



South Carolina Exotic Pest Plant Council



State Early Detection and Rapid Response System Non-Native Invasive Plants Committee Work Plan

Draft Date: November 7, 2008

- I. State EDRR Coordinating Committee Chairs and Members
- II. Target EDRR Species - Early Detection Species; Rapid Response Species
- III. State EDRR Detection and Reporting Network
- IV. Rapid Assessment Guidelines
- V. Rapid Response Initiatives

Appendix 1. State, Regional, and National EDRR Information Systems (Data Archival)

Appendix 2. State Geographical Index

I. State Terrestrial EDRR Coordinating Committee Chairs and Committee Members

Committee Co-Chairs: - EDRR Work Plan - Weed Management Areas - Weed Task Forces	Randy Westbrooks, rwestbrooks@intrstar.net Phone: 910-648-6762 Robin Mackie, rmackie@fs.fed.us Phone: 803-561-4071
Early Detection Volunteer Network: - Directory of Network Members - EDRR Training	Sandy Friedman, USDA APHIS PPQ George Kessler, Clemson University Evangeline Long, APHIS PPQ Native Plant Society Member, TBD Mary Douglass, APHIS PPQ mary.g.douglass@aphis.usda.gov Sudie Daves, USDA NRCS, St. Matthews, SC Sudie.daves@scusda.gov Bill Hulslander, bill_hulslander@nps.gov Barbara Daniels, Daniels@KOkudzu.com
Specimen Identification and Vouchering: - Cadre of Designated Botanists - Application of Digital Photography	Initial Digital Specimen ID: Joel Gramling, The Citadel, joel.gramling@citdel.edu Herrick Brown, University of South Carolina John Nelson, University of SC-Columbia, nelson@biol.sc.edu Jan Haldeman, Erskine College, haldeman@erskine.edu Doug Rayner, Wofford University, RaynerDA@Wofford.Edu Charlie Horn, Newberry College, chorn@newberry.edu Jim Luken, Coastal Carolina University, joluken@coastal.edu John Schmidt, Winthrop University, schmidtj@winthrop.edu Potential Regulated Species – Immediately Contact for Guidance: Plant Problem Clinic - Clemson University (864-656-2677)
Rapid Assessment (new invaders): - Literature Reviews - Field Assessment Team	Randy Westbrooks, USGS, rwestbrooks@intrstar.net
Rapid Response/ Public and Private Conservation Lands: - Invasive Plant Task Forces - Rapid Response Action	Randy Westbrooks, rwestbrooks@intrstar.net Brett Moule, MouleB@dnr.sc.gov Meredith Malone, mmalone@tnc.org Robin Mackie, USDA FS

Plans - Private Land Issues	Bill Hulslander, NPS Matt Nespeca, Conservation Land Co, Inc., Charleston, SC
Weed Regulatory Issues	Ken Glenn, USDA APHIS, Columbia, SC, William.K.Glenn@aphis.usda.gov Steve Compton, Clemson University, DPI, scompto@CLEMSON.EDU
EDRR Outreach and Education: - EDRR Website - Speakers Bureau	Meredith Malone, TNC Randy Westbrooks, USGS (PPT Slides) Sudie Daves, NRCS Alex Gregg, NPS (EDRR Web Page Master) Ken Glenn, APHIS Evangeline Long, APHIS Steve Compton, Clemson

II. EDRR Target Species – November, 2008

	Regulated Species:	EDRR Zones of Concern
State Early Detection (ED) Species (Non-native invasive plants which threaten but are not known to occur in South Carolina)	1. <u>Benghal Dayflower (<i>Commelina benghalensis</i>)</u>	All
	2. <u>Giant Hogweed (<i>Heracleum mantegazzianum</i>)</u>	M, P
	3. <u>Giant Salvinia (<i>Salvinia molesta</i>)</u> (Eradicated from Colleton County in 1995)	All
	4. <u>Goatsrue (<i>Galega officinalis</i>)</u>	All
	5. <u>Japanese Dodder (<i>Cuscuta japonica</i>)</u> (Eradicated from the Clemson Arboretum in 1994)	All
	6. <u>Small Broomrape (<i>Orobanche minor</i>)</u> (Eradicated from Erskine College Campus in 1993)	All
	7. <u>Winged Euonymous (<i>Euonymous alata</i>)</u> (MP)	M, P
	Other ED Species:	
	8. <u>Canada Thistle (<i>Cirsium arvense</i>)</u>	M, P
	9. <u>Chocolate Vine (<i>Akebia quinata</i>)</u>	M, P
	10. <u>Deeprooted Sedge (<i>Cyperus enterianus</i>)</u>	All
	11. <u>Garlic Mustard (<i>Alliaria petiolata</i>)</u>	M, P
	12. <u>Bushkiller (<i>Cayratia japonica</i>)</u>	P
	13. <u>Oriental Bittersweet (<i>Celastrus orbiculatus</i>)</u>	M, P
	14. <u>Old World Climbing Fern (<i>Lygodium microphyllum</i>)</u>	P, CP
15. <u>Purple Loosestrife (<i>Lythrum salicaria</i>)</u>	M, P	
State Rapid Response Species (Non-native invasive plants which are limited in distribution yet potentially pose a threat to SC resources)	Regulated Species:	EDRR Zones of Concern
	16. <u>Cogongrass <i>Imperata cylindrica</i></u>	All
	17. <u>Common Reed (<i>Phragmites australis</i>)</u>	CP
	18. <u>Hydrilla (<i>Hydrilla verticillata</i>)</u>	All
	19. <u>Tropical Soda Apple (<i>Solanum viarum</i>)</u>	All
	20. <u>Tropical Spiderwort (<i>Commelina bengalensis</i>)</u>	P, CP
	21. <u>Witchweed (<i>Striga asiatica</i>)</u>	All
	Other EDRR Species:	
	22. <u>Beach Vitex (<i>Vitex rotundifolia</i>)</u>	CP
	23. <u>Japanese Knotweed (<i>Polygonum cuspidatum</i>)</u>	All
24. <u>Saltcedar (<i>Tamarix</i> sp.)</u>	CP	
25. <u>Japanese Climbing Fern (<i>Lygodium japonicum</i>)</u>	All	

*EDRR Zones of Concern: Blue Ridge Mountains (M), Piedmont (P), , Coastal Plain (CP), or All

State Early Detection Species (Not Known to Occur in South Carolina)	State Rapid Response Species (New Invasive Plants that can be Eradicated)
Regulated Species:	Regulated Species:
1. Benghal Dayflower (<i>Commelina benghalensis</i>)	16. Cogongrass <i>Imperata cylindrica</i>
2. Giant Hogweed (<i>Heracleum mantegazzianum</i>)	17. Common Reed (<i>Phragmites australis</i>)
3. Giant Salvinia (<i>Salvinia molesta</i>) (Eradicated from Colleton County in 1995)	18. Hydrilla (<i>Hydrilla verticillata</i>)
4. Goatsrue (<i>Galega officinalis</i>)	19. Tropical Soda Apple (<i>Solanum viarum</i>)
5. Japanese Dodder (<i>Cuscuta japonica</i>) (Eradicated from the Clemson Arboretum in 1994)	20. Tropical Spiderwort (<i>Commelina bengalensis</i>)
6. Small Broomrape (<i>Orobanche minor</i>) (Eradicated from Erskine College Campus in 1993)	21. Witchweed (<i>Striga asiatica</i>)
7. Winged Euonymous (<i>Euonymous alata</i>) (MP)	
Other Early Detection Species:	Other EDRR Species:
8. Canada Thistle (<i>Cirsium arvense</i>)	22. Beach Vitex (<i>Vitex rotundifolia</i>)
9. Chocolate Vine (<i>Akebia quinata</i>)	23. Japanese Knotweed (<i>Polygonum cuspidatum</i>)
10. Deeprooted Sedge (<i>Cyperus enterianus</i>)	24. Saltcedar (<i>Tamarix</i> sp.)
11. Garlic Mustard (<i>Alliaria petiolata</i>)	25. Japanese Climbing Fern (<i>Lygodium japonicum</i>)
12. Bushkiller (<i>Cayratia japonica</i>)	
13. Oriental Bittersweet (<i>Celastrus orbiculatus</i>)	
14. Old World Climbing Fern (<i>Lygodium microphyllum</i>)	
15. Purple Loosestrife (<i>Lythrum salicaria</i>)	

III. State EDRR Detection and Reporting Network (Contact Directory of Agency Field Personnel and Trained Volunteers).

Partner Agencies	Field Personnel - Contact Information
The Nature Conservancy	Colette Degarady, cdegarady@TNC.ORG Meredith Malone, mmalone@tnc.org
The SC Native Plant Society	John Brubaker, brubakerj@tds.net Jan Haldeman, haldeman@erskine.edu Mary Morrison, mwmorrison@fs.fed.us
Beach Vitex Task Force	Betsy Brabson, wbrabson@sccoast.net
Cogongrass Task Force	George Kessler, gksslr@CLEMSON.EDU
USDA APHIS	Ken Glenn, William.K.Glenn@aphis.usda.gov Evangeline Long Sandy Friedman
USDA Forest Service	Robin Mackie, rmackie@fs.fed.us
USDA NRCS	Sudie Davis, sudie.daves@sc.usda.gov Elyse Bensen, elyse.benson@sc.usda.gov
U.S. Geological Survey	Randy Westbrook, rwestbrooks@intrstar.net
U.S. Fish and Wildlife Service	Tera Baird tera_baird@fws.gov
USDI National Parks	Bill Hulslander, bill_hulslander@nps.gov
Ft. Jackson	Mark Dutton, mark.dutton@us.army.mil
SC DNR	Brett Moule, MouleB@dnr.sc.gov
SCDNR – Aquatics Task Force	Steve DeKozlowski, DeKozlowskiS@dnr.sc.gov
SC PRT	Stan Hutto

SC Forestry Commission	Laurie Reid, SCFC, lreid@forestry.state.sc.us
SC DOT	Kelly Jo Swygert, SC-DOT swygertkj@scdot.org
Clemson University	Steve Compton, scompto@CLEMSON.EDU

IV. Rapid Assessment Guidelines

A. Rapid Assessment Target Species:	As Applicable
B. Rapid Assessment Guidelines (Evaluation of New Exotic Plants for Invasiveness)	<ol style="list-style-type: none"> a. Identity, Biology, Ecology b. Current Distribution (World, U.S., State EDRR Zones of Concern) c. History of Invasiveness d. Regulatory Status (other Countries, Federal, State, Local) e. Pathways of Introduction and Spread f. Impacted Stakeholders and Resources g. Potential Stakeholders and Resources h. Control/Containment/Eradication Methods i. Potential for Success as an EDRR Initiative (Total Eradication from EDRR Zones of Concern) j. Estimated Cost of Eradication/Acre k. Potential Funding Sources l. Short Term/Long Terms Impacts if no action is taken.

V. Rapid Response Initiatives – Eradication of Confirmed EDRR Target Species

A. Established Cooperative Weed Management Areas	ALL
B. Established Invasive Plant Eradication Task Forces (e.g., Carolinas Beach Vitex Task Force, Cogongrass Task Force)	<p>Carolinas Beach Vitex Task Force Betsy Brabson, Coordinator, Georgetown, SC – 843-546-9531); wbrabson@sccoast.net</p> <p>South Carolina Cogongrass Task Force Dr. George Kessler, Clemson University gksslr@CLEMSON.EDU</p>
C. Established Agency Invasive Plant Eradication Programs	<p>USDA APHIS – Clemson University Witchweed Eradication Program Ricky Horne, PPQ Officer – richard.c.horne@aphis.usda.gov</p> <p>Clemson University, Department of Plant Industry Steve Compton, scompto@CLEMSON.EDU</p> <p>USDA Forest Service Robin Mackie rmackie@fs.fed.us</p> <p>USDI Congaree National Park Bill Hulslander bill_hulslander@nps.gov</p> <p>The Nature Conservancy, Matt Nespeca, mnespeca@tnc.org</p> <p>SCDNR Lands,</p>

Appendix 1. State, Regional, and National EDRR Information Systems (Archival of Invasive Plant Distribution Records).

National Level	<p>USDA Plants Database http://plants.usda.gov/</p> <p>APHIS National Agricultural Pest Information System (NAPIS) http://ceris.purdue.edu/napis/</p> <p>- USGS NBII EDRR Framework http://edrr.nbii.gov/portal/server.pt</p>
Regional Level	<p>- Invasive Plant Atlas of the New England (www.ipane.org) Les Mehrhoff, Director, U-CONN, 860-486-5708; les.mehrhoff@uconn.edu</p> <p>- Invasive Plant Atlas of the Mid-South (MS State University) (http://www.gri.msstate.edu/ipams/) John Madsen, Director, MS State; 662-325-2428); jmadsen@gri.msstate.edu</p> <p>- Invaders Database System (Northwest- University of Montana, Missoula) http://invader.dbs.umt.edu/ Peter Rice, Director, University of Montana; (406) 243-2671; peter.rice@umontana.edu</p>
State and Regional Level	<p>- EDDMAPS @ http://se-eppc.org</p>

Appendix 2. State Geographical Index (Natural and Administrative Land Units to help in identifying habitats at risk, impacted and potential stakeholders, as well as responsible agencies and organizations).

NATURAL AND ADMINISTRATIVE LAND UNITS			
Political Subdivisions	State	South Carolina – Official Website: http://www.sc.gov/	
	Counties	http://www.sciway.net/cnty/	
	Cities, Towns, Villages	http://en.wikipedia.org/wiki/Category:Cities_in_South_Carolina	
Local Land Units	Public Lands	National Parks, Monuments, Battlefields in SC	http://www.discoversouthcarolina.com/parks/nationalparks.aspx
		SC Parks and Historic Sites	www.southcarolinaparks.com
		SC DNR Managed Lands	www.dnr.sc.gov/conservation.html
		National Wildlife Refuges in SC	http://www.fws.gov/southeast/maps/sc.html
		National Forests in SC	Francis Marion & Sumter NF @ www.fs.fed.us/r8/fms/
		Natural Resource Conservation Service	http://www.sc.nrcs.usda.gov/
		SC State Forests	http://www.state.sc.us/forest/recreat.htm
		Military Installations	http://www.sciway.net/gov/mil_bases.html
		DOE Lands	Savannah River Site http://www.srs.gov/general/srs-home.html
		Federal and State DOT	http://www.scdot.org/resources/default.shtml
	Private Lands	TNC Ecological Preserves	http://www.nature.org/wherewework/northamerica/states/southcarolina/
SC Land Trusts		http://sccbanc.sc.gov/entitlandtrust.html	