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The Pulling Together Initiative

A Texas-sized Partnership to Manage Invasive Plants

Southeast Exotic Pest Plant Council
7th Annual Conference
May3-5, 2005
Birmingham, AL

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Presentation Outline

- Scope of the Problem
- About the Partnership
- Texas Forest Service Initiatives
- NBII/HARC Initiatives
- Wildflower Center Initiatives
- Collaborative Projects
- Other Initiatives
- The Pulling Together Initiative
- Acknowledgements

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Problem Scope

How Many Invasive Species Are There in Texas?

- 67 terrestrial plants
- 12 aquatic/wetland plants
- 10 mammals
- 4 birds
- 7 fishes
- 11 insects
- 11 mollusks and crustaceans

Rauschuber C. 2002. List of invasive species in Texas. Appendix to Invasive Species - Texas. Compiled from many sources.

Texas economy is dependent on industries that affected by invasive species.

- Agriculture - $3.35 billion
- Ranching - $8.59 billion
- Fishing - $293 million dollars
- Mariculture - $600 million
- Tourism
- Real Estate

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Problem Scope

The Worst of the Worst

- Saltcedar (*Tamarix* spp.)
- Hydrilla (*Hydrilla verticillata*)
- Giant Salvinia (*Salvinia molesta*)
- Red Imported Fire Ant *(Solenopsis invicta)*
- Nutria *(Myocaster coypus)*
- Channeled Applesnail *(Pomacea canaliculata)*

Not Yet Established

- Snakehead fish (Family Channidae)
- Brown tree snake (*Boiga irregularis*)
- Asian lake mussel (*Limnoperna fortunei*)

Texas has no single authority that addresses invasive species policy.

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About the Partnership

Texas Forest Service - Assure that the state's forest, tree, and related natural resources are wisely used, nurtured, protected, and perpetuated for the benefit of all.

Forest Health Protection - Forest Service specialists provide technical assistance on forest health-related matters.

National Biological Information Infrastructure - NBII links biological databases to answer questions related to the management, use, or conservation of the Nation's biological resources.

Houston Advanced Research Center - Dedicated to improving human and ecosystem well-being through the application of sustainability science and principles of sustainable development.

Lady Bird Johnson Wildflower Center - Protects and conserves North America's native flora by educating people about the environmental necessity, economic value, and natural beauty of native plants.

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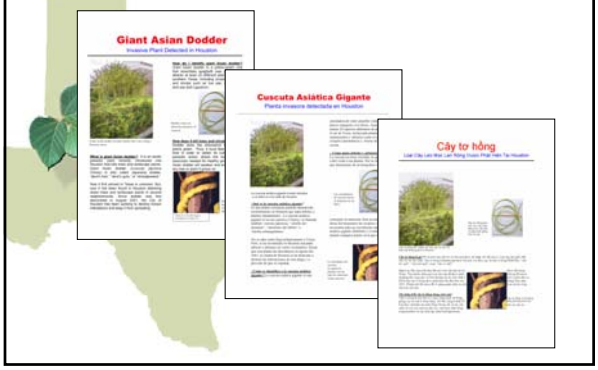
Texas Forest Service

Invasive Forest Pests
A New Pest Management Initiative to address invasive non-native pests that threaten the state's forest resources.

- Cooperative project with the City of Houston to eradicate giant Asian dodder, *Cuscuta japonica*, from neighborhoods.
- Nursery and perimeter surveys with USDA Forest Service and Texas A&M University to detect *Phytophthora ramorum*, the pathogen responsible for sudden oak death (SOD).
- Organized SOD Task Force to increase cooperation among involved federal, state, and private agencies in Texas.
- Numerous fact sheets describing invasive plants, insects, and diseases.
- Surveys for Formosan termites and exotic ambrosia beetles.

Texas Forest Service

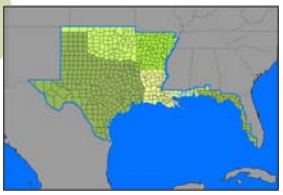


Texas Forest Service

HARC/NBII

Central Southwest/Gulf Coast Information Node (CSWGCIN)

- Regional Invasive Species Database
- Regional Invasive Species Bibliography
- Galveston Bay Invasive Species Risk Assessment Project
- Galveston Bay Status and Trends Project
- Galveston Bay Ecological Indicators Project
- Chinese Tallow Invasion of the CSWGC Region
- Invasive of the Month Archive
- Regional Biological Research Collections



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Education - National Geographic's Strange Days on Planet Earth Early Detection Citizen Science Initiative.

Research - *Rapistrum rugosum*, *Bothriochloa ischaemum.*

Advocacy - National Environmental Coalition on Invasive Species, Plant Conservation Alliance, Native Plant Conservation Campaign, Center for Plant Conservation.

Restoration - Wildflower Center Grounds, Town Lake Trail Project, Consulting Projects.

Outreach - Native Plant Information Network Native Plants Database and Image Gallery, Native Plants Magazine.

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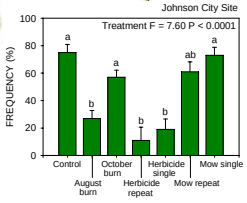
Research

Rapistrum rugosum - Bullying the bullies, over-seeding natives to out-compete bastard cabbage.

Bothriochloa ischaemum - The response of King Ranch bluestem to mowing, burning, and herbicide in Central Texas.



Native Plant Information Network
www.wildflower2.org

Outreach

Native Plants Database
Searchable database of 7,175 native plant species.

Image Gallery
Searchable database of 17,000+ plant images.

National Suppliers Directory
Directory of 2,500 Nurseries, Landscape Professionals, and Seed Companies.

National Organizations Directory
Directory of over 500 plant-minded organizations.

National Events Calendar
National Calendar of plant-related events.

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Oak Wilt Information Partnership
www.texasoakwilt.org

Goal: Deliver Oak Wilt information resources for public and professional use via the world wide web.

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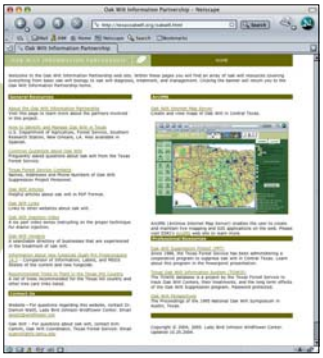
Oak Wilt Information Partnership
www.texasoakwilt.org

Resources

- About the Partnership
- How to Identify and Manage Oak Wilt
- Common Questions about Oak Wilt
- Texas Forest Service Contacts
- Oak Wilt Articles
- Oak Wilt Links
- Oak Wilt Injection Video
- Oak Wilt Vendors
- Recommended Trees
- Oak Wilt Internet Map Server
- Oak Wilt Suppression Project (PPT)
- Texas Oak Wilt Information System
- Oak Wilt Perspectives



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Oak Wilt Information Partnership
www.texasoakwilt.org

ARC IMS

- ArcView Internet Map Server enables users to create live mapping applications on the web.
- Maps of 12 central Texas counties from TFS Aerial Flight Surveys.
- Open IMS System.

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Texas Forest Threats
www.forestpest.org

Purpose: Distribute scientifically accurate invasive plant information to the general public and land management professionals via the World Wide Web.

Goal: Create an alien plant/forest pest web portal containing images and information on pest and pathogen biology, diagnosis, treatment, and management.

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Texas Forest Threats
www.forestpest.org

Threat Database - Biological, Ecological, Geographical, Historical, and Taxonomic information on 56 invasive plant species.

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Texas Forest Threats
www.forestpest.org

ARC IMS

- ArcView Internet Map Server enables users to view county level distribution maps.
- Open IMS System.

Texas Riparian Association

Texas Department of Agriculture

TITLE 4.AGRICULTURE. Part 1. TEXAS DEPARTMENT OF AGRICULTURE. Chapter 19. QUARANTINES AND NOXIOUS PLANTS

§19.300.Noxious Plant List.

Botanical Name - **Common Name**

Orobanche ramosa - broomrape
Alhagi camelorum - camelthorn
Triadica sebiferum - Chinese tallow tree
Cyperus entrerianus - deeprooted sedge
Carthamus lanatus - distaff thistle
Myriophyllum spicatum - Eurasian watermilfoil
Spirodela oligorrhiza - giant duckweed
Arundo donax - giant reed
Calystegia sepium - hedge bindweed
Hydrilla verticillata - hydrilla
Rottboellia cochinchinensis - itchgrass
Cuscuta japonica - Japanese dodder

Botanical Name - **Common Name**

Pueraria montana var. *lobata* - kudzu
Lagarosiphon major - lagarosiphon
Melaleuca quinquenervia - paperbark
Lythrum salicaria - purple loosestrife
Eichhornia azurea - rooted waterhyacinth
Tamarix spp. - Saltcedar
Salvinia spp. - Salvinia
Nassella trichotoma - Serrated tussock
Panicum repens - Torpedograss
Solanum viarum - Tropical soda apple
Ipomoea aquatica - water spinach
Cryptocoryne beckettii - water trumpet
Eichhornia crassipes - waterhyacinth
Pistia stratiotes - waterlettuce
Alternanthera philoxeroides - alligatorweed
Cardiospermum halicacabum - balloonvine
Schinus terebinthifolius - Brazilian peppertree

Texas Riparian Invasive Plant Task Force (TXRIP)

TXRIP Focus

- Identify existing water bodies with invasive riparian and aquatic plant problems.
- Determine the severity of the problem.
- Develop treatment and management plans, both short and long term.
- Identify, prioritize, and allocate sources of funding where it will be the most beneficial.
- Identify and organize subcommittees/subgroups based on specific rivers/river segments.
- Involve local stakeholders.

Pulling Together Initiative

PTI Goals

1. Organize and host the first conference in Texas on non-native invasive plants.
2. Expand the *Texas Forest Threat* web site to disseminate educational, geospatial, and biological invasive plant information within the state of Texas.
3. Standardize inventorying and monitoring invasive plant datasets.
4. Develop invasive plant modules for training land management professionals.
5. Organize a cadre of volunteers to assist in the identification and geographic location of invasive plants throughout the state.
6. Identify and distribute information about demonstration areas for best practices in invasive plant diagnosis and management.
7. Identify and map locations of invasive plant species on the Jones and Siecke state forests in east Texas and develop management plans for the dominant invasive species (e.g., Japanese climbing fern, Chinese tallow, etc.).

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Conference Scope

- Current State of our IS Knowledge
- Build on Previous Conferences
- Professional/Educational Level
- Issue Legislative, Regulatory and Academic Updates
- Plants Only (Terrestrial, Aquatic, Riparian)
- Develop Pre-conference Plants Lists (Top 20)
- Develop Methods/Guidelines to Identify and Report IS
- Involve all Stakeholders
- Take an Eco-regional Approach

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Conference Content

- Management Plans (BMPs), Objectives, and Control Methods
- What are Other States Doing (EPPCs, IPCs)?
- National/Federal Initiatives
- Public Education
- How to Form a Statewide Council
- Species Reports
- Funding Opportunities (including Federal)
- Data/Information Sharing integrated with National resources

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Conference Deliverables

- Proceedings
- Punch List of Invasive Plants
- State Recommendations
- Website (Central Repository/Register)
- Strategic Plan
- A Means to Keep Information Current

Conference Structure

- Concurrent Sessions
- Invited Papers (Abstracts)
- Invited Speakers and Keynote Address
- Working Groups
- Exhibitors

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Agencies	NGOs
Lower Colorado River Authority	Botanical Research Institute of Texas
Texas Adjutant General's Office (TX National Guard)	Dallas Arboretum
Texas Agricultural Experiment Station	Houston Advanced Research Center
Texas Commission on Environmental Quality	Lady Bird Johnson Wildflower Center
Texas Cooperative Extension	Magnolia Gardens Nursery
Texas Department of Agriculture	Plant Resources Center, UT Austin
Texas Department of Transportation	Texas Nursery and Landscape Association
Texas Forest Service	
Texas Parks and Wildlife	
US Fish and Wildlife Service	
USDA Forest Service (Region 8)	
USDA, APHIS, PPQ	

Acknowledgements

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Texas Forest Service, College Station, TX

- Ron Billings
- Kim Camilli
- Dale Starkey

Houston Advanced Research Center, Houston, TX

- Stephanie Glenn
- Lisa Gonzalez
- Jim Lester

Lady Bird Johnson Wildflower Center, Austin, TX

- Mark Simmons
- Joe Marcus