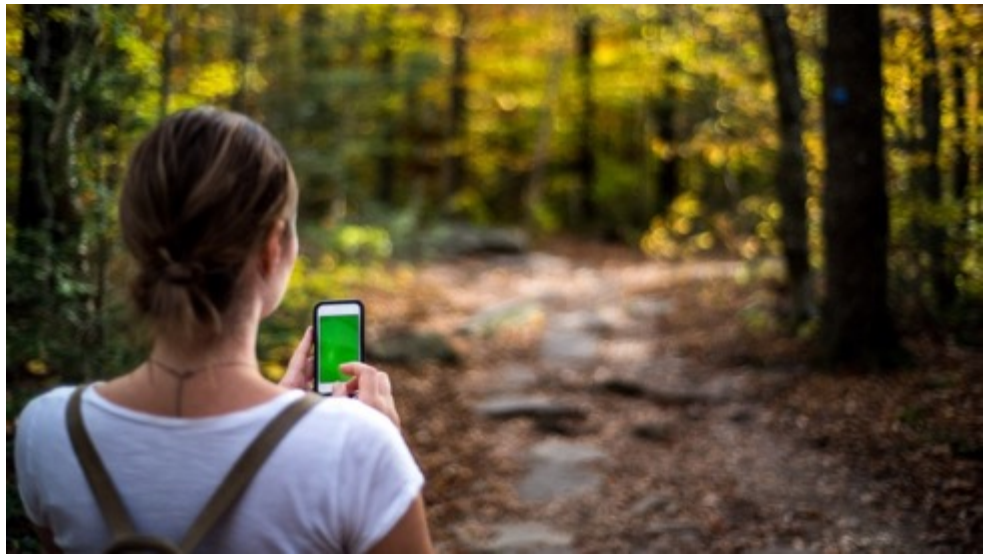
Center for Invasive Species and Ecosystem Health
UNIVERSITY OF GEORGIA

Wild Spotter

Center for Invasive Species and Ecosystem Health
UNIVERSITY OF GEORGIA

WILD SPOTTER™

Mapping Invasives in America's Wild Places™



Join

the Network of Citizen Scientists

Download

the Free Mobile App

Identify

the Invasive Plants, Pathogens and Animals

Map

Locations of Invasive Species in Your Favorite Wild Places

Protect

America's Wild Places for Future Generations

THE NUMBERS

57 Partnerships

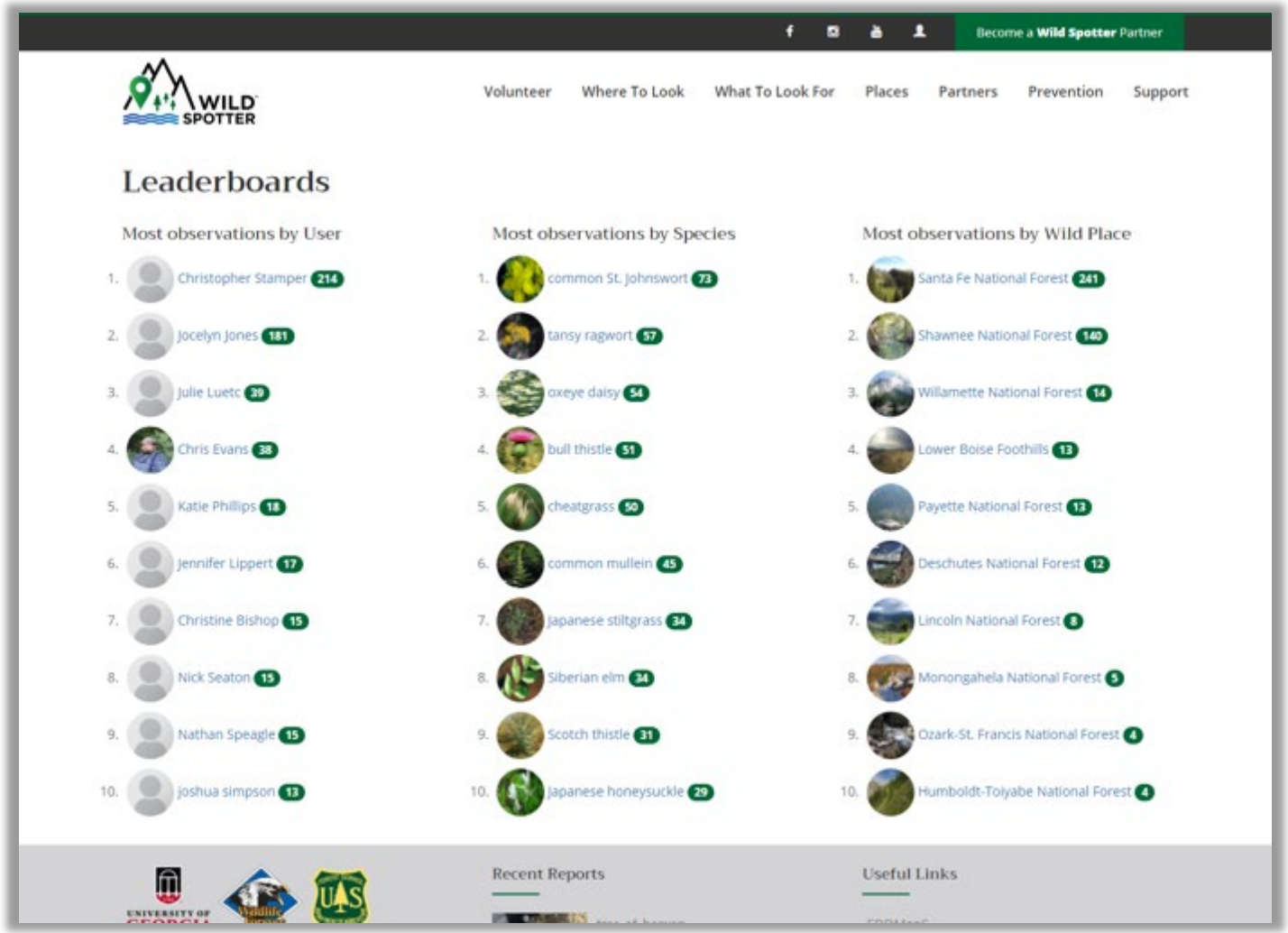
DATA COLLECTION AND MAPPING

- *Mobile apps* are the primary way to collect data, although other manual methods are possible.
- **Photographs** are encouraged for validation.
- We are working to provide guidance and support for taking environmental samples (e.g., **eDNA**).
- NRM is helping to move data from the Wild Spotter system into the USFS FACTS (TESP-IS) database.
- Validation and quality control through EDDMapS platform. **Pre-loading USFS data** into the system to reduce duplicating existing records.

New to the Website:

Leaderboards

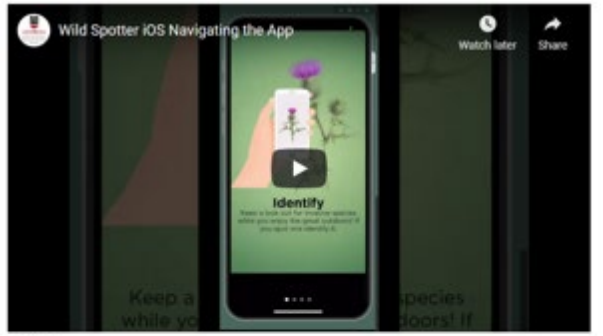
- Most observations by User
- Most observations by Species
- Most observations by Wild Place



New to the Website:

Informational Videos:

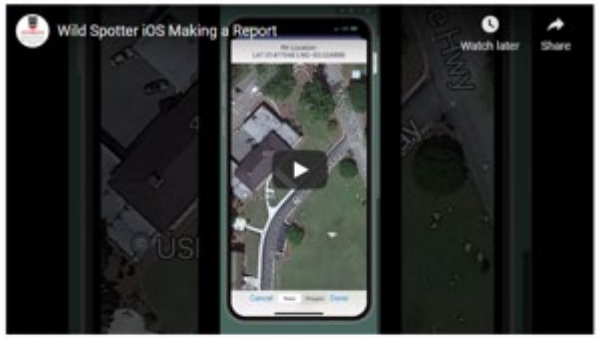
- Promotional video
- Be prepared: What to do before you go to the Wild Place
- How to become a Wild Spotter partner
- How to become a Wild Spotter volunteer
- Getting started
- How to navigate the app (iOS and Android versions)
- How to report invasive on my phone (iOS and Android versions)
- How are reports validated
- How do to quantify an infestation (*coming soon*)
- Reporting unknown or unlisted species



Android

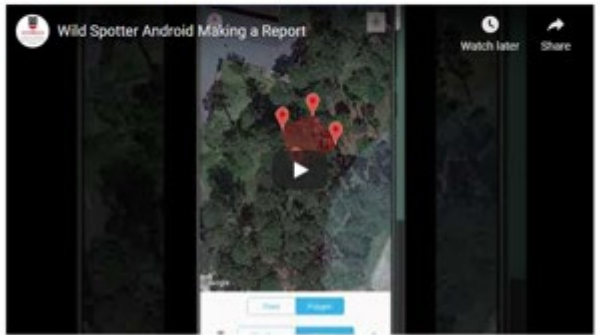
iPhone

iPhone



Android

Android

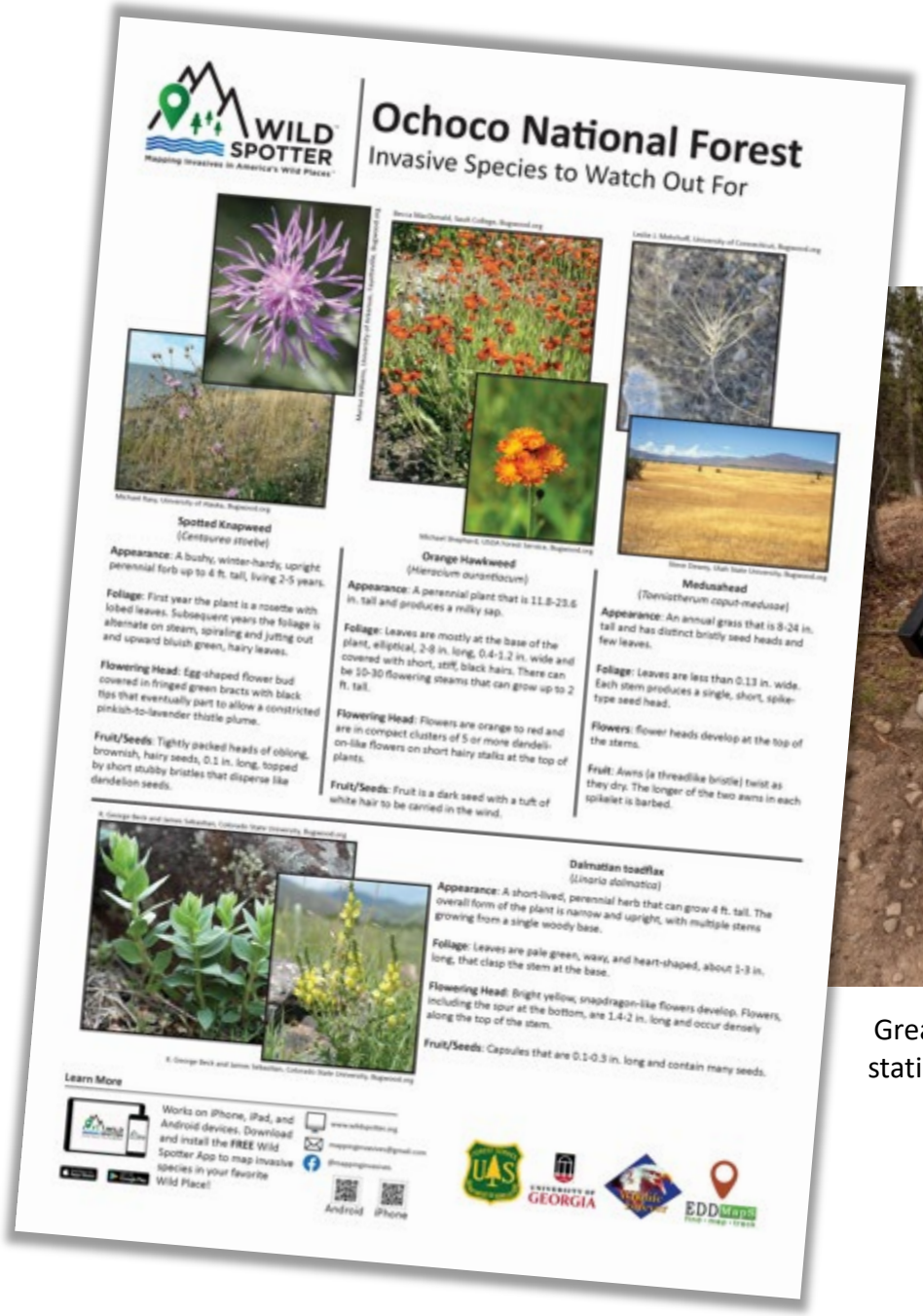


New to the Website:

Trailhead posters:

- Alabama National Forests
- Chequamegon-Nicolet National Forest
- Daniel Boone National Forest
- Deschutes National Forest
- Lincoln National Forest
- Monongahela National Forest
- Ochoco National Forest
- Ozark-St. Francis National Forest
- Payette National Forest
- Rio Grande National Forest
- Santa Fe National Forest
- Siuslaw National Forest
- Wallowa-Whitman National Forest

(***more coming soon!***)



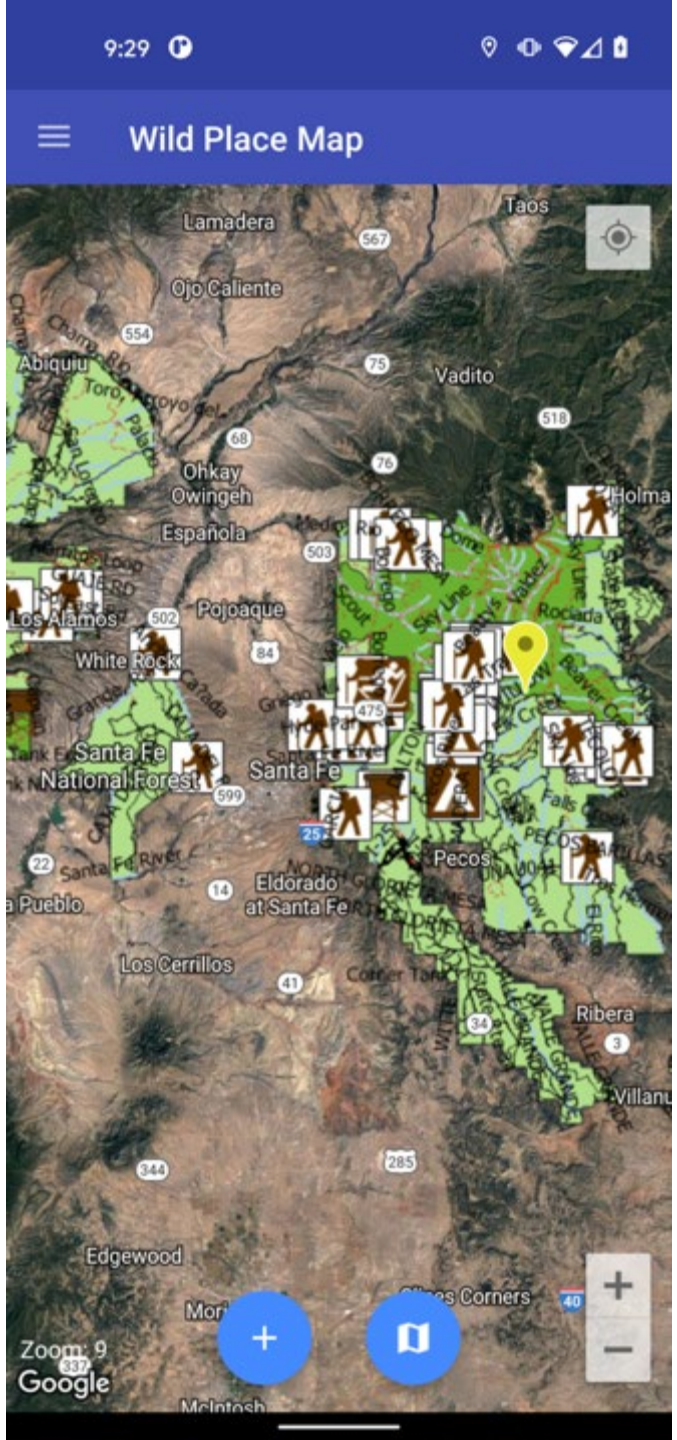
Great for trailheads, boot brush stations, and information boards

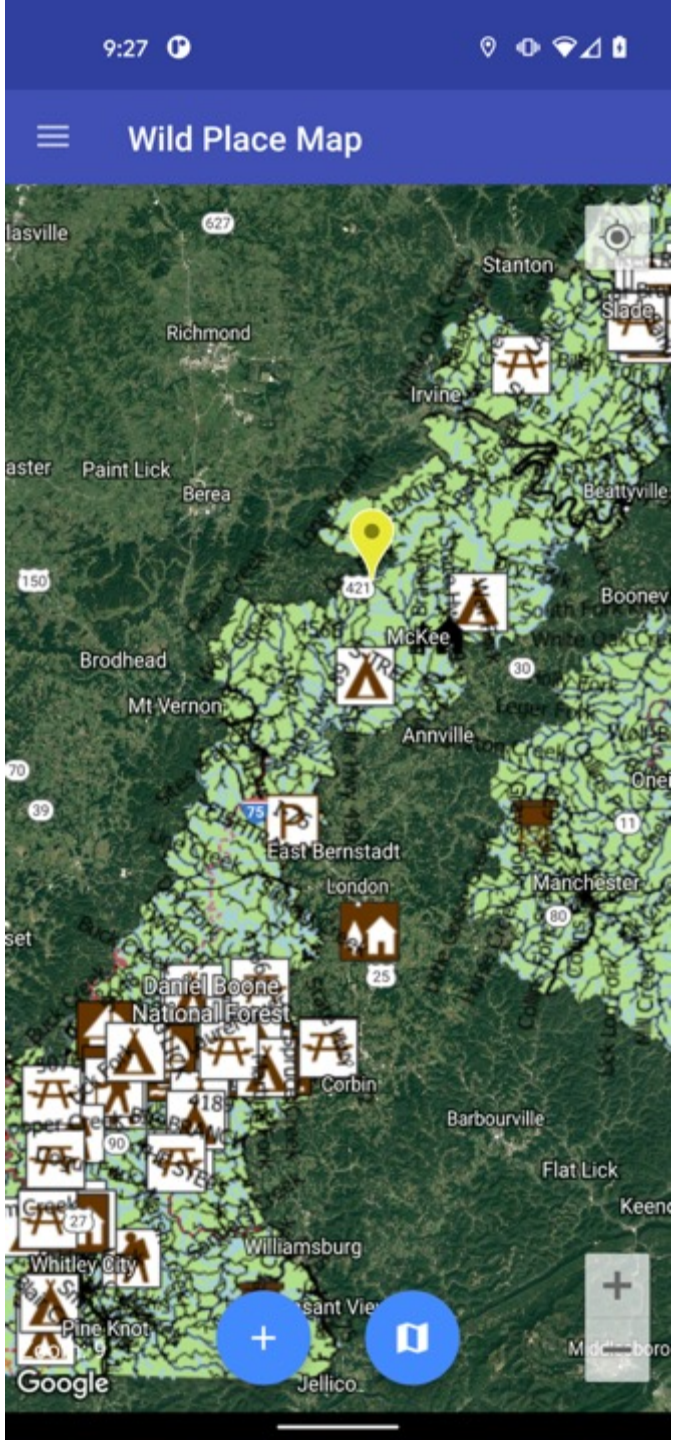
New to the Apps:

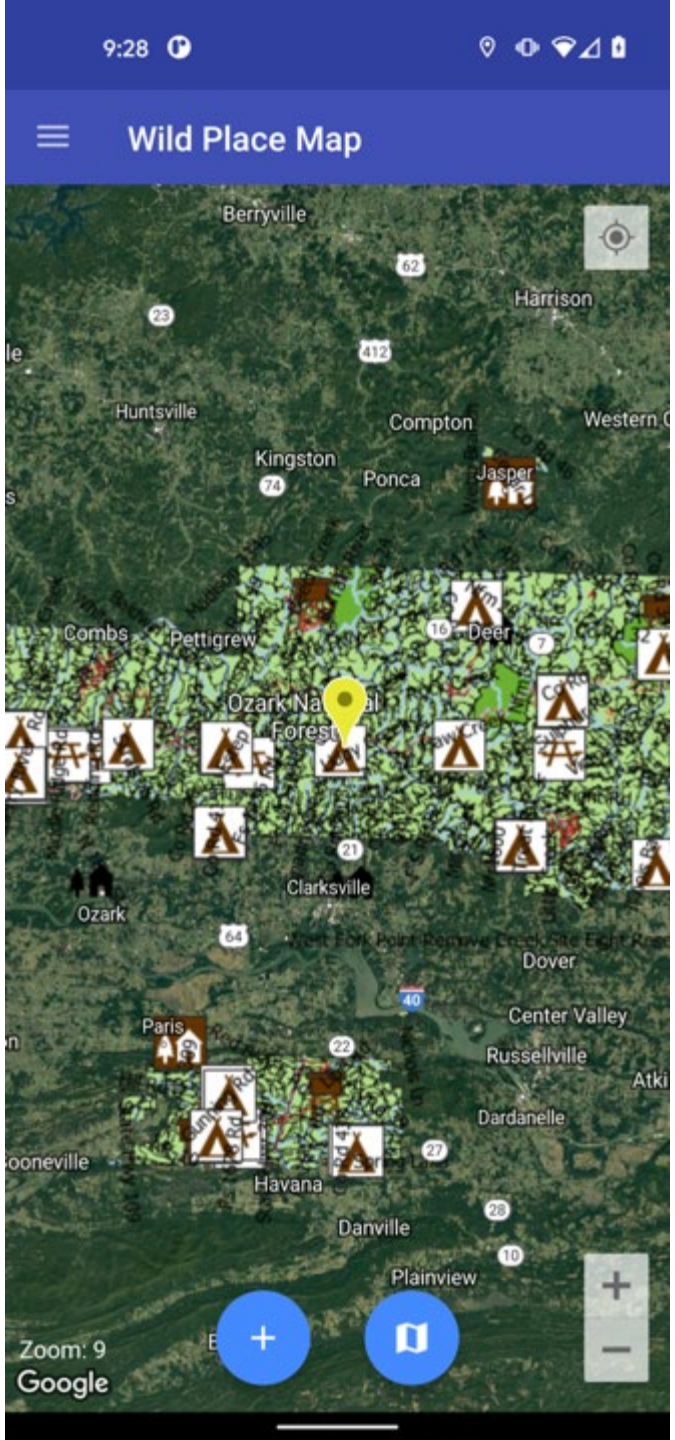
Offline Maps*

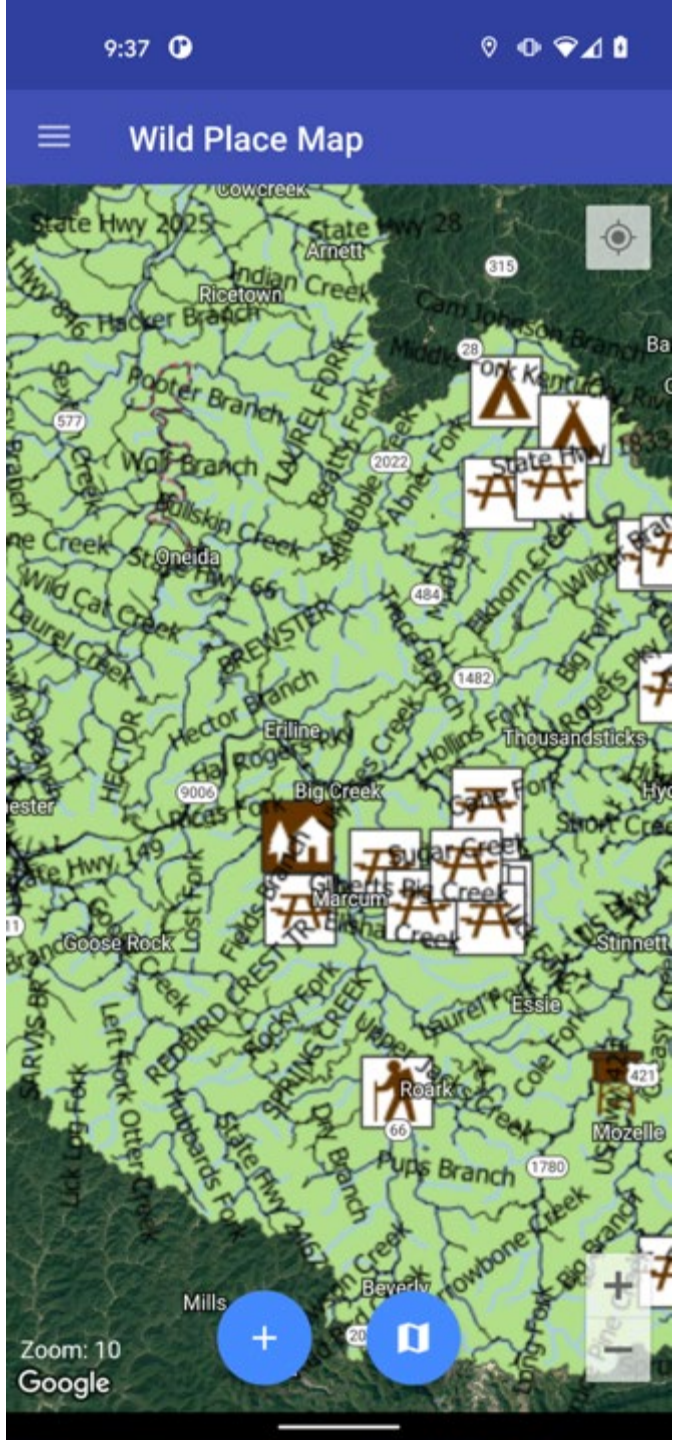
- Wild place boundaries
- Wilderness Areas
- Rivers, streams, lakes
- Hiking trails
- Camping sites
- Recreational sites
- Etc.

*Assists in the functionality to report in remote areas






9:28
Wild Place Map
Berryville
Harrison
Huntsville
Compton
Kingston
Ponca
Jasper
Combs
Pettigrew
Deer
Ozark Na
Forest
Clarksville
Ozark
Dover
Center Valley
Paris
Russellville
Dardanelle
Havana
Danville
Plainview
Zoom: 9
Google


9:37
Wild Place Map
Cowcreek
State Hwy 2025
State Hwy 28
Arnett
Ricetown
Indian Creek
Wolf Branch
Oneida
Wild Cat Creek
Laurel Creek
Hector Branch
Eriline
Big Creek
Thousandsticks
Goose Rock
Marcum
Essie
Roark
Mozelle
Pups Branch
Mills
Beverly
Zoom: 10
Google

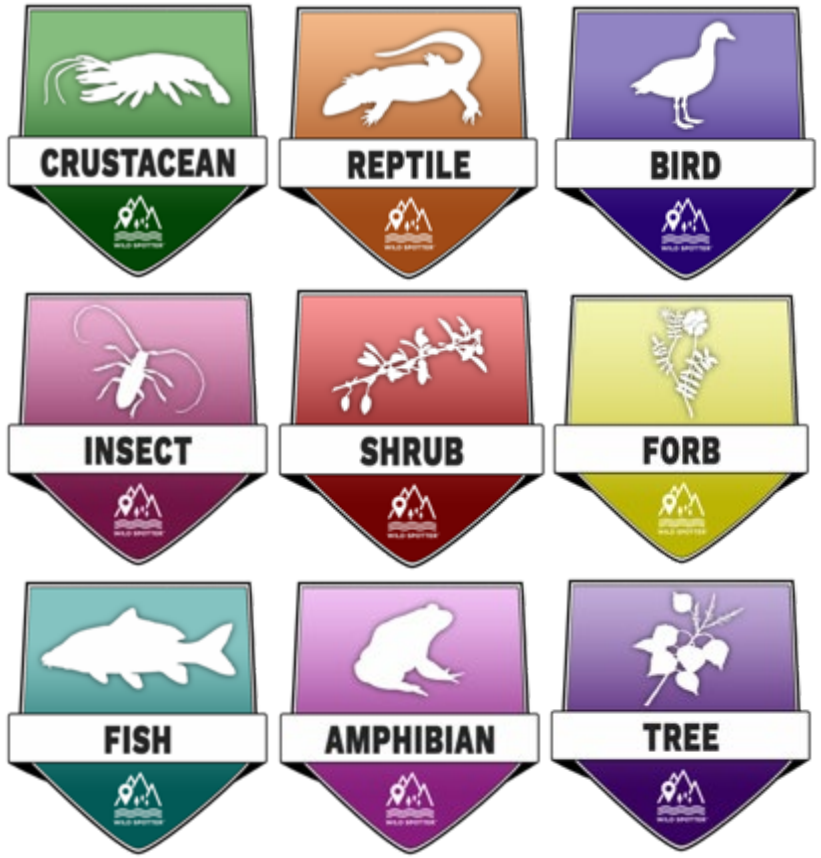

9:38
Wild Place Map
Ozark National Forest
Zoom: 11
Google


9:36
Wild Place Map
Sierra Mosca
Beaver Creek
Holy Ghost
Tererro
Lower La Posada
Pecos
Glorieta
Zoom: 10
Google

Coming soon to the app:

Wild Spotter Badges

Reporter badges

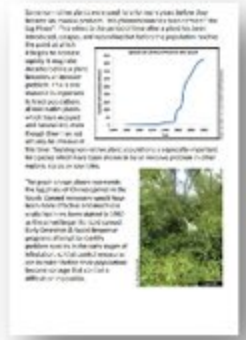


Category badges

Expanding to All National Forests and National Grasslands

Expanding into Bureau of Land Management

Image Credit: Bob Wick, BLM



IDENTIFY GOAL

MAP THE AREA

SELECT TARGET INFESTATIONS

SIIPA TOOL

SIIPA (SPATIAL INVASIVE INFESTATION PRIORITY ANALYSIS)

MONITOR AND EVALUATE

PRIORITIES IDENTIFIED

LOCATIONS SENT TO PHONE

TREATMENTS

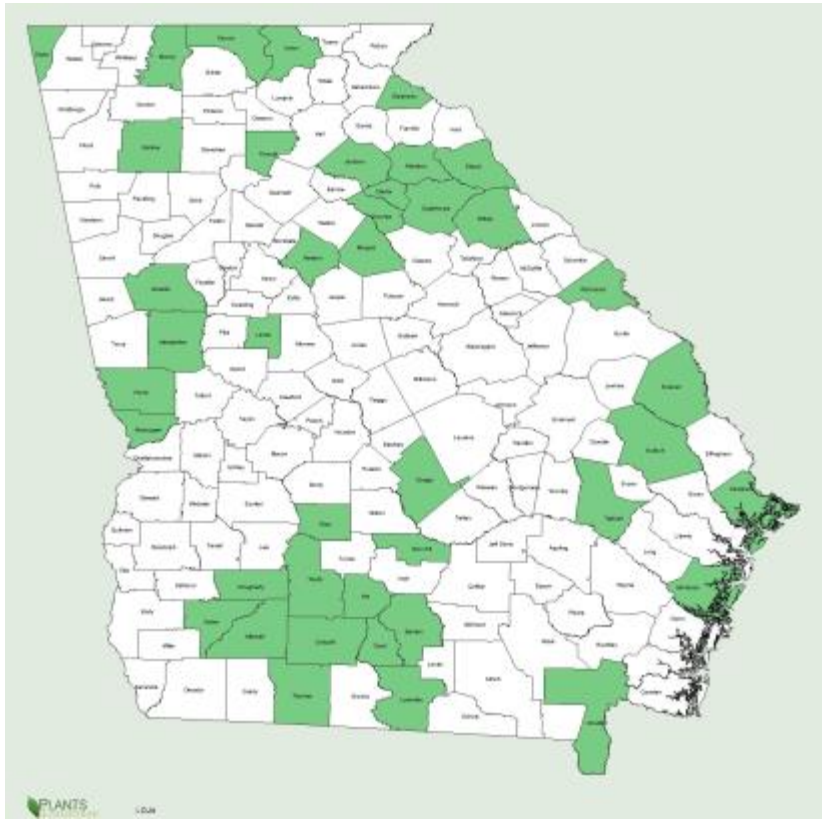
Where we are today

Center for Invasive Species and Ecosystem Health
UNIVERSITY OF GEORGIA

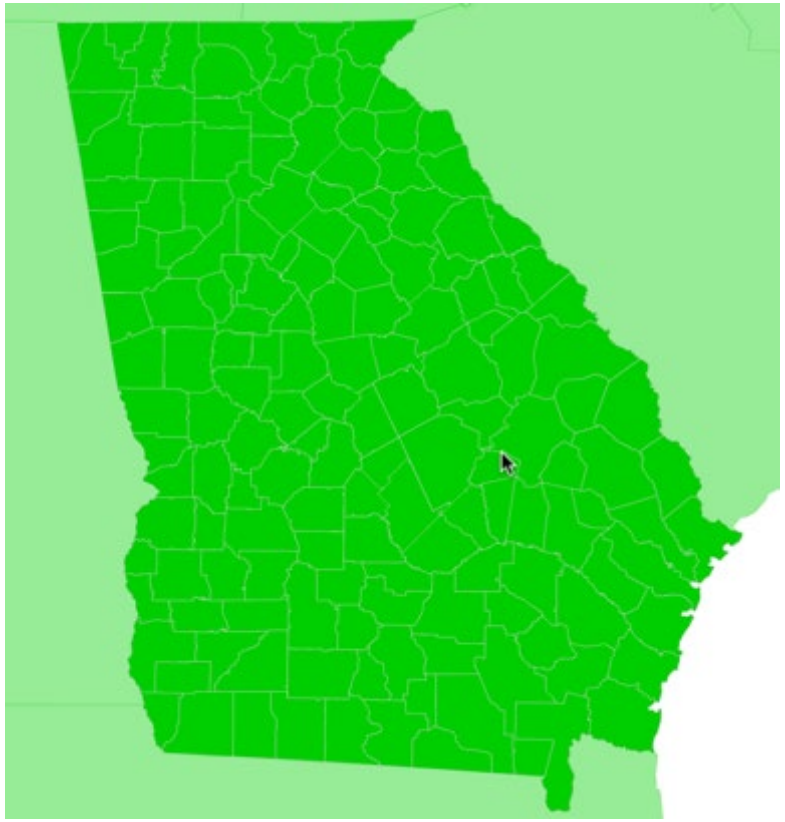
- Ultimate Aggregator
  - Invasive Species, Biocontrol Agents, Pest data …
  - Working across geographical, political and organizational boundaries
- Tools for National, Regional, State and CWMA/CISMA scale
- Current Focus:
  - Continued Data Recruitment
  - Enhanced Querying and Mapping Tools
  - Monitoring
  - Treatment Tracking

Distribution Maps

Center for Invasive Species and Ecosystem Health
UNIVERSITY OF GEORGIA



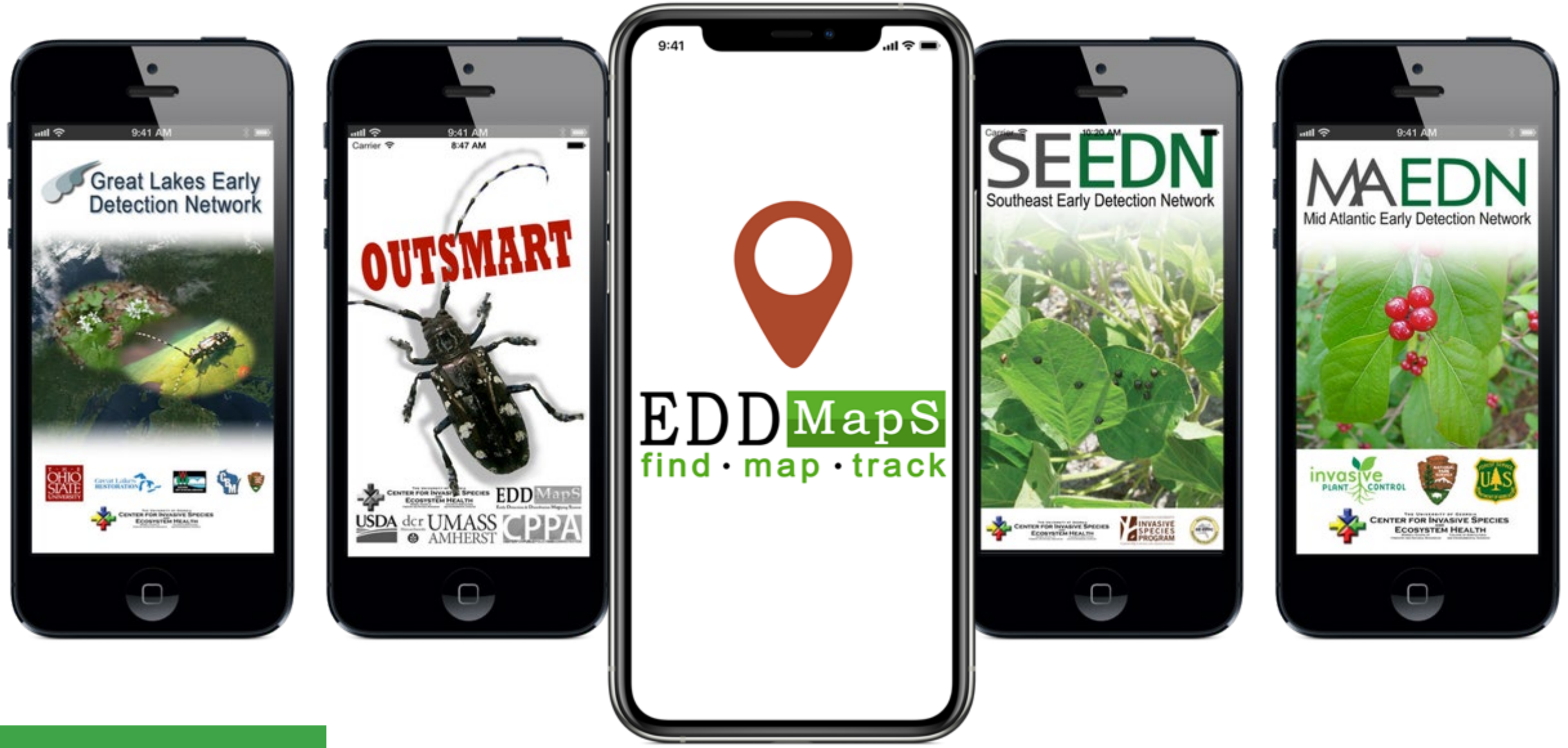
Japanese Honeysuckle
Distribution in Georgia



Japanese Honeysuckle
Distribution in Georgia

Integration of Apps into one EDDMapS App

Center for Invasive Species and Ecosystem Health
UNIVERSITY OF GEORGIA



Features

Web Reporting
Reporting of Invasive Species to a National Network of Verifiers

Smartphone Apps
iOS and Android Apps for Species ID, Reporting, and more

Data Downloads
Records are free to Download using the Advanced Query Tools

Upload Bulk Data
Data files can be Uploaded for Bulk Contribution of Existing Data

Dashboard
Your My EDDMapS Dashboard with Statistics and Info

Management Tracking
Use EDDMapS Pro to track infestations over time

Interactive Maps
Data Visualization at State, County and Individual Population level

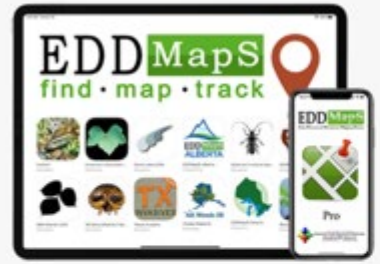
Outreach Content
Original content created by Bugwood for Social Media and Available for Sharing

Educational Resources

EDDMapS: Invasive Species Mapping Handbook
What is EDDMapS/Entering Data Online
EDDMapS Walk-Through - PPT
EDDMapS Walk-Through - PDF
Set up Alerts/ Edit Your Profile
Add Revisits and Edit Your Data
Uploading Bulk Data
Entering Negative Data
Maps and Advanced Query Tools
Advanced Query Tools Webinar

EDDMapS find • map • track

HOME | REPORT SIGHTINGS | DISTRIBUTION MAPS | SPECIES INFORMATION | TOOLS & TRAINING | MY EDDMAPS | ABOUT



Bring the Power of EDDMapS to Your Smartphone

Introducing BugwoodApps - comprehensive mobile applications that engage users with invasive species, forest health, natural resource and agricultural management.

iPhone | iPad | Android

BugwoodApps

Recent Reports

4 OCT 2020
wild parsnip
Pastinaca sativa
Tony Rowan , Greenvale Township Supervisor - Greenvale Township Supervisor
Dakota County, Minnesota
read more ›

4 OCT 2020
wild parsnip
Pastinaca sativa
Tony Rowan , Greenvale Township Supervisor - Greenvale Township Supervisor
Dakota County, Minnesota
read more ›

OCT 2020
…otweed
…*ponica*
Lee Setzer , ACE - ACE
Raleigh County, West Virginia
read more ›

Alerts

Sign up for alerts

First in County

These reports are the first known occurrence of that particular species in that county.

soybean rust (*Phakopsora pachyrhizi*)
October 5, 2020
Jonathan Croft , Clemson University Extension Service
Orangeburg County, South Carolina

soybean rust (*Phakopsora pachyrhizi*)
October 5, 2020
Jonathan Croft , Clemson University Extension Service
Dorchester County, South Carolina

soybean rust (*Phakopsora pachyrhizi*)
October 5, 2020
Jonathan Croft , Clemson University Extension Service
Calhoun County, South Carolina

First in State

These reports are the first known occurrence of that particular species in that state.

tar spot of corn (*Phyllachora maydis*)
September 30, 2020
Alyssa Collins , Penn State Ag Research Farm
Lancaster County, Pennsylvania

unknown insect ( )
September 29, 2020
karl veggerby
King County, Washington

Balfour's touch-me-not (*Impatiens balfourii*)
September 23, 2020
Deborah Sweeney , Three Rivers Parks volunteer
Hennepin County, Minnesota

Report an Invasive Plant Occurrence

Red fields are required.

Species

Pest (?) :

Search for a species

Infestation

Status: Positive (?) Show satellite imagery ed (?)

Observation Date (?):

03/28/2021

Infested Area (?):

Select One

Survey Area (?):

Select One

Habitat (?):

Select One

Percent Cover (?):

Select One

Abundance:

Select One

Plant Description:

Mature | Sapling/Immature | Seedling/Rosette | In Flower | In Fruit | Seeds | Dormant/Dead | Unknown

Damage (?):

Yes | No

If you select "Yes", please upload a photo of a leaf with damage below. If possible, please place a blue or white background behind the leaf. Include the word "damage" in the caption.

Location

In addition to State and County, please provide details by placing a marker or listing the physical address on where the sighting occurred.

State:

Montana

County:

Latitude (?):

Must be expressed in Decimal Degrees (XX.XXXX), and DATUM NAD83/WGS84.

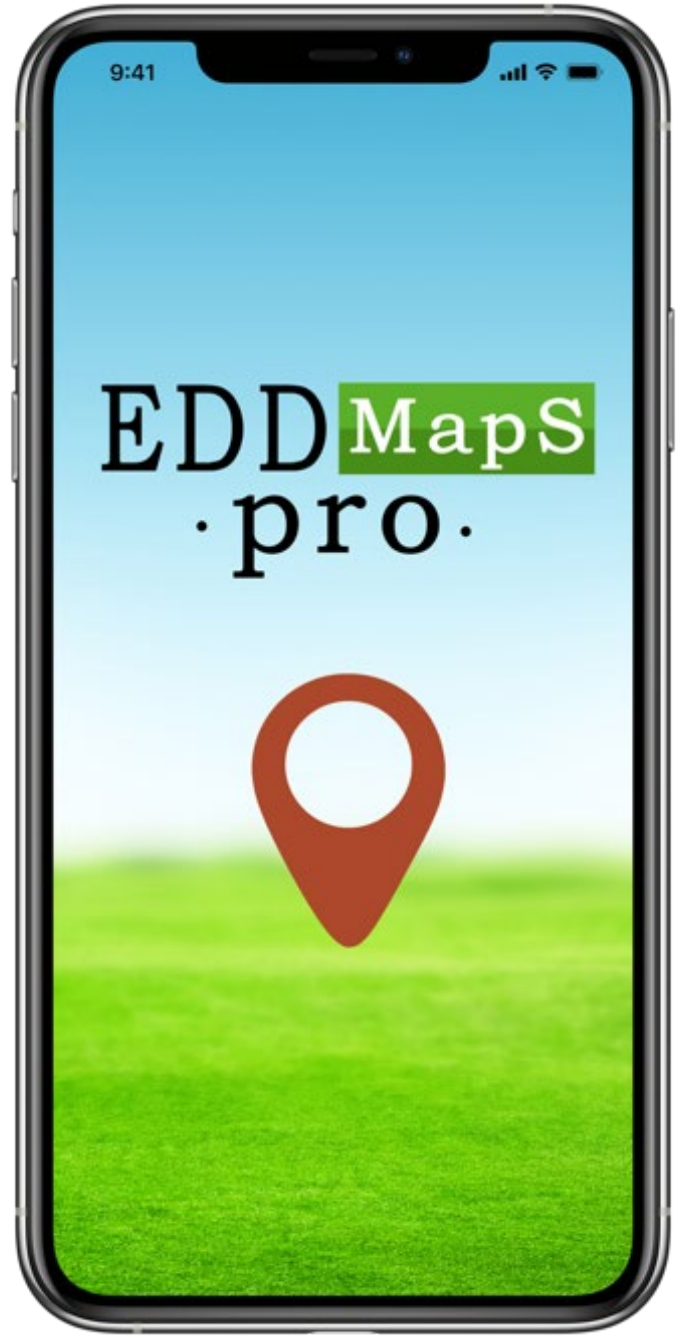
Longitude (?):

Must be expressed in Decimal Degrees (XX.XXXX), and DATUM NAD83/WGS84.

lat/long conversion tools | place marker at position | clear map

Location Description/Nearest Address:


9:41
EDDMapS
find · map · track


9:41
EDDMapS
·pro·

SAFEGUARDING AMERICA'S LANDS AND WATERS FROM INVASIVE SPECIES

A National Framework for Early Detection and Rapid Response

Data Recording and Sharing

Once the species identification is confirmed, the species occurrence should be reported to:

- Specific entities that may be identified in reporting protocols or information transfer protocols designated by agencies, regulation, or law, and/or
- General entities such as:
  - USGS Nonindigenous Aquatic Species database, *http://nas.er.usgs.gov/*
  - PLANTS database (for native and invasive species), *http://plants.usda.gov*
  - EDDmapS, *http://www.eddmaps.org/*
  - iMapInvasives, *http://imapinvasives.org/*

Species occurrences may also be reported to a specific agency that hosts a taxonomic collection, such as at the USDA Agricultural Research Service, Smithsonian, or other agency, state, or regional database, as appropriate. Aggregating data from existing da-

Figure C3. Examples of State and Regional EDRR Networks. The networks vary on level of activity and species focus. Additional networks may exist. (Courtesy C. Bargeron, University of Georgia 2015)


Who?
How?
How much?
What?
When?
Why?
Where?

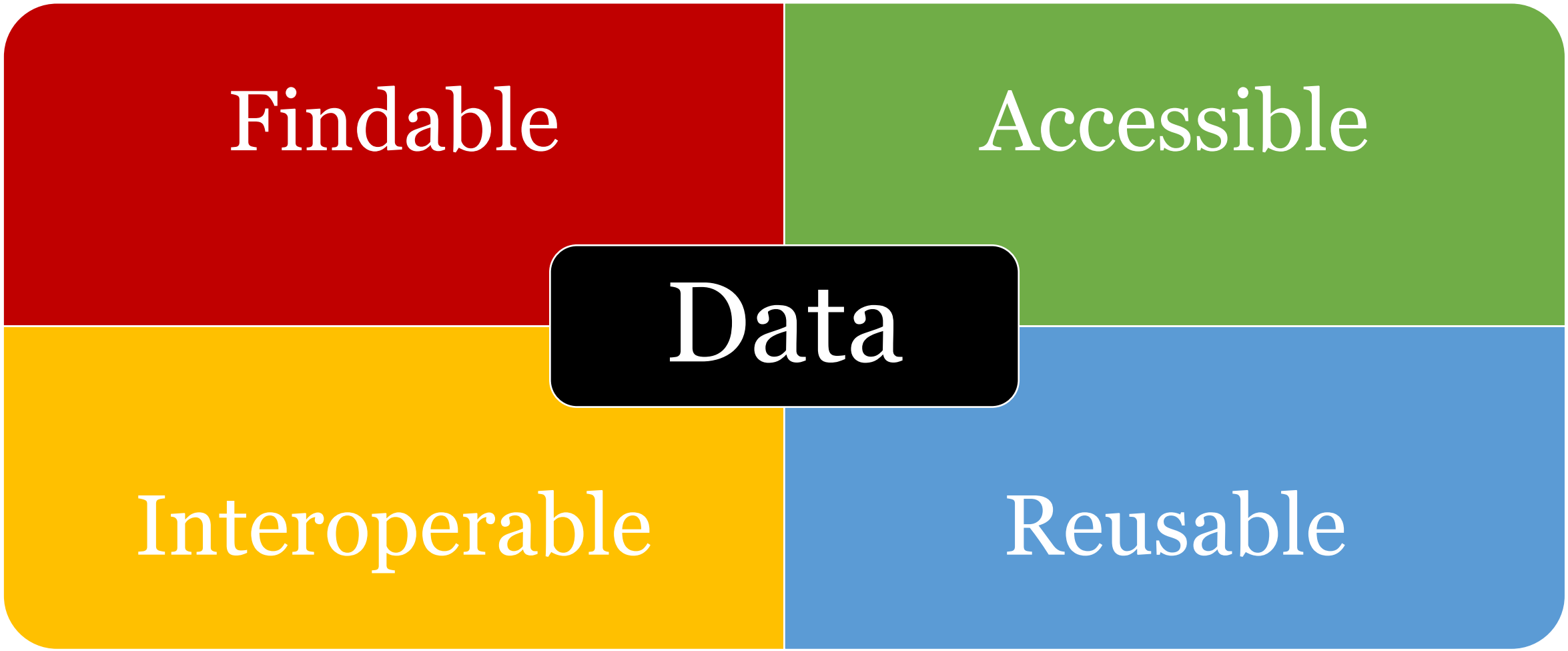
Why EDDMapS was created?

Center for Invasive Species and Ecosystem Health
UNIVERSITY OF GEORGIA

EDRR Action	Information Needed
Detection	• What should be reported? • How is it reported?
Responders Alerted	• Who has jurisdiction? • Is it new to the county, state, U.S?
Rapid Assessment	• Is the identification correct? • Has a risk assessment been done?
Response	• What management options are available? • What was done and was it effective?

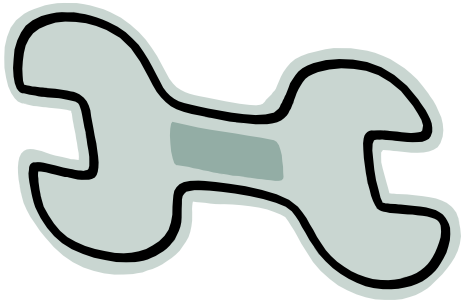
Why EDDMapS was created?

Center for Invasive Species and Ecosystem Health
UNIVERSITY OF GEORGIA

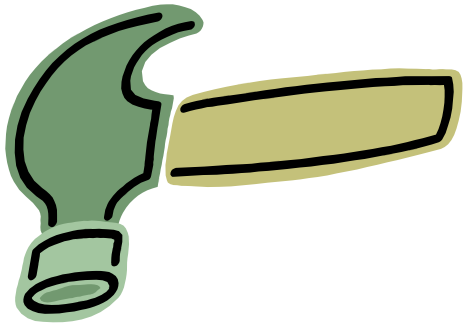


There is a tool for every job…

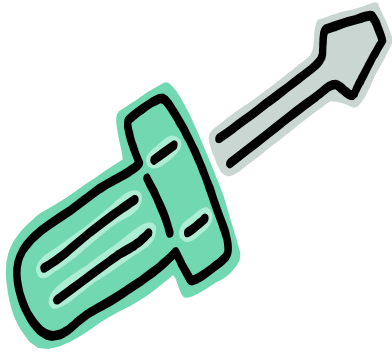
Center for Invasive Species and Ecosystem Health
UNIVERSITY OF GEORGIA



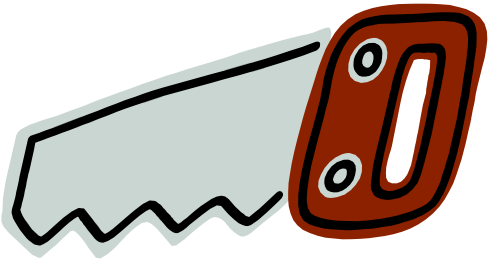
Early Detection



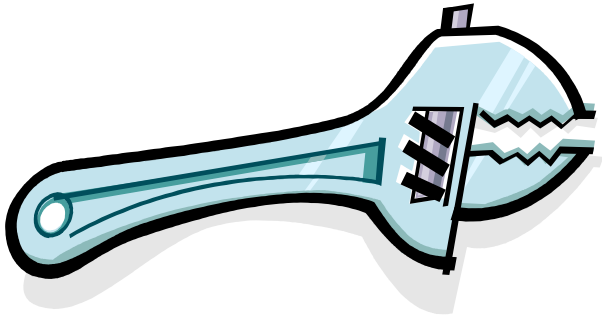
Verification



Alerts

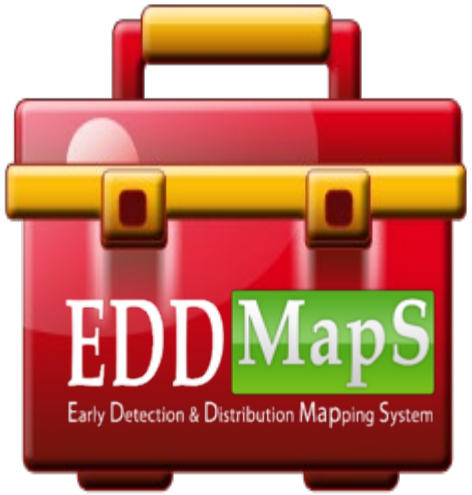


Visualization



Monitoring and Management

Data Sharing and Collaboration



Putting the Pieces Together

The Right Tool for the Right Job

Center for Invasive Species and Ecosystem Health
UNIVERSITY OF GEORGIA

Casual Users

EDDMapS App and Website

The Public

IveGot1 App and Website
Wild Spotter App and Website
iNaturalist Triage

Professionals

EDDMapS App and Website
EDDMapS Pro App
AgPestMonitor Website
ISMTrack App and Website

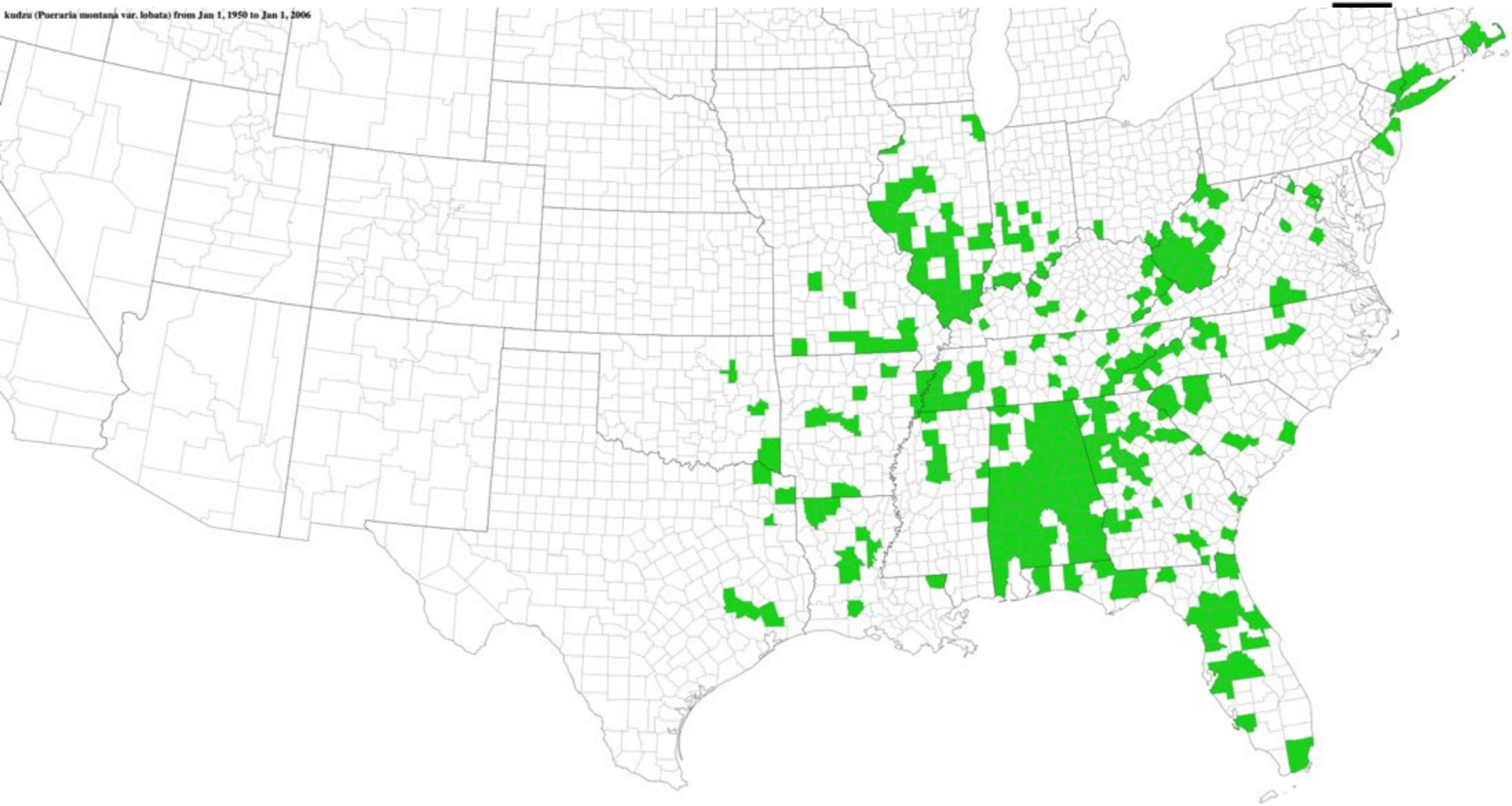
Researchers

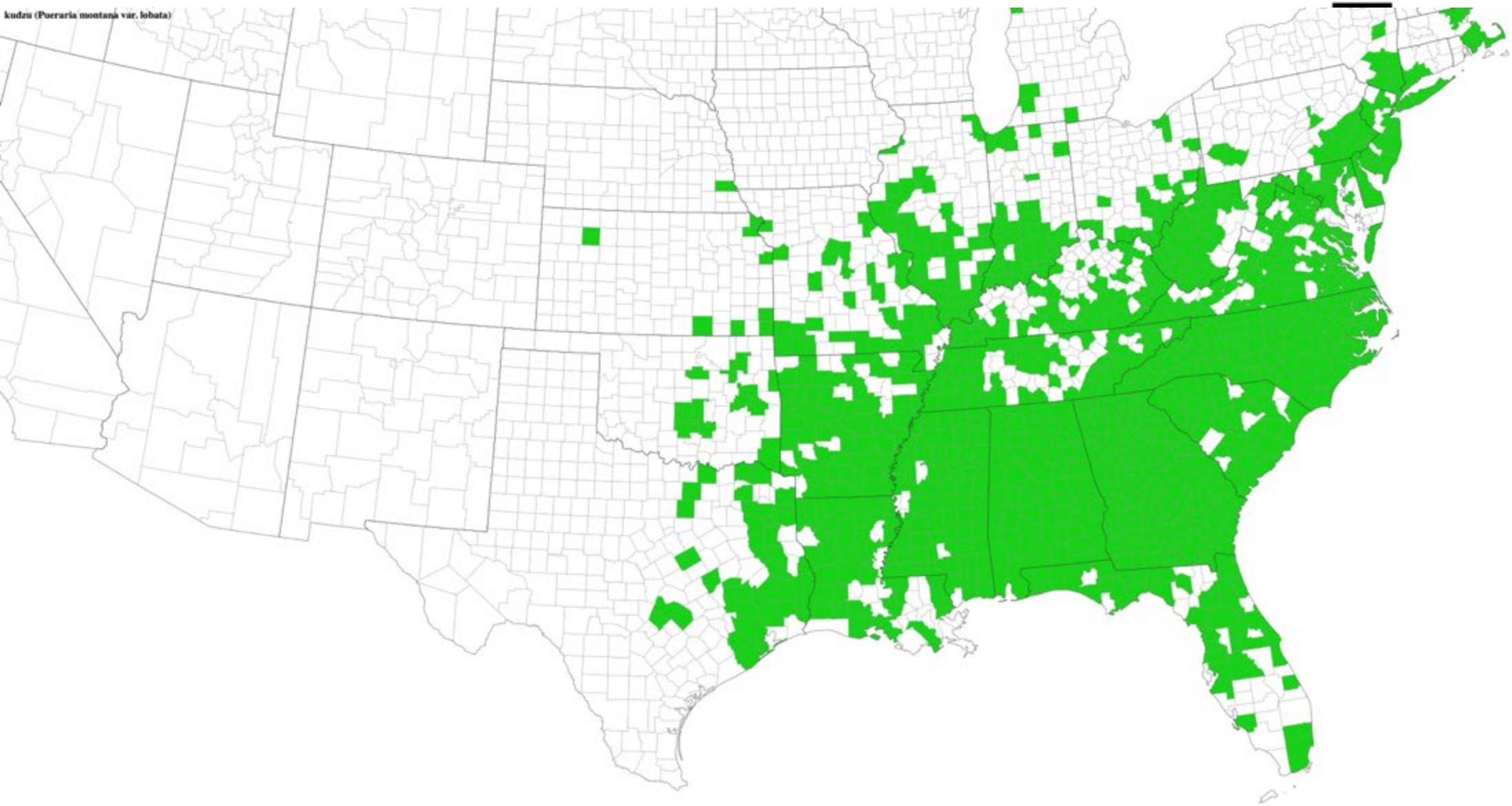
Data Downloads
County Range Expansion Maps
Cite as the most complete source of distribution data

Kudzu
Pueraria montana var. *lobata*

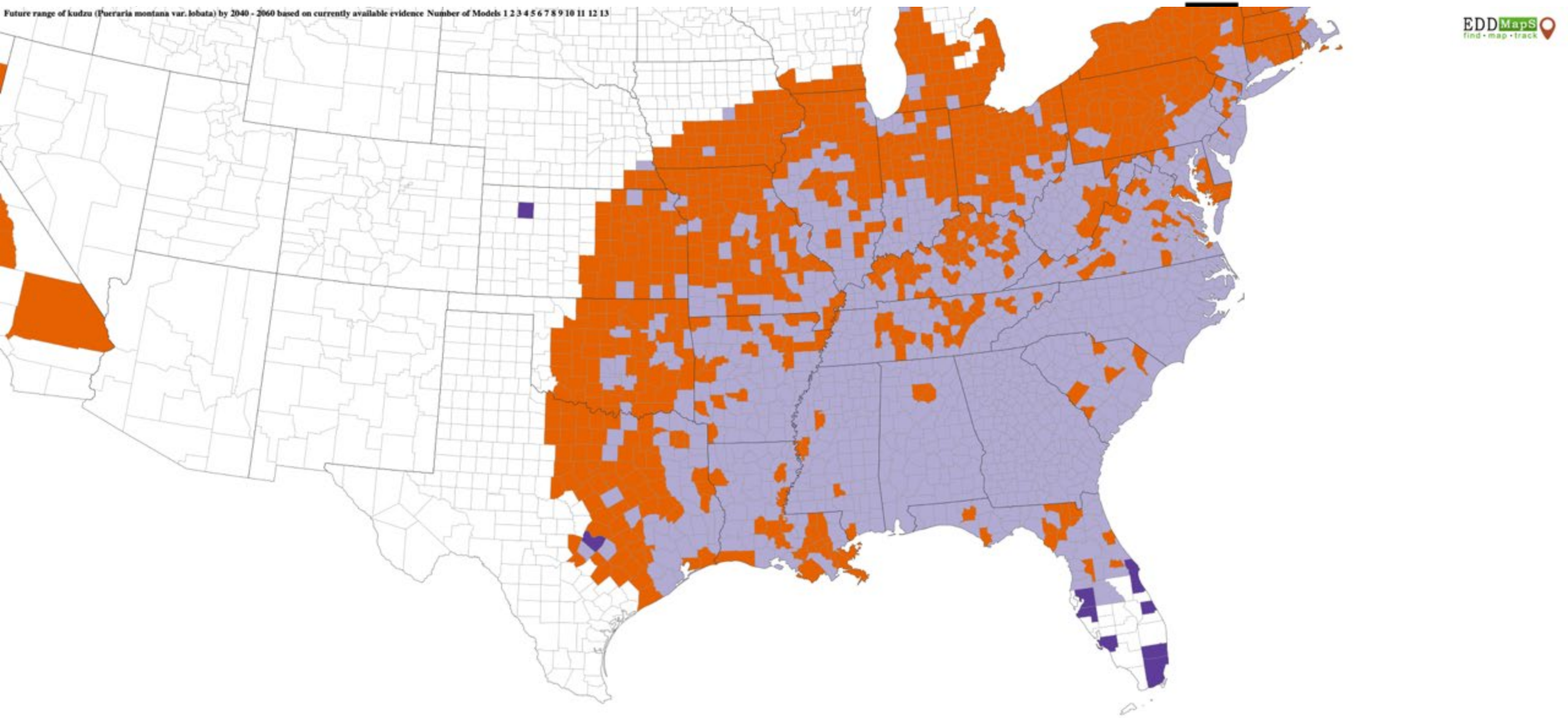
Center for Invasive Species and Ecosystem Health
UNIVERSITY OF GEORGIA

Photos by Chuck Bargeron (UGA), Jim Miller (USFS), Chris Evans (U. Illinois), Bugwood.org

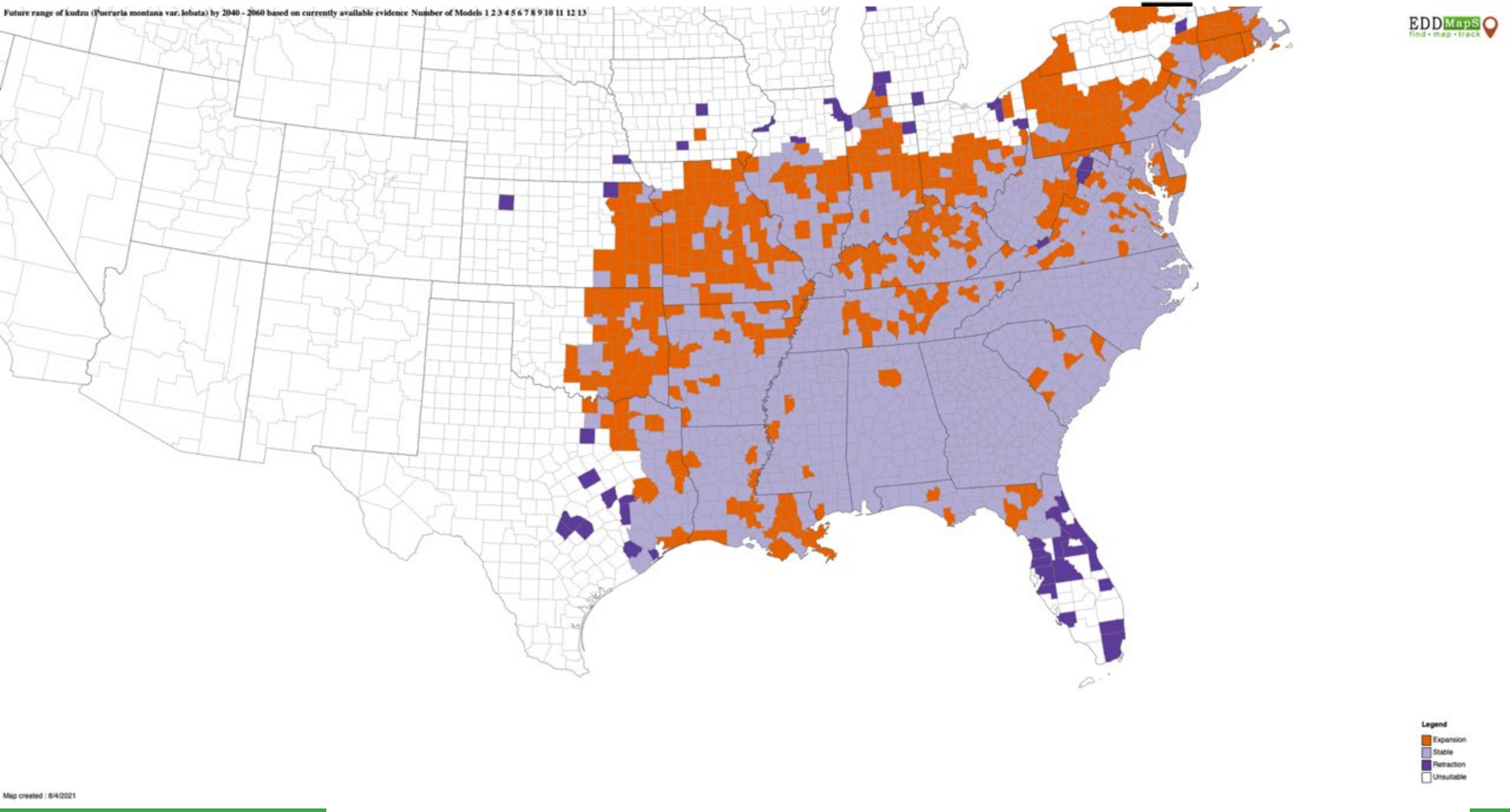

kudzu (Pueraria montana var. lobata) from Jan 1, 1950 to Jan 1, 2006
EDDMapS
find • map • track
Legend
No Data
Species Reported
Map created : 8/4/2021


kudzu (Pueraria montana var. lobata)
EDDMapS
find • map • track
Legend
No Data
Species Reported
Map created : 8/4/2021

Future range of kudzu (Pueraria montana var. lobata) by 2040 - 2060 based on currently available evidence Number of Models 1 2 3 4 5 6 7 8 9 10 11 12 13



Map created : 8/4/2021


Future range of kudzu (Pueraria montana var. lobata) by 2040 - 2060 based on currently available evidence Number of Models 1 2 3 4 5 6 7 8 9 10 11 12 13
EDDMapS
find • map • track
Legend
Expansion
Stable
Retraction
Unsuitable
Map created : 8/4/2021

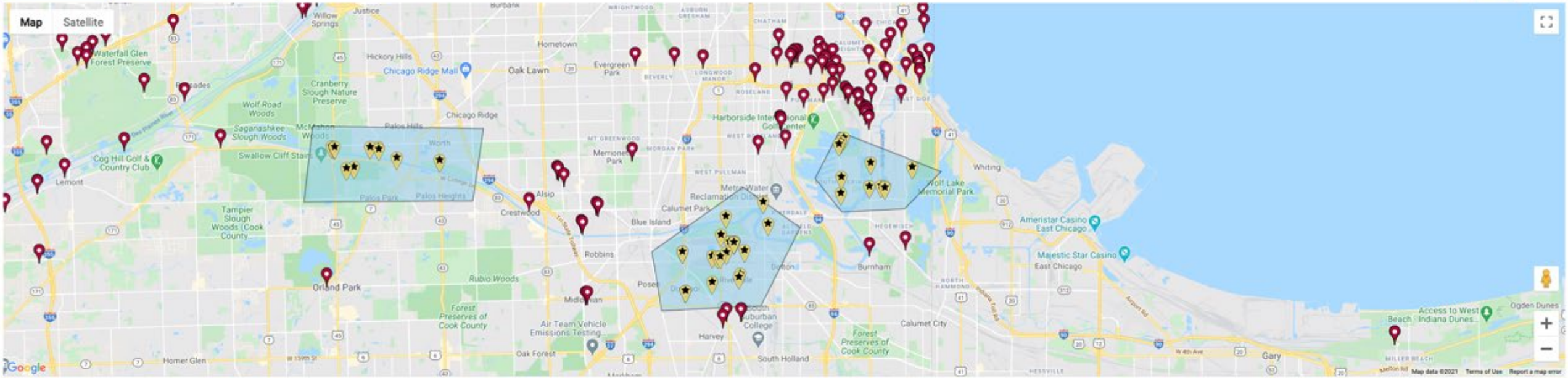
Monitoring

print

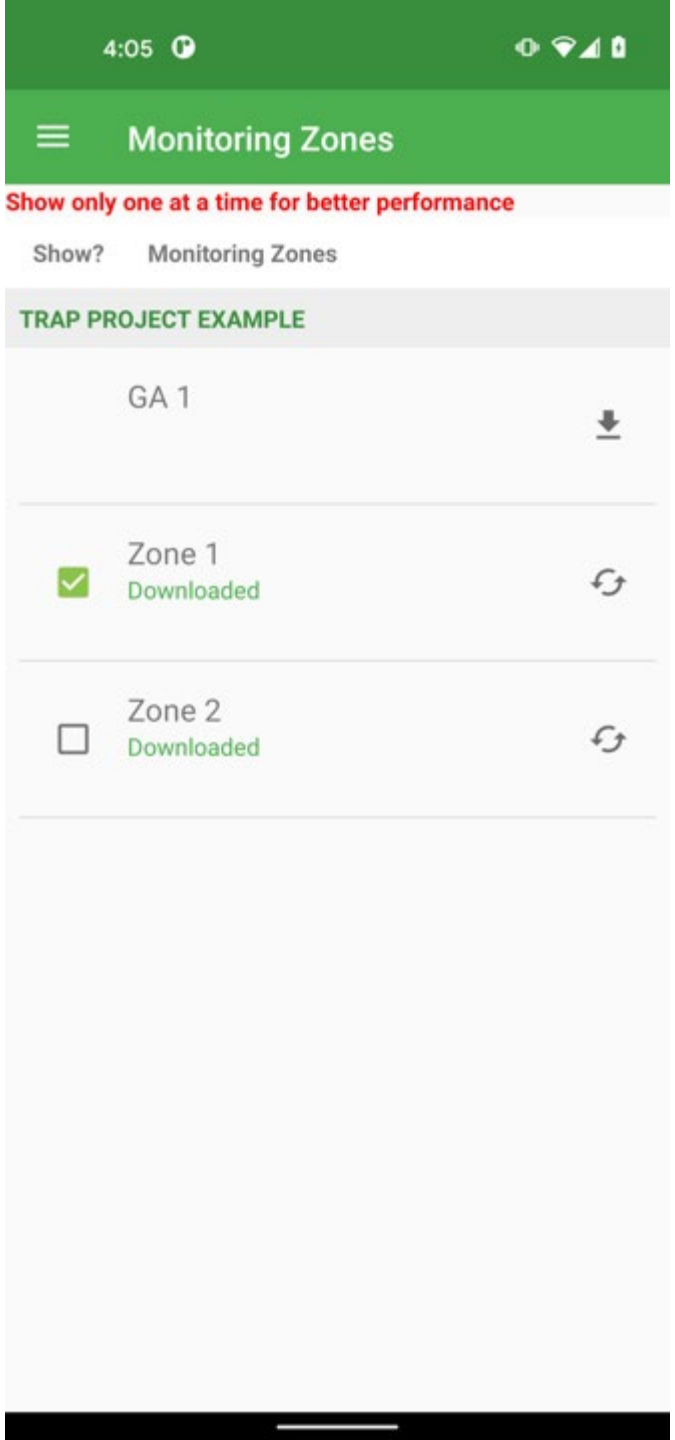
Draw Monitoring Zone | Draw Site | Drop Survey Point/Trap *Drawing mode* : none

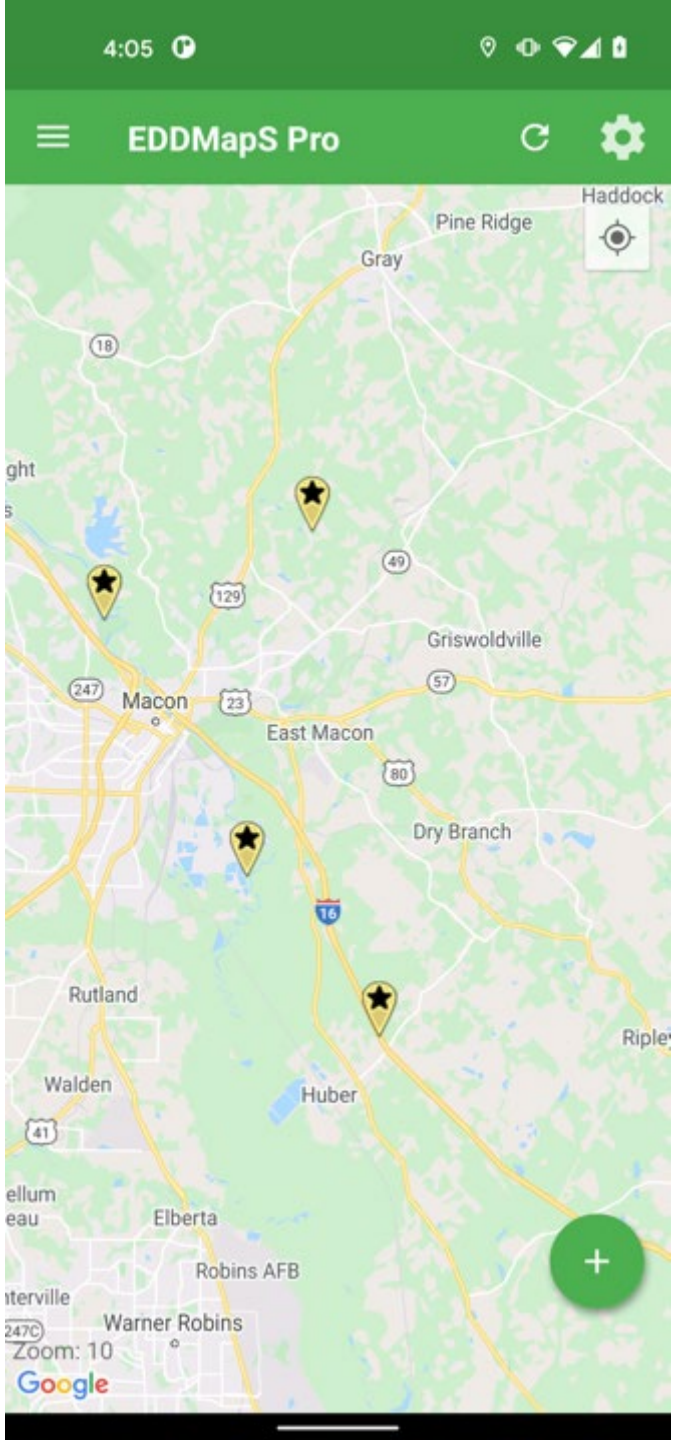
Changes: Pending

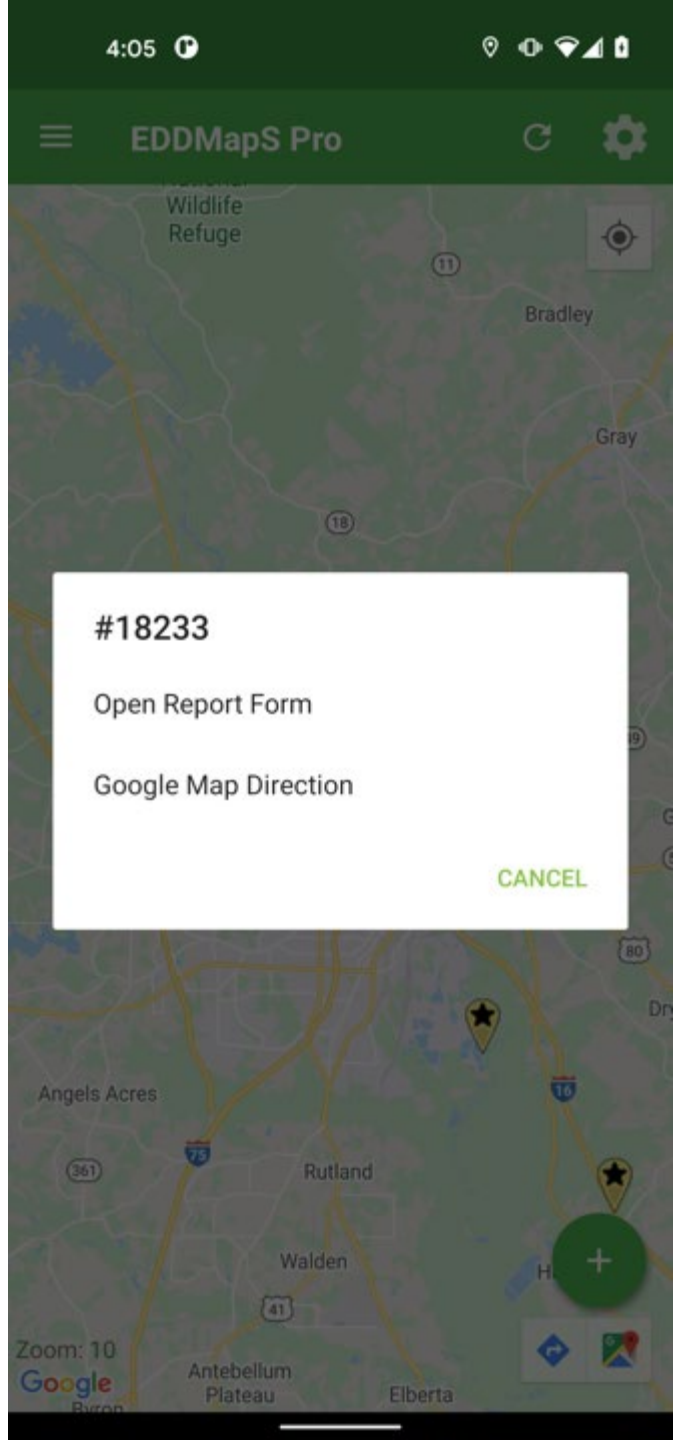
Save | Filter

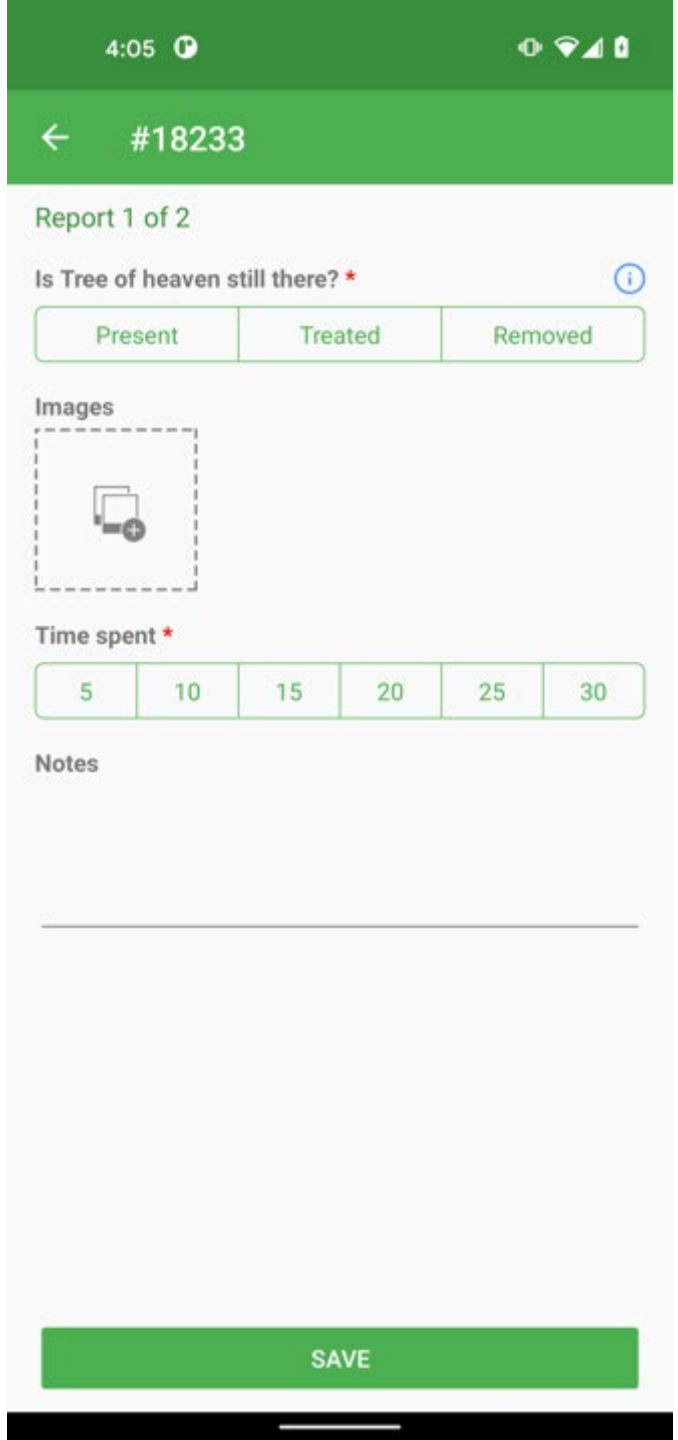


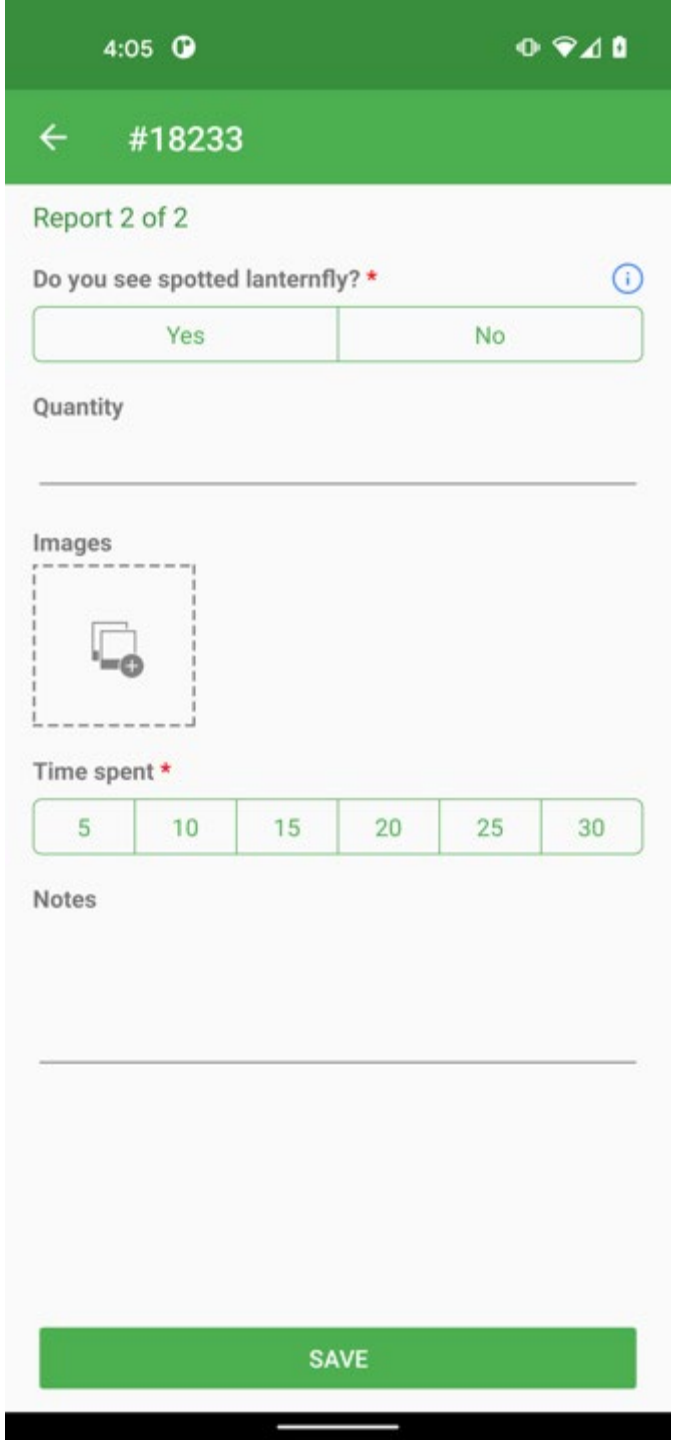
Monitoring Zone | Site | Trap | Inactive | Orphaned


4:05
Monitoring Zones
Show only one at a time for better performance
Show?
Monitoring Zones
TRAP PROJECT EXAMPLE
GA 1
Zone 1
Downloaded
Zone 2
Downloaded


4:05
EDDMapS Pro
Haddock
Pine Ridge
Gray
Griswoldville
Macon
East Macon
Dry Branch
Rutland
Walden
Huber
Elberta
Robins AFB
Warner Robins
Zoom: 10
Google


4:05
EDDMapS Pro
Wildlife
Refuge
Bradley
Gray
#18233
Open Report Form
Google Map Direction
CANCEL
Angels Acres
Rutland
Walden
Antebellum
Plateau
Elberta
Zoom: 10
Google


4:05
#18233
Report 1 of 2
Is Tree of heaven still there? *
Present
Treated
Removed
Images
Time spent *
5
10
15
20
25
30
Notes
SAVE


4:05
#18233
Report 2 of 2
Do you see spotted lanternfly? *
Yes
No
Quantity
Images
Time spent *
5
10
15
20
25
30
Notes
SAVE

Alberta Invasive Species Council's

Big EDD Award

Crystal Ionson - Most Individual EDDMapS Alberta reports in 2019

ALBERTA invasive species COUNCIL

WATCH OUT!

GIVE **GARLIC MUSTARD** THE BRUSH OFF.

HELP PREVENT THE SPREAD OF INVASIVE SPECIES

REMOVE plants and mud from boots, gear, pets and vehicles.

CLEAN your gear before entering and leaving the recreation site.

STAY on designated roads and trails.

USE CERTIFIED or local firewood and hay.

REPORT invasive species using the EDDMapS app or on EDDMapS.org.

Play Clean Go

PlayCleanGo.org

First Asian Giant Hornet report in U.S. (Washington State) was reported through EDDMapS App.

Center for Invasive Species and Ecosystem Health
UNIVERSITY OF GEORGIA

EDDMapS
Early Detection & Distribution Mapping System

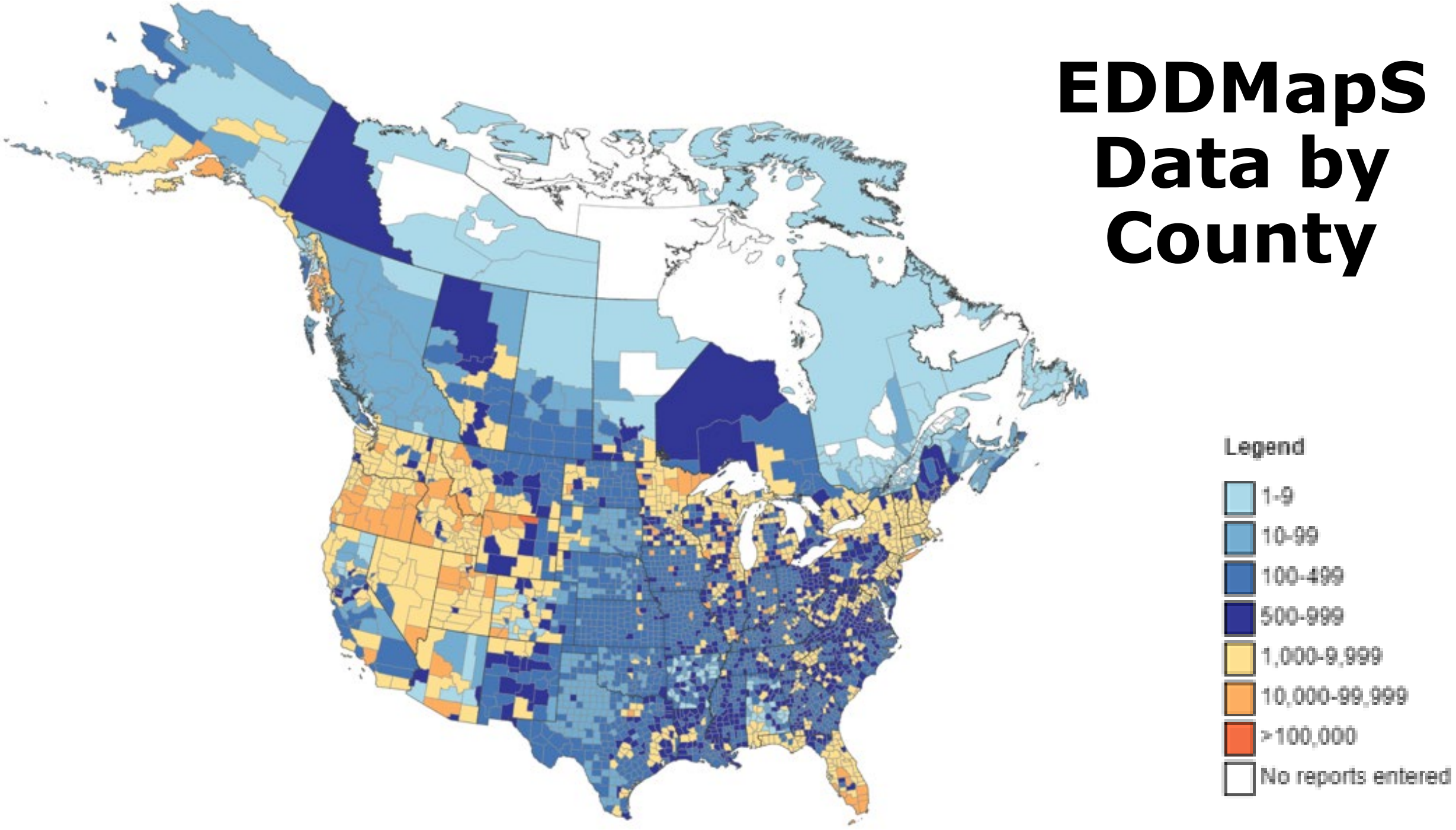
Asian giant hornet
Vespa mandarinia Smith, 1852

Record ID: 8304192

Original Reported Subject	unknown insect
Reporter	Jeff Kornelis
Observation Date	December 08, 2019
Date Entered	December 08, 2019
Date Updated	May 04, 2020
Updated By	Justin Bush Washington Invasive Species Council
Source Type	Web Report
Locality	9369 Dahl Ln. Blaine, WA 98230
Location	Whatcom, Washington, United States
Coordinates	48.98120,-122.68915
Infestation Status	Positive
Verification Method	Specimens
Identification Credibility	Corrected
Observation Identifier	Washington State Department of Agriculture
Identification Date	December 19, 2018
Reviewed	Verified
Reviewer	Justin Bush

I found the insect dead on the concrete patio this morning. I'll save the body in case it's needed for any reason. My father in law mentioned after showing him that he'd seen another one flying after the dead one was found, but I didn't see it. I posted pictures to an insect identification reddit page and the consensus is that it's an asian giant hornet. I'd love to hear what the official I.D. ends up being. Thanks!

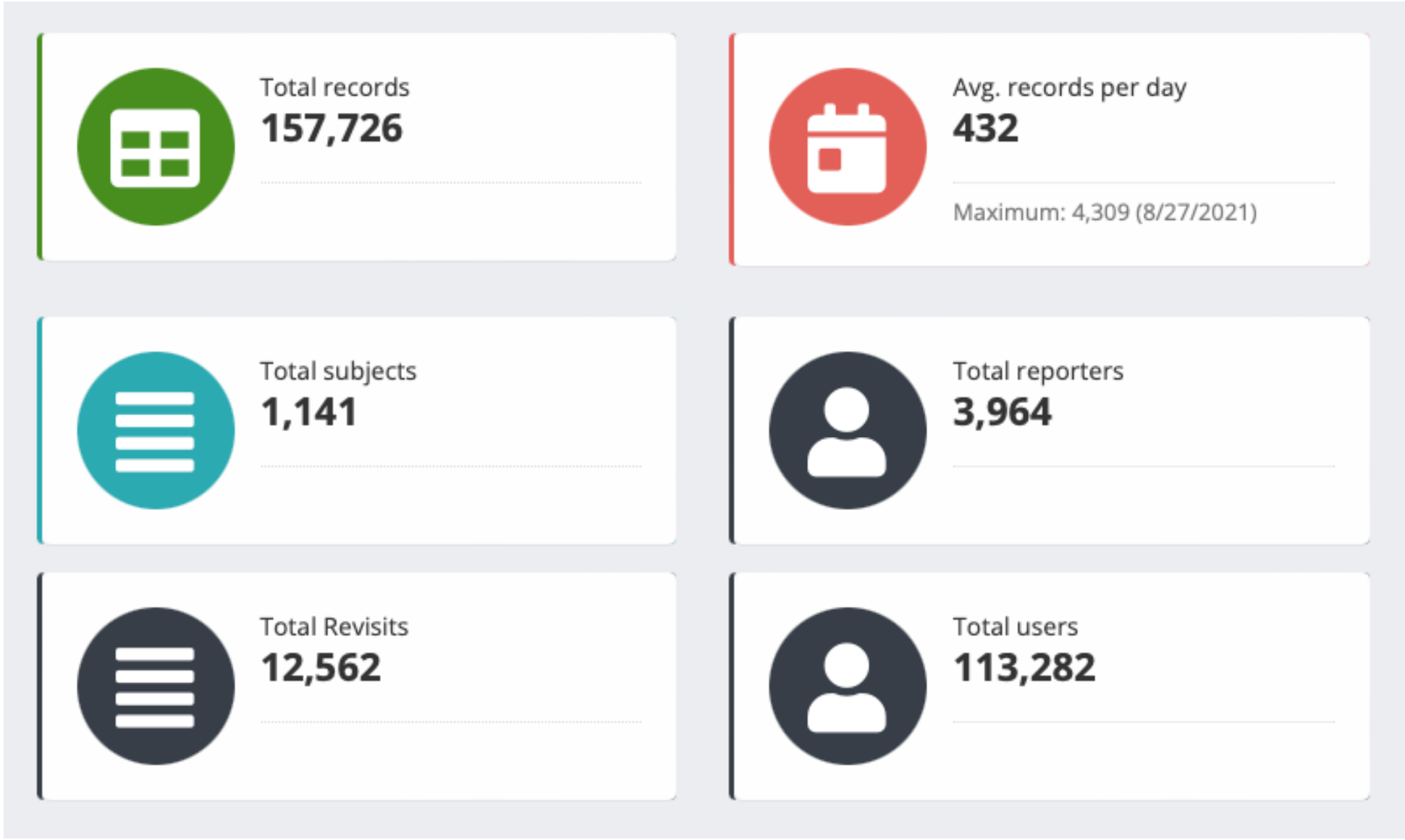
EDDMapS Data by County



EDDMapS Primary External Funding

Summary Statistics

Center for Invasive Species and Ecosystem Health
UNIVERSITY OF GEORGIA



December 2020 – December 2021

Reports by State

Center for Invasive Species and Ecosystem Health
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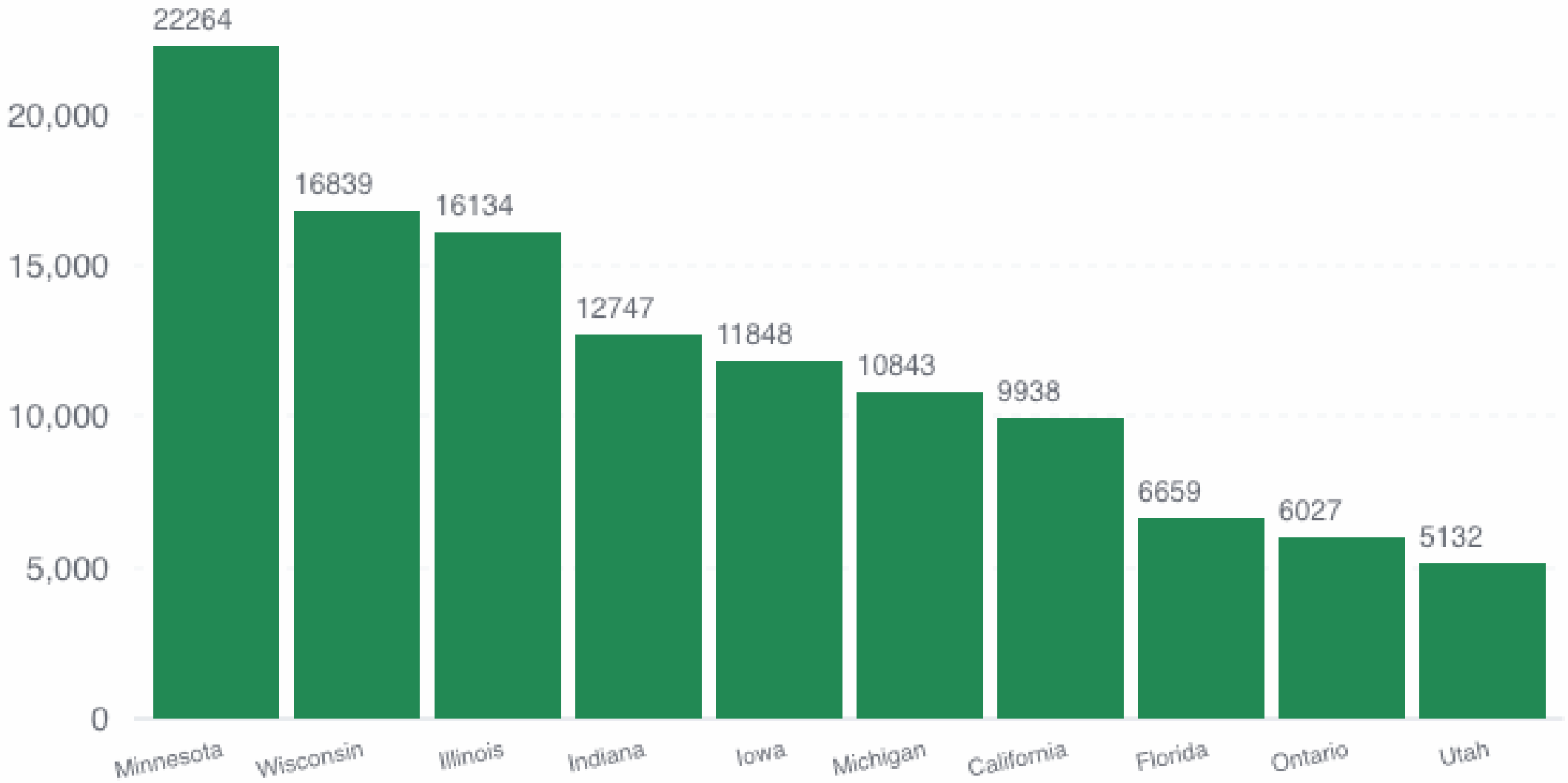

December 2020 – December 2021

Key Points

- Build Partnerships
- Make it Easy
- Use EDRR as an Educational Tool
- Build Rapid Response Infrastructure
- Show your Successes
- Use the Tools that are Available to You

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Remember Your Goals

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Map It

Document the Problem/Population

Zap It

Treat the population(s)

Map It Again

Track your progress.

Repeat

Continue to document and treat.

Eradication

Remember the goal is not to map.

Bugwood Team

Center for Invasive Species and Ecosystem Health
UNIVERSITY OF GEORGIA

Joe LaForest

Associate Director
Co-Director Southern IPM Center
M.S. Entomology and Plant Pathology

IPM Programs and IT Lead

Rachel Carroll

Citizen Science Coordinator
M.S. Natural Resource Ecology and Management

Hired to focus on Wild Spotter, took over First Detector and helps with layout and design

Rebekah Wallace

Lead Program Coordinator
M.S. Weed Science

Technical writing and social media

EDDMapS and Image Systems

Jordan Daniel
Smartphone Application Programmer

Krunal Patel
Smartphone Application Programmer

Bilal Bush
Web Application Programmer

Sai Dasari
Web Application Programmer

Triston Hansford
GIS Assistant

Sarah Jean Swain
Communication Coordinator

Salina McAllister
Administrative Associate

NAISMA

NORTH AMERICAN INVASIVE SPECIES MANAGEMENT ASSOCIATION

EDDMapS

find · map · track

Summit 2022

March 23, 2022?

Save the Date!

2022 Annual Conference

Sanibel Harbour Marriott Resort & Spa
Fort Myers, Florida
November 7-10, 2022

- 30 minutes from SW Florida International Airport
- Field trips to Sanibel Island, Ding Darling National Wildlife Refuge and more
- 1.5 hours to the Everglades & Big Cypress National Preserve

EDD MapS

find · map · track

Thank You

Go Dawgs!

cbargero@uga.edu