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# *Florida Invasive Streamside Plants*

Florida Department of Environmental Protection  
Standards and Assessment Section

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## *Stream/River Habitat Assessment*

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- 2 of the 4 Secondary Habitat Components relate to the riparian zone
  - Riparian zone buffer width
  - Riparian zone vegetation quality
- To assess the disturbance to the native plant community, it is important to be able to recognize and identify exotic taxa.



## *Definitions*

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- A **native plant** in Florida is one whose natural range included Florida at the time of European contact (~1500)
- An **exotic** plant is a plant that has been introduced to an area outside of its native range, either purposefully or accidentally
- An **invasive exotic** plant is one that can sustain itself outside of cultivation, and is expanding its range into natural areas and disrupting native plant communities





## *Florida Exotic Pest Plant Council*

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- Produces a list of invasive exotic plants in Florida which is updated every other year
- Invasive exotic species are divided into two groups. **Category 1:**  
*“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.”*





# *Florida Exotic Pest Plant Council*

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- **OR Category 2:**

“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.*”



# *Alternanthera philoxeroides*

- Alligator weed
- FLEPPC 2
- Opposite leaves
- Inconspicuous flwrs, white papery bracts
- Swollen and reddish at leaf nodes
- No teeth on leaves



# *Colocasia esculenta*

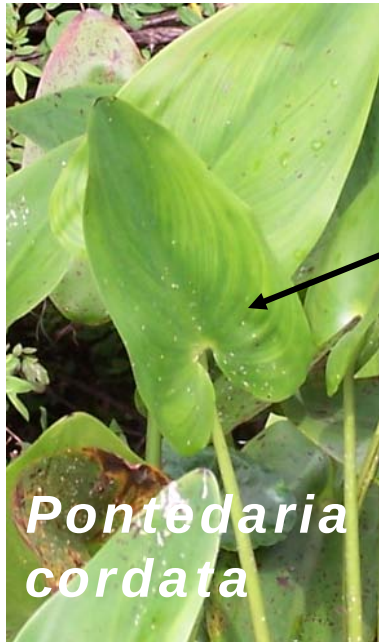
- Wild taro
- FLEPPC 1
- Edges of streams, rivers, swamps
- Arum family;  
Peltate leaf



*Colocasia esculenta*

Photo by Asit K. Ghosh

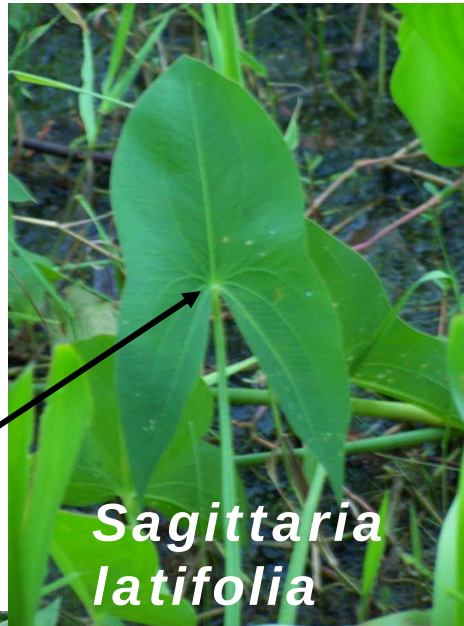
# Arrow-leaved Emergents



Parallel

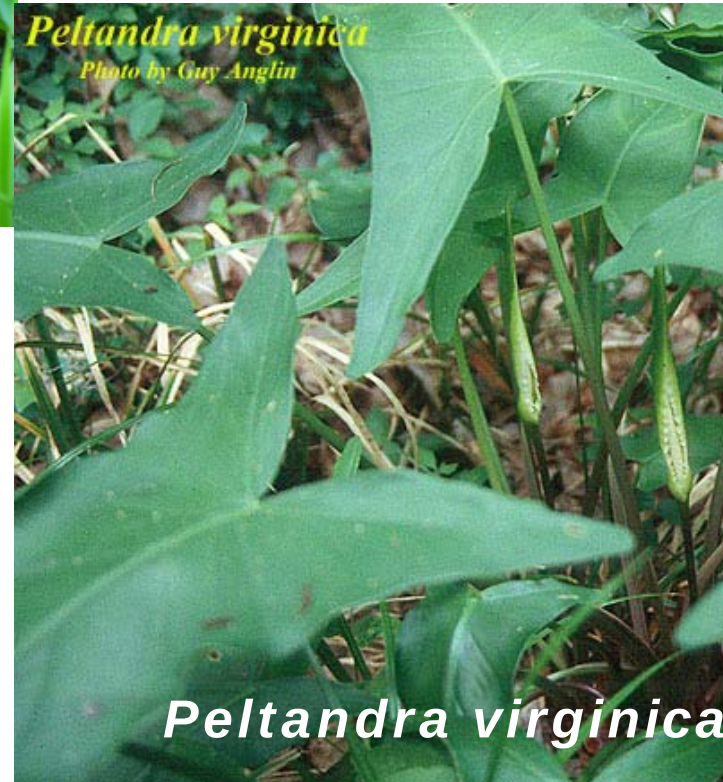
*Pontederia  
cordata*

Radiate  
From  
center



*Sagittaria  
latifolia*

Also radiates,  
but  
only at base



*Peltandra virginica*  
Photo by Guy Anglin

*Peltandra virginica*



Purple dot  
Wavy leaf

*Colocasia esculenta*

*Colocasia esculenta*  
Photo by Asit K. Ghosh

# *Xanthosoma sagittifolium*

- Elephant ear;  
FLEPPC 2
- Arum family
- Stream sides,  
rivers, swamps
- Large leaves (to  
1m in length)



*Xanthosoma sagittifolium*

Photo by Paul L. Redfearn, Jr.

***Eichhornia crassipes***

Photo and © by Roger Hammer  
Wildflowers of the Everglades



***Eichhornia crassipes***

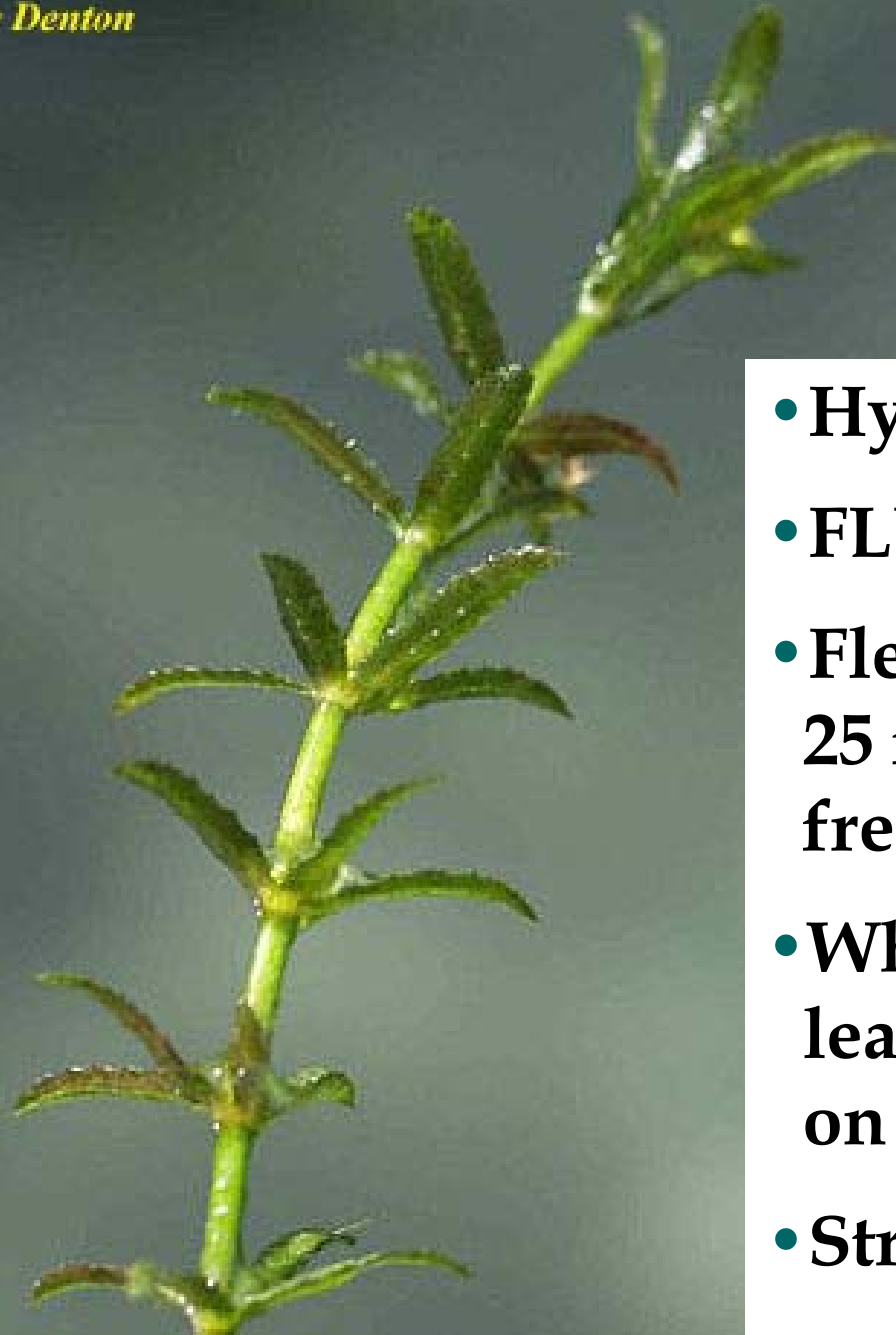
- Water-hyacinth
- FLEPPC 1
- Leaves elliptic, parallel-veined
- Petioles inflated, spongy
- Roots dark, fibrous
- Showy purple flower
- Floating units of leaves

***Eichhornia crassipes*, with *Pistia stratiodes***



# *Hydrilla verticillata*

*Photo by Shirley Denton*



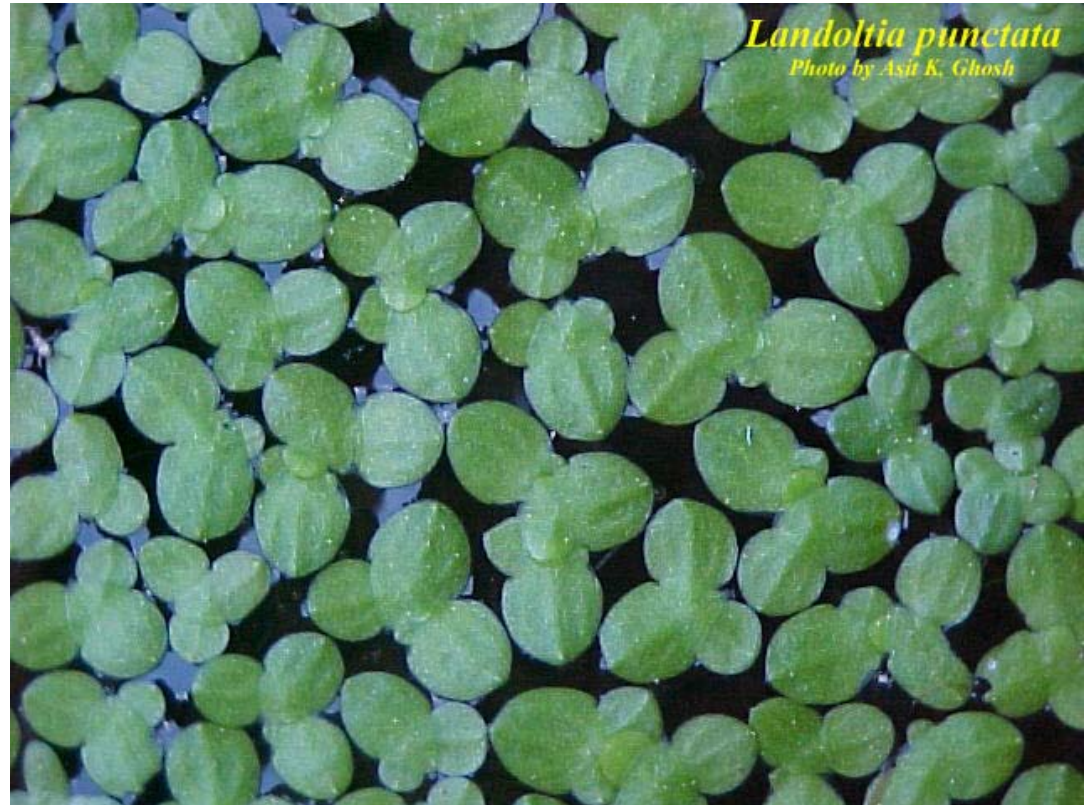
- Hydrilla
- FLEPPC 1
- Flexible stems up to 25 feet long, frequently branched
- Whorled pointed leaves (3-8) with teeth on edges and midrib
- Streams, lakes, canals



**Hydrilla, Lake Seminole, 9 / 2010**

# *Landoltia punctata*

- Spotted duckweed
- FLEPPC 2
- Roots >1 (2-5)
- Native *Lemna* =1 root; *Wolffia*, *Wolffiella*=no roots



*Salvinia minima* (water spangles)  
*FLEPPC 1* (new in 2009)



# *Ludwigia peruviana*

- Largest *Ludwigia* species, to 3 m tall
- FLEPPC 1
- Capsules pyramidal
- 4-5 petals, sepals
- Stem pubescent
- May form large thickets on lake shores, along roadsides



# *Ludwigia peruviana*



Peruvian water-primrose  
*Ludwigia peruviana*  
Photo by Vic Ramey  
Copyright 2001 Univ. Florida

# *Panicum repens* - Torpedograss

- Floating mats
- Bluish-green color
- Flowers purple and orange
- Rhizome tip pointed and white (torpedo-like)





Torpedo grass, *Panicum repens*



Torpedo grass, *Panicum repens* (center)

## *Imperata cylindrica*

- Cogon grass
- FLEPPC 1
- Stiff, upright grass
- Primarily upland, disturbed sites; steep stream sides and floodplains



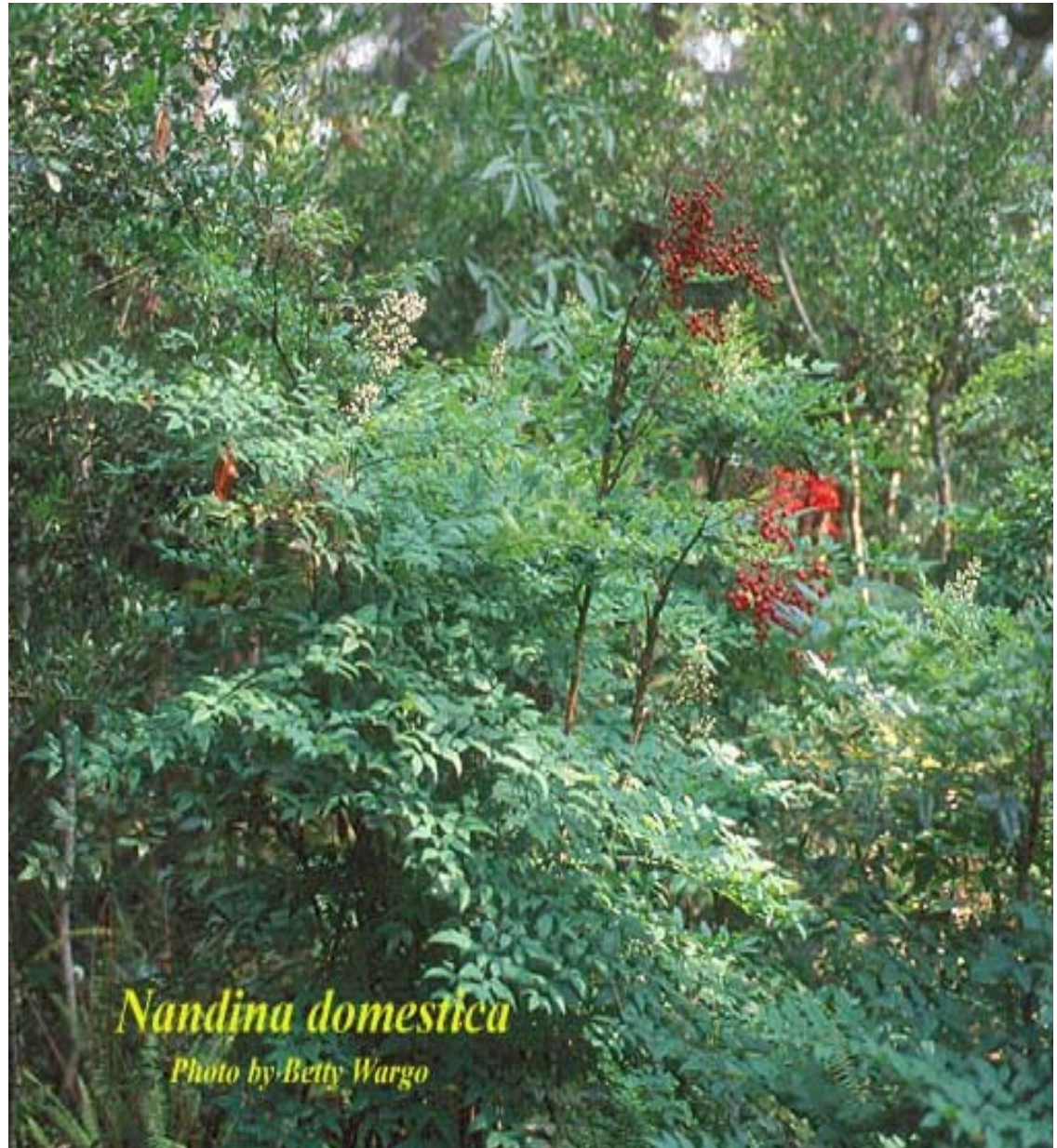
# *Ardisia crenata*

- Coral ardisia
- FLEPPC 1
- Understory shrub; evergreen
- Shiny dark green leaves with scalloped margins; red fruit
- Moist to wet forested areas



# *Nandina domestica*

- Heavenly bamboo
- FLEPPC 1
- Evergreen to semi-evergreen woody shrub
- Tri-pinnately compound leaves, White flowers, red fruit



*Nandina domestica*

Photo by Betty Wargo

# *Ruellia simplex* (formerly *brittoniana*)

- Mexican petunia
- FLEPPC 1
- Herbaceous perennial 3-4 ft.
- Wide variety of habitats incl. stream and river banks
- Flower color variable (white, pink, blue, purple)



# *Solanum tampicense*

- Aquatic soda apple
- FLEPPC 1
- Straggly and sprawling prickly shrub
- Woody below, herbaceous above
- Flowers white; fruit a tomato-like berry, red at maturity



***Solanum tampicense***

*Photo by Chelsie Vandaveer*



# *Urena lobata*

- Caesar's weed
- FLEPPC 2
- Erect shrub to 3m; palmately lobed, pubescent leaves
- Pink flowers; fruit with hooks or barbs
- Hibiscus family



# *Urena lobata*—habit

***Urena lobata***  
Photo by Patricia Howell



# *Sphagneticola trilobata*

- Creeping oxeye, Wedelia
- FLEPPC 2
- Fleshy leaves; forms thick groundcover
- Aster family



# *Sapium sebiferum*

- Chinese tallow, popcorn tree; FLEPPC 1
- Deciduous tree with red fall color; fruit a 3-lobed capsule 3 white seeds
- Euphorb family
- Invades wet to dry, disturbed to undisturbed



# *Cinnamomum camphora*

- Camphor tree
- FLEPPC 1
- Large evergreen; glossy lvs. with strong camphor scent; fruit a small black drupe
- Stout main stem with secondary trunks; forms dense shade



# *Ligustrum lucidum*

- Glossy privet
- FLEPPC 1
- Large shrub or tree with shiny, leathery opp. Lvs
- Fragrant white flowers; blue-black drupe
- Prolific fruit producer and root/stump sprouter



# *Ligustrum sinense*

- Chinese privet
- FLEPPC 1
- Smaller than *lucidum*, dull leaves, pubescent on lower midvein
- Can be variegated; reverts to all green once escaped
- Can invade river and stream banks, tolerates deep shade





*Ligustrum sinense* – Chinese Privet

# *Dioscorea bulbifera*

- Air-potato
- FLEPPC 1
- Vigorously twining herbaceous vine
- Heart-shaped leaves with rounded basal lobes; prominent venation
- flowers rare in FL
- Aerial tubers (bulbils) form in leaf axils; float, aiding in dispersal



*Dioscorea bulbifera*

photo by Glenn Fleming  
USF Herbarium Slide Collection

# *Lygodium japonicum*

- Japanese climbing fern
- FLEPPC 1
- Twining, climbing fronds; wiry rachis
- Compound pinnae; lobed leaflets
- Forms dense tangled masses over ground cover and shrubs; "walls" in tribes of Apalach floodplain

