

**SAIN nbii** Southern Appalachian Information Node

## Status of Consolidated Invasive Plant Web Mapping

Presented by:  
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## NBII – National Biological Information Infrastructure


- USGS funded program
- Mission: to provide increased access to data and information on the nation's biological resources
- Web-based Network (nbii.gov) with Regional and Thematic "Nodes"

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## SAIN – Southern Appalachian Information Node

- A Regional "Node" of the NBII network
- Mission: gateway to biological information in Southern Appalachia
- States: AL, KY, MS, TN

<http://sain.nbii.org>



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## SAIN and Partners:

Government	Academic	Non-Profit	Corporate
     	    	 	

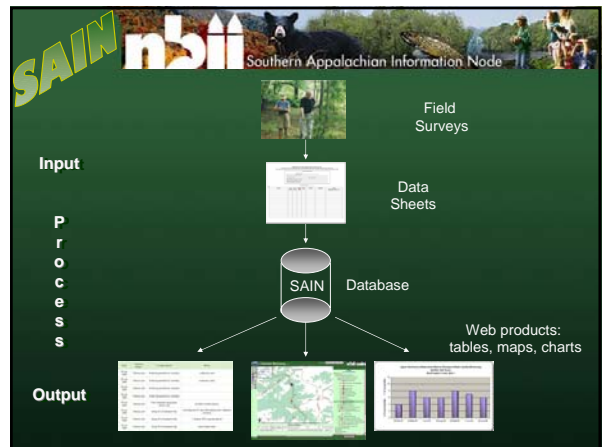
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## Prototype Partner: SAVEM

Southern Appalachian Volunteer Environmental Monitoring

Invasive Plant Surveys



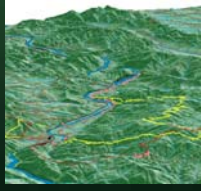


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## Web Products Produced by SAIN for Invasive Plants

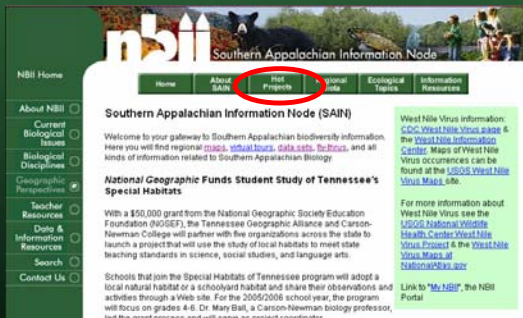
- Tabular reports
- Maps (3 types)
- Downloadable GIS data
- Metadata
- 3D visualizations

Overlooking Hot Springs, North Carolina



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## SAIN Website



**Southern Appalachian Information Node (SAIN)**

Welcome to your gateway to Southern Appalachian biodiversity information. Here you will find regional [maps](#), [web tours](#), [data sets](#), [forums](#), and all kinds of information related to Southern Appalachian biology.

**National Geographic Funds Student Study of Tennessee's Special Habitats**

With a \$50,000 grant from the National Geographic Society Education Foundation (NGSEF), the Tennessee Geographic Alliance and Carson-Newman College will partner with five organizations across the state to launch a project that will use the study of local habitats to meet state teaching standards in science, social studies, and language arts.

Schools that join the Special Habitats of Tennessee program will adopt a local natural habitat or a schoolyard habitat and share their observations and activities through a Web site. For the 2005/2006 school year, the program will focus on grades 4-6. Dr. Mary Ball, a Carson-Newman biology professor, led the grant process and will serve as project coordinator.

West Nile Virus information: [SAIN West Nile Virus page](#) & the [West Nile Information Center](#). Maps of West Nile Virus occurrences can be found at the [USGS West Nile Virus Maps](#) site.

For more information about West Nile Virus see the [USGS National Wildlife Health Center West Nile Virus Project](#) & the [West Nile Virus Maps of National Wildlife Health Center](#).

Link to "nbiil", the NBI Portal

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## Bio-Inventory and Monitoring Projects

(Scroll down)

**Southern Appalachian Volunteer Environment Monitoring (SAVEM)**

SAIN is assisting the Southern Appalachian Man and the Biosphere (SAMAB) program with their volunteer monitoring project. Go to their [SAVEM web site](#) to find out more about the project and their [invasive species data](#) and [water quality](#) surveys. Or visit our [SAIN SAVEM page](#) to directly access the web products we are developing for the SAVEM project.

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## Bio-Inventory and Monitoring Projects

**Oriental Bittersweet in North Carolina: A Controversy**

Oriental bittersweet is an aggressive, invasive climbing vine. The [North Carolina Department of Agriculture and Consumer Services](#) recently added Oriental bittersweet to the [State Noxious Weed List](#). With this listing, the sale and distribution of this plant in North Carolina would be prohibited, reducing its rate of spread and its impact on native plants and natural areas. However, crafters who make wreaths and floral arrangements from the dried vines and berries oppose the ban, saying the 18 western counties are already so infested that the ban wouldn't matter. SAIN has produced a map showing where Oriental bittersweet ([Colaptes.us/colaptes](#)) has been found to occur in several surveys of mountainous western North Carolina as part of the [SAIN Oriental Bittersweet project](#) (download a [gif](#), a [jpeg](#), or a [small](#) version of the map). Information on the map is being used to resolve a disagreement between natural resource managers and craft makers who use the vine for wreaths and floral arrangements. SAIN is pursuing additional occurrence data for Oriental bittersweet and for other invasive exotic plants, in North Carolina and other southern states. Contact [Robb Turner](#).

**Data Sources:**  
NPS, USFS, ecologists, volunteers

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## Oriental Bittersweet in W. NC

**Oriental Bittersweet Occurrences**  
Initial Assessment of Western North Carolina Counties



**Legend**

- Location uncertain, Oriental Bittersweet found
- Location uncertain, Oriental Bittersweet NOT found
- Major roads
- County boundaries
- Prohibited areas, governmental land areas

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## Bio-Inventory and Monitoring Projects

(Scroll down)

**Invasive Plants Regional Geographic Information System**

SAIN is creating a geographic information system from regional invasive plants data sets provided by Federal agencies and other partners. Go to our [Regional Invasive Plants project page](#) to learn more.

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**Regional Invasive Plants Project**

SAIN is creating a geographic information system from regional invasive plants data sets provided by Federal agencies and other partners.

Here is what you can do with maps...

View Invasive Plant Static Map | Create your own Regional Invasive Plants map | Experience an Regional Interactive Map

Here is what you can do with invasive plants...

Data Entry | Search the Regional Invasive Plant Database | Download Regional Invasive Plant GIS Data and Metadata

Documentation/Metadata

- Database description for Invasive Plants
- Create your own SAIN map Full Help file

Map Type: 1 2 3

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**Maps**  
Type 1 : Static Maps (PDF, JPEG)

- PDFs have (Adobe Printable Document Files) zoom capability and best print quality

Nantahala Project Area Invasive Plant Sites

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**Maps**  
Type 2 : Make-a-Map

- Easy step-by-step process

Create Your Own SAVEM Maps

4 easy steps, create your own map from data collected by SAIN's Southern Appalachian Invasive Environmental Monitoring

You will be asked to complete four steps:

- Select the type of volunteer monitoring survey (species-rich stream survey)
- Select a project area (Mount Rogers Upper Workunit)
- Select map features (streams, sites, or other background items)
- Create the Map

Start creating your own SAVEM map!

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**Maps**  
Type 2 : Make-a-Map

- Map is created dynamically
- Output is a static web map
- Link to the advanced web map (Type 3)

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**Maps**  
Type 3 : Advanced Interactive Map

- Uses GIS technology (Geographic Information System) via ESRI's ArcIMS (Internet Map Server)
- Dynamic interaction with map and data
- Recommend high speed internet connection

Volunteer Monitoring

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Spreadsheet Template (coming soon) or use XMS

North American Weed Management Association Standards

Documentation/Metadata

- Database description for Invasive Plants
- Create your own SAIN map Full Help file

**Regional Invasive Plants**

Please select the invasive plants you would like to view:

COMMON NAME	SCIENTIFIC NAME
<input type="checkbox"/> Select All	
<input type="checkbox"/> Chinese Yam	<i>Dioscorea oppositifolia</i>
<input type="checkbox"/> English Ivy	<i>Hedera helix</i>
<input type="checkbox"/> Dutch Man-of-war	<i>Azorella maritima</i>
<input type="checkbox"/> Japanese Honeylocust	<i>Lonchocarpus japonicus</i>
<input type="checkbox"/> Japanese Knotweed	<i>Polygonum cuscutifolium</i>
<input type="checkbox"/> Japanese Stinkgrass	<i>Microstegium chinense</i>
<input type="checkbox"/> Kudzu	<i>Pueraria montana</i>
<input type="checkbox"/> Mimosa	<i>Albizia julibrissin</i>
<input type="checkbox"/> Multiflora Rose	<i>Rosa multiflora</i>
<input type="checkbox"/> Oriental Bittersweet	<i>Celastrus orbiculatus</i>
<input type="checkbox"/> Oriental Broomrape	<i>Epiphyllum ovatum</i>
<input type="checkbox"/> Tree of Heaven	<i>Ailanthus altissima</i>

Please use the navigation in the interface. Using your browser's Back button may cause an error.

[plants.usda.gov](http://plants.usda.gov)   [itis.usda.gov](http://itis.usda.gov)

**Regional Invasive Plants Report**

You may click on a column header to view the data dictionary description for that column.  
 To sort all records based on the data in a specific column, click the 'sort' button under that column name.  
 To change how the number of columns displayed, check the boxes underneath only those columns you want, and press the 'Show selected fields' button.

Showing selected fields:

COLLECTOR DATE	GENUS	SPECIES	AUTHORITY	COMMON NAME	PLANT CODE	INVASIVE AREA	DATE OF MEASURE	CANOPY COVER	NATIONAL OCCURRENCE	SOURCE OF THE DATA	COUNTRY	STATE PROVINCE
20021017	Hedera	helix	English ivy	English ivy	20003	100	Square Feet			SAVEM	United States	TN
20021017	Hedera	helix	English ivy	English ivy	20003		Square Feet			SAVEM	United States	TN
20020006	Hedera	helix	English ivy	English ivy	20003		Square Feet			SAVEM	United States	TN
20020006	Hedera	helix	English ivy	English ivy	20003		Square Feet			SAVEM	United States	TN
20021019	Hedera	helix	English ivy	English ivy	20003		Square Feet			SAVEM	United States	TN
20021019	Hedera	helix	English ivy	English ivy	20003		Square Feet			SAVEM	United States	TN
20020017	Hedera	helix	English ivy	English ivy	20003	1000	Square Feet			SAVEM	United States	TN

**Download GIS Data**

These are the Primary GIS data layers for SAVEM Invasive Plants:

GIS Data Set	Data Provider	FGDC Metadata	Download Data	Description
SAVEM Invasive Plants	SAMAD Southern Appalachian Volunteers Environmental Monitoring program	HTML or XML format	WebSpeed ESRI Shapefile	Invasive plant sites (points) located by volunteers for all SAVEM project areas. Coordinates in Geographic, NAD83 datum. Size: 800kb
SAVEM Monitoring Segments / Routes	SAMAD Southern Appalachian Volunteers Environmental Monitoring program	HTML or XML format	WebSpeed ESRI Shapefile	Line segments proposed or already surveyed by volunteers for all SAVEM project areas. Coordinates in Geographic, NAD83 datum. Size: 500kb
SAVEM Significant Natural Areas	SAMAD Southern Appalachian Volunteers Environmental Monitoring program	HTML or XML format	WebSpeed ESRI Shapefile	Generalized natural areas with sensitive species near areas surveyed by volunteers for all SAVEM project areas. Coordinates in Geographic, NAD83 datum. Size: 500kb
SAVEM Invasive Plant Project Area Bounding Boxes	NBI Southern Appalachian Information Node	HTML or XML format	WebSpeed ESRI Shapefile	Approximated regional bounding rectangles in polygon format for use with regional scale map only. Coordinates in Geographic, NAD83 datum. Size: 50kb

**FGDC Metadata**

via NBII Metadata Clearinghouse

SAIN Home: Home, About SAIN, NBII Programs, Regional Data, Ecological Studies, Information Resources, Search

**Southern Appalachian Information Node (SAIN)**

Welcome to your gateway to Southern Appalachian biodiversity information. Here you will find regional maps, natural history, GIS data, photos, and all kinds of information related to Southern Appalachian Biology.

The Southern Appalachian Man & the Biosphere (SAMAB) is hosting its 15th Annual Conference in Gatlinburg, Tennessee. Go to the [SAIN's site](#) for more information.

The Discover Life in America, Inc. at the Great Smoky Mountains National Park is hosting its 39th Annual Taxa Biodiversity Inventory Annual Conference November 7-10, 2014. [Registration details](#)

SAMAB, the Appalachian Forest Resources Center, the Land Trust for the U.S., Tennessee, and the National Forest Foundation are co-sponsoring the 4th Eastern Environmental Monitoring in Appalachia Conference November 4-6, 2014 at the Conference Center, Bristol, VA. This symposium focuses on building citizen environmental monitoring programs in your forest.

West Nile Virus information: [CDC West Nile Virus page](#) & [The State Health Department Center Maps of West Nile Virus Occurrence can be found at the USGS National Wetland Inventory.](#)

For more information about West Nile Virus see the [USGS National Wetland Inventory Center Online Data View Page](#) & the [West Nile Virus Data](#).

**Status of Regional Consolidation**

- Focusing on:
  - Oriental bittersweet
  - Japanese honeysuckle
  - Purple loosestrife
- Need GIS data contributions to be successful
- And at least annual updates

**Questions?**

<http://sain.nbi.org>

Please also visit [SaveOurHemlocks.org](http://SaveOurHemlocks.org)