# Florida Exotic Pest Plant Council's 2011 List of Invasive Plant Species

**Purpose of the List:** *To focus attention on —* 

- the adverse effects exotic pest plants have on Florida's biodiversity and native plant communities,
- the habitat losses in natural areas from exotic pest plant infestations,
- the impacts on endangered species via habitat loss and alteration,
- ▶ the need for pest-plant management,
- the socio-economic impacts of these plants (e.g., increased wildfires or flooding in certain areas),
- changes in the severity of different pest plant infestations over time,
- providing information to help managers set priorities for research and control programs.

#### **CATEGORY I**

Invasive exotics that are altering native plant communities by displacing native species, changing community structures or ecological functions, or hybridizing with natives. This definition does not rely on the economic severity or geographic range of the problem, but on the documented ecological damage caused.

		FLEPPC	Gov.	Reg.
Scientific Name	Common Name	Cat.	List	Dist.
Abrus precatorius	rosary pea	I	N	C, S
Acacia auriculiformis	earleaf acacia	I		C, S
Albizia julibrissin	mimosa, silk tree	I		N, C
Albizia lebbeck	woman's tongue	I		C, S
Ardisia crenata (A. crenulata misapplied)	coral ardisia	I		N, C, S
Ardisia elliptica (A. humilis misapplied)	shoebutton ardisia	I	N	C, S
Asparagus aethiopicus (A. sprengeri; A. densiflorus misapplied)	asparagus-fern	I		N, C, S
Bauhinia variegata	orchid tree	I		C, S
Bischofia javanica	bishopwood	I		C, S
Calophyllum antillanum (C. calaba and C. inophyllum misapplied)	santa maria, mast wood, Alexandrian laurel	I		S
Casuarina equisetifolia	Australian-pine, beach sheoak	I	P, N	N, C, S
Casuarina glauca	suckering Australian-pine, gray sheoak	I	P, N	C, S
Cinnamomum camphora	camphor tree	I		N, C, S
Colocasia esculenta	wild taro	I		N, C, S
Colubrina asiatica	lather leaf	I	N	S
Cupaniopsis anacardioides	carrotwood	I	N	C, S
Deparia petersenii	Japanese false spleenwort	I		N, C
Dioscorea alata	winged yam	I	N	N, C, S
Dioscorea bulbifera	air-potato	I	N	N, C, S
Eichhornia crassipes	water-hyacinth	I	P	N, C, S
Eugenia uniflora	Surinam cherry	I		C, S
Ficus microcarpa (F. nitida and F. retusa var. nitida misapplied) <sup>1</sup>	laurel fig	I		C, S
Hydrilla verticillata	hydrilla	I	P, U	N, C, S
Hygrophila polysperma	green hygro	I	P, U	N, C, S
Hymenachne amplexicaulis	West Indian marsh grass	I		N, C, S
Imperata cylindrica (I. brasiliensis misapplied)	cogon grass	I	N, U	N, C, S
Ipomoea aquatica	water-spinach	I	P, U	С
Jasminum dichotomum	Gold Coast jasmine	I		C, S
Jasminum fluminense	Brazilian jasmine	I		C, S
Lantana camara (= L. strigocamara)	lantana, shrub verbena	I		N, C, S
Ligustrum lucidum	glossy privet	I		N, C
Ligustrum sinense	Chinese privet, hedge privet	I		N, C, S
Lonicera japonica	Japanese honeysuckle	I		N, C, S
Ludwigia peruviana	Peruvian primrosewillow	I		N, C, S
Lumnitzera racemosa	kripa; white-flowered mangrove; black mangr	ove I		S
Luziola subintegra	Tropical American water grass	I		S
Lygodium japonicum	Japanese climbing fern	I	N	N, C, S
Lygodium microphyllum	Old World climbing fern	I	N, U	C, S

<sup>1</sup>Does not include Ficus microcarpa subsp. fuyuensis, which is sold as "Green Island Ficus"

### FLEPPC List Definitions:

Exotic – a species introduced to Florida, purposefully or accidentally, from a natural range outside of Florida.

Native – a species whose natural range includes Florida.

Naturalized exotic – an exotic that sustains itself outside cultivation (it is still exotic; it has not "become" native).

Invasive exotic – an exotic that not only has naturalized, but is expanding on its own in Florida native plant communities.

#### **Abbreviations:**

Government List (Gov. List): P = Prohibited aquatic plant by the Florida Department of Agriculture and Consumer Services;

N = Noxious weed listed by Florida Department of Agriculture & Consumer Services;

U = Noxious weed listed byU.S. Department of Agriculture.

Regional Distribution (Reg. Dist.): N = north, C = central, S = south, referring to each species' current distribution in general regions of Florida (not its potential range in the state). Please refer to the map below.



### Changes to the 2011 List:

#### **New Listings to Category I:**

#### Deparia petersenii

(Japanese false spleenwort)
Documented in numerous near
exotic-free ravines in the central
panhandle, it is displacing native flora
and likely insect populations because
it forms extremely dense colonies.
Documented in seven Florida counties.

#### Lumnitzera racemosa

(black mangrove)
This Asian mangrove has spread abundantly following plantings at Fairchild Tropical Botanical Garden in Miami-Dade County between 1966 and 1971. The species subsequently spread into mangrove forests at Fairchild and the adjacent Matheson Hammock Park, infesting 19 acres with stem densities exceeding that of native mangrove species. Looks very similar to the protected native white mangrove (Laguncularia racemosa).

#### Phymatosorus scolopendria

(serpent fern, wart fern)
This fern, native to tropical Asia,
Africa, and Polynesia, has been
documented naturalizing in three
south Florida counties. It is invading
rockland hammocks and forested
wetlands where it displaces native
understory species including
endangered ferns.

#### **New Listings to Category II:**

Ardisia japonica (Japanese ardisia) Ardisia japonica is a plant species from Japan. Thirteen populations have been located in San Felasco Hammock in Alachua County, two more at the Loblolly Nature Center in Gainesville, and another one containing 3,000 to 4,000 plants in Florida Caverns State Park in the Florida panhandle. All of the infestations are in undisturbed mature upland hardwood forest with healthy, diverse ground cover that is displaced as it spreads by underground rhizomes. Fruits collected from these populations produced viable seedlings.

Scientific Name	Common Name	FLEPPC Cat.	Gov. List	Reg. Dist.
Macfadyena unguis-cati	cat's claw vine	I		N, C, S
Manilkara zapota	sapodilla	I		S
Melaleuca quinquenervia	melaleuca, paper bark	I	P, N, U	C, S
Melinis repens (= Rhynchelytrum repens)	Natal grass	I		N, C, S
Mimosa pigra	catclaw mimosa	I	P, N, U	C, S
Nandina domestica	nandina, heavenly bamboo	I		N, C
Nephrolepis brownii (= N. multiflora)	Asian sword fern	I		C, S
Nephrolepis cordifolia	sword fern	I		N, C, S
Neyraudia reynaudiana	Burma reed, cane grass	I	N	S
Nymphoides cristata	snowflake	I		C, S
Paederia cruddasiana	sewer vine, onion vine	I	N	S
Paederia foetida	skunk vine	I	N	N, C, S
Panicum repens	torpedo grass	I		N, C, S
Pennisetum purpureum	Napier grass	I		N, C, S
Phymatosorus scolopendria	serpent fern, wart fern	I		S
Pistia stratiotes	water-lettuce	I	P	N, C, S
Psidium cattleianum (= P. littorale)	strawberry guava	I		C, S
Psidium guajava	guava	I		C, S
Pueraria montana var. lobata (= P. lobata)	kudzu	I	N	N, C, S
Rhodomyrtus tomentosa	downy rose-myrtle	I	N	C, S
Rhynchelytrum repens (See Melinis repens)				
Ruellia simplex²	Mexican petunia	I		N, C, S
Salvinia minima	water spangles	I		N, C, S
Sapium sebiferum (= Triadica sebifera)	popcorn tree, Chinese tallow tree	I	N	N, C, S
Scaevola taccada (= Scaevola sericea, S. frutescens)	scaevola, half-flower, beach naupaka	I	N	C, S
Schefflera actinophylla (= Brassaia actinophylla)	schefflera, Queensland umbrella tree	I		C, S
Schinus terebinthifolius	Brazilian-pepper	I	P, N	N, C, S
Scleria lacustris	Wright's nutrush	I		C, S
Senna pendula var. glabrata (= Cassia coluteoides)	climbing cassia, Christmas cassia, Christmas senna	I		C, S
Solanum tampicense (= S. houstonii)	wetland nightshade, aquatic soda apple	I	N, U	C, S
Solanum viarum	tropical soda apple	I	N, U	N, C, S
Syngonium podophyllum	arrowhead vine	I		N, C, S
Syzygium cumini	jambolan plum, Java plum	I		C, S
Tectaria incisa	incised halberd fern	I		S
Thespesia populnea	seaside mahoe	I		C, S
Tradescantia fluminensis	small-leaf spiderwort	I		N, C
Urena lobata	Caesar's weed	I		N, C, S
Urochloa mutica (= Brachiaria mutica)	Para grass	I		C, S

#### **CATEGORY II**

Invasive exotics that have increased in abundance or frequency but have not yet altered Florida plant communities to the extent shown by Category I species. These species may become ranked Category I, if ecological damage is demonstrated.

Common Name	FLEPPC Cat.	Gov. List	Reg. Dist
red sandalwood	II		S
sisal hemp	II		C, S
tung oil tree	II		N, C
devil tree	II		S
alligator weed	II	P	N, C, S
coral vine	II		N, C, S
Japanese ardisia	II		N
calico flower	II		N, C, S
Ganges primrose	II		C, S
wax begonia	II		N, C, S
	red sandalwood sisal hemp tung oil tree devil tree alligator weed coral vine Japanese ardisia calico flower Ganges primrose	Common Name  Cat.  red sandalwood  II  sisal hemp  II  tung oil tree  II  devil tree  III  alligator weed  II  Japanese ardisia  III  Ganges primrose  Cat.  II  II  III  III  III  III  III  II	red sandalwood II sisal hemp II tung oil tree II devil tree II alligator weed II proceed II Japanese ardisia II calico flower II Ganges primrose II

<sup>&</sup>lt;sup>2</sup>Many names are applied to this species in Florida because of a complicated taxonomic and nomenclatural history. Plants cultivated in Florida, all representing the same invasive species, have in the past been referred to as *Ruellia brittoniana*, *R. tweediana*, *R. caerulea*, and *R. simplex*.

Scientific Name	Common Name	FLEPPC Cat.	Gov. List	Reg. Dist.
Blechum pyramidatum (see Ruellia blechum)				
Broussonetia papyrifera	paper mulberry	II		N, C, S
Bruguiera gymnorrhiza	large-leaved mangrove	II		S
Callisia fragrans	inch plant, spironema	II		C, S
$Callistemon\ viminalis\ (=Melaleuca\ viminalis)$	bottlebrush, weeping bottlebrush	II		C, S
Casuarina cunninghamiana	river sheoak, Australian-pine	II	P	C, S
Cecropia palmata	trumpet tree	II		S
Cestrum diurnum	day jessamine	II		C, S
Chamaedorea seifrizii	bamboo palm	II		S
Clematis terniflora	Japanese clematis	II		N, C
Cocos nucifera	coconut palm	II		S
Cryptostegia madagascariensis	rubber vine	II		C, S
Cyperus involucratus (C. alternifolius misapplied)	umbrella plant	II		C, S
Cyperus prolifer	dwarf papyrus	II		C, S
Dactyloctenium aegyptium	Durban crowfootgrass	II		N, C, S
Dalbergia sissoo	Indian rosewood, sissoo	II		C, S
Elaeagnus pungens	silverthorn, thorny olive	II		N, C
Elaeagnus umbellata	silverberry, autumn olive	II		N
Epipremnum pinnatum cv. Aureum	pothos	II		C, S
Ficus altissima	false banyan, council tree	II		S
Flacourtia indica	governor's plum	II		S
Hemarthria altissima	limpo grass	II		C, S
Hibiscus tiliaceus (See Talipariti tiliaceum)				
Hyparrhenia rufa	jaragua	II		N, C, S
Ipomoea carnea ssp. fistulosa (= I. fistulosa)	shrub morning-glory	II	P	C, S
Kalanchoe pinnata (= Bryophyllum pinnatum)	life plant	II		C, S
Koelreuteria elegans ssp. formosana (= K. formosana; K. paniculata misapplied	flamegold tree	II		C, S
Landoltia punctata (= Spirodela punctata)	Spotted duckweed	II		N, C, S
Leucaena leucocephala	lead tree	II	N	N, C, S
Limnophila sessiliflora	Asian marshweed	II	P, U	N, C, S
Livistona chinensis	Chinese fan palm	II		C, S
Melia azedarach	Chinaberry	II		N, C, S
Melinis minutiflora	Molassesgrass	II		C,S
Merremia tuberosa	wood-rose	II		C, S
Mikania micrantha	mile-a-minute vine	II	N, U	S
Murraya paniculata	orange-jessamine	II		S
Myriophyllum spicatum	Eurasian water-milfoil	II	P	N, C, S
Panicum maximum (= Urochloa maxima, Megathyrsus maximus)	Guinea grass	II		N, C, S
Passiflora biflora	two-flowered passion vine	II		S
Pennisetum setaceum	green fountain grass	II		S
Phoenix reclinata	Senegal date palm	II		C, S
Phyllostachys aurea	golden bamboo	II		N, C
Pittosporum pentandrum	Philippine pittosporum, Taiwanese cheesewoo	od II		S
Pteris vittata	Chinese brake fern	II		N, C, S
Ptychosperma elegans	solitaire palm	II		S
Rhoeo spathacea (see Tradescantia spathacea	)			
Ricinus communis	castor bean	II		N, C, S
Rotala rotundifolia	roundleaf toothcup, dwarf Rotala, redweed	II		S
Ruellia blechum	green shrimp plant, Browne's blechum	II		N, C, S
Sansevieria hyacinthoides	bowstring hemp	II		C, S
Sunsevieria nyaciminolaes				
Sesbania punicea	purple sesban, rattlebox	II		N, C, S

#### Bruguiera gymnorrhiza

(large-leaved mangrove)
This mangrove from the Old World
tropics is established at the Kampong, a
botanical garden in Miami-Dade County
where it was planted in 1940. The
leaves and propagules of this species
bear a strong resemblance to the native
red mangrove (*Rhizophora mangle*). In
a 2008 survey it was found naturalized
in mangrove forest on the property,
where 86 individuals were observed and
recruitment rates were higher than for
native species. There is a strong chance
that it will disperse to other nearby
mangrove forests.

Cocos nucifera (coconut palm) Coconut palm, ubiquitous along Florida's coastlines, is thought to be native to the Malay Peninsula or the South Pacific. This species has been found invading beach dune and coastal grassland communities in extreme south Florida and the Florida Keys. Plants form thick clusters and shed leaves that form dense layers on the ground, displacing native species. Impacted species include the federally threatened Garber's spurge (Chamaesyce garberi) in the Cape Sable area of Everglades National Park and nickerbean (Caesalpinia bonduc), the host plant for the endangered Miami Blue butterfly at Bahia Honda State Park.

### Mikania micrantha (mile-a-minute vine)

This vine of the American tropics is listed on the Federal Noxious Weed List because of invasiveness in other tropical regions. *M. micrantha* was first observed in Florida in 2008 in Miami-Dade County. It has since been observed at over two dozen sites throughout the Redland area of Miami-Dade County. It is primarily associated with agricultural sites, particularly container nurseries and tree farms, but has been found within the interiors of two rockland hammock fragments. It is a threat to

other natural areas in Miami-Dade County, and poses a very high risk of dispersing to other counties.

#### Syzygium jambos

(Malabar plum, rose apple)
This species was downgraded from the
Category II list in 2009 because of a
lack of data in EDDMapS, herbaria, and
observations of committee members.
However, data compiled by FNAI shows
62 records in 9 counties in mesic and
wet flatwoods, basin and floodplain
wetlands. It has been reinstated as a
Category II.

#### **Category Changes**

Jasminum sambac and Solanum jamaicense removed from Category II based on lack of data in natural areas. Urena lobata moved from Category II to Category I.

## Use of the FLEPPC List

The FLEPPC List of Invasive Plant Species is not a regulatory list. Only those plants listed as Federal Noxious Weeds. Florida Noxious Weeds or in local ordinances are regulated by law. FLEPPC encourages use of the Invasive Species List for prioritizing and implementing management efforts in natural areas, for educating lay audiences about environmental issues, and for supporting voluntary invasive plant removal programs. For more information on using the FLEPPC List of Invasive Plant Species, see Wildland Weeds Summer 2002 issue (Vol. 5, No. 3), pp. 16-17, or http://www.fleppc.org/list/list.htm

**NOTE:** Not all exotic plants brought into Florida become pest plants in natural areas. The FLEPPC List of Invasive Plant Species represents only about 11% of more than 1,400 exotic species that have been introduced into Florida and have subsequently established outside of cultivation. Most escaped exotics usually present only minor problems in highly disturbed areas (such as roadsides). And there are other exotics cultivated in Florida that are "well-behaved" — that is, they don't escape cultivation at all.



Scientific Name	Common Name	FLEPPC Cat.	Gov. List	Reg. Dist.
Solanum torvum	susumber, turkey berry	II	N, U	N, C, S
Sphagneticola trilobata (= Wedelia trilobata)	wedelia	II		N, C, S
Stachytarpheta cayennensis (= S. urticifolia)	nettle-leaf porterweed	II		S
Syagrus romanzoffiana (= Arecastrum romanzoffianum)	queen palm	II		C, S
Syzygium jambos	Malabar plum, rose-apple	II		N, C, S
Talipariti tiliaceum (= Hibiscus tiliaceus)	mahoe, sea hibiscus	II		C, S
Terminalia catappa	tropical-almond	II		C, S
Terminalia muelleri	Australian-almond	II		C, S
Tradescantia spathacea (= Rhoeo spathacea, Rhoeo discolor)	oyster plant	II		S
Tribulus cistoides	puncture vine, burr-nut	II		N, C, S
Vitex trifolia	simple-leaf chaste tree	II		C, S
Washingtonia robusta	Washington fan palm	II		C, S
Wedelia (see Sphagneticola above)				
Wisteria sinensis	Chinese wisteria	II		N, C
Xanthosoma sagittifolium	malanga, elephant ear	II		N, C, S

#### Citation example:

FLEPPC. 2011. List of Invasive Plant Species. Florida Exotic Pest Plant Council. Internet: http://www.fleppc.org/list/11list. htm or Wildland Weeds Vol. 14(3-4):11-14. Summer/Fall 2011.

#### The 2011 list was prepared by the FLEPPC Plant List Committee:

Keith A. Bradley – Chair (2006-present), The Institute for Regional Conservation, 22601 SW 152<sup>nd</sup> Ave., Miami, FL 33170, (305) 247-6547, bradley@regionalconservation.org

Janice A. Duquesnel, Florida Park Service, Florida Department of Environmental Protection, P.O. Box 1052, Islamorada, FL 33036, (305) 664-8455, Janice. Duquesnel@dep.state.fl.us

David W. Hall, Private Consulting Botanist, 3666 NW 13th Place, Gainesville, FL 32605, (352) 375-1370

Roger L. Hammer, Retired Naturalist and Author, 17360 Avocado Drive, Homestead, FL 33030, kaskazi44@comcast.net

Patricia L. Howell, Broward County Parks, Environmental Section, 950 NW 38th St., Oakland Park, FL 33309, (954) 357-8137, phowell@broward.org

Colette C. Jacono, USDA/APHIS/PPQ, 1911 SW 34th Street, Gainesville, FL 32608, (352) 258-4458, Colette.C.Jacono@aphis.usda.gov Kenneth A. Langeland, University of Florida-IFAS, Center for Aquatic and Invasive Plants, 7922 NW 71\*St., Gainesville, FL 32653, (352) 392-9614, gator8@ufl.edu

Chris Lockhart, Florida Natural Areas Inventory, c/o P.O. Box 243116, Boynton Beach, FL 33424-3116, (561) 738-1179, chris@lockharts.org

Gil Nelson, Gil Nelson Associates, 157 Leonard's Dr., Thomasville, GA 31792, gil@gilnelson.com

Robert W. Pemberton, Research Associate, Florida Museum of Natural History and Fairchild Tropical Botanic Garden, 2121 SW 28th Terrace, Fort Lauderdale, FL 33312, rpemberton5@gmail.com

Jimi L. Sadle, Everglades National Park, 40001 State Road 9336, Homestead, FL 33034, (305) 242-7806, Jimi\_Sadle@nps.gov Robert W. Simons, 1122 SW 11<sup>th</sup> Ave., Gainesville, FL 32601-7816

Daniel B. Ward, Department of Botany, University of Florida, 220 Bartram Hall, Gainesville, FL 32611

Richard P. Wunderlin, Institute for Systematic Botany, Dept. of Biological Sciences, University of South Florida, Tampa, FL 33620, (813) 974-2359, rwunder@cas.usf.edu

FLEPPC Database – The Florida Exotic Pest Plant Database contains over 211,000 sight records of infestations of FLEPPC Category I and Category II species in Florida public lands and waters. 143 species are recorded. Nearly all of the records are from local, state, and federal parks and preserves; a few records document infestations in regularly disturbed public lands such as highways or utility rights-of-way. Natural area managers and other veteran observers of Florida's natural landscapes submit these records, with many supported further by voucher specimens housed in local or regional herbaria for future reference and verification. New and updated observations can be submitted online at www.eddmaps. org/florida/. This database, along with other plant data resources such as the University of South Florida Atlas of Florida Vascular Plants at www.plantatlas.usf.edu, the Florida Natural Areas Inventory database at www.fnai.org, and The Institute for Regional Conservation Floristic Inventory of South Florida database at www.regionalconservation.org, provides important basic supporting information for the FLEPPC List of Invasive Plant Species.

Images of FLEPPC-listed species may be found at one or more of the following websites: University of South Florida Atlas of Florida Vascular Plants, www.plantatlas.usf.edu; the University of Florida Herbarium collection catalog, http://www.flmnh.ufl.edu/herbarium/cat/, and image gallery, http://www.flmnh.ufl.edu/herbarium/cat/imagesearch.asp; at Fairchild Tropical Botanic Garden's Virtual Herbarium, www.virtualherbarium.org/vhportal.html, The Robert K. Godfrey Herbarium at Florida State University, http://herbarium.bio.fsu.edu/index.php; the University of Florida's IFAS Center for Aquatic and Invasive Plants, http://plants.ifas.ufl.edu, and the USDA PLANTS database, http://plants.usda.gov/. Please note that greater success and accuracy in searching for plant information is likely if you search by scientific name rather than common name. Common names often vary in cultivation and across regions.