Plants for Rain Gardens and Pond Edges

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Florida Extension Master Gardener
Continued Training Conference
October 26, 2010, 1:45 pm
Outline for Today...

• Rain Gardens
  – Site Selection
  – Plant Selection
  – Suggested Plant List

• Pond Edges
  – Transitional zone
  – Plant Selection
  – Suggested Plant List

• Other Considerations
A Rain Garden is...

a type of landscaped area with appropriate flowers, grasses and other vegetation that catches excess rain water from a roofline or gutter system and filters it back into the ground, where it can recharge groundwater resources.
Why Are Rain Gardens Important?

- Capture/increase water that filters into the soil.
- Reduce flooding and drainage problems.
- Capture and breakdown lawn fertilizers, pesticides and other substances.
- Reduce soil erosion.
- Enhance your yard with beautiful, low-maintenance plants.
- Attract birds, butterflies and other wildlife.
Rain Garden Site Selection

• Naturally low area that collects rainwater and runoff
• Area to which runoff can be directed
• Full sun
• Away from tree roots, septic tanks, wells, etc.
• At least 10 feet from buildings
Rain Garden – Type A

Deep basin planted with shrubs, tall grasses, ferns and perennials
Rain Garden – Type B

Dry creek with pebbles, river stone, boulders and plants
Rain Garden – Type C

Sloped depression on upper side with a berm on the lower side
Rain Garden Plant Selection

• Ability to survive prolonged wet conditions
• Ability to survive prolonged dry conditions
• Strong, expansive root systems
• Create visual interest
• Height diversity
• Attractive to wildlife
• Easy to maintain
Rain Garden Plant List

Goldenrod (*Solidago* spp.)
Milkweed (*Asclepias* spp.)
Canna (*Canna* spp.)
Swamp sunflower (*Helianthus angustifolius*)
Cinnamon fern (*Osmunda cinnamomea*)
Frog-fruit (*Phyla nodiflora*)
Carolina aster (*Aster carolinianus*)
Wiregrass (*Aristida stricta* var. *beyrichiana*)
Elephant ears (*Alocasia* spp.)*
A Stormwater Pond is...

- Part of the infrastructure for land use management
- Provides water quality and flood protection
- Important because stormwater runoff is the State’s largest water pollution source

(Source: SWFWMD)
Why Are Pond Edge Plants Important?

• Enhances the pond’s ability to remove non-point pollutants by providing habitat for microorganisms that remove nutrients and toxic compounds dissolved in the water.

• Improves the pond’s appearance by disguising water level changes and floating debris.

• Helps stabilize transitional zone from erosion.

• Provides habitat for beneficial insects and wildlife.
# Ponds – Hydrologic Zones

<table>
<thead>
<tr>
<th>ZONE #</th>
<th>ZONE DESCRIPTION</th>
<th>HYDROLOGIC CONDITIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Deep Water Pool</td>
<td>1’-6’ deep permanent pool</td>
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<tr>
<td>2</td>
<td>Shallow Water Bench</td>
<td>6”-1’ deep</td>
</tr>
<tr>
<td>3</td>
<td>Shoreline Fringe</td>
<td>Regularly inundated</td>
</tr>
<tr>
<td>4</td>
<td>Riparian Fringe</td>
<td>Periodically inundated</td>
</tr>
<tr>
<td>5</td>
<td>Floodplain Terrace</td>
<td>Infrequently inundated</td>
</tr>
<tr>
<td>6</td>
<td>Upland Slopes</td>
<td>Seldom or never inundated</td>
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**TRANSITIONAL ZONE**
inundated
PLANT ZONES for PONDS and BUFFERS

- **Buffer**: SHRUBS & TREES
- **Shelf**: BOG PLANTS, OLD TREES FOR HABITAT, FLOATING PLANTS, SUBMERGED PLANTS
- **Open**

Soil: Moist, Wet 0-1 ft., 1-2 ft., 2-4 ft., 4-6 ft.

Pond Edge Plant Selection

- Ability to survive prolonged wet conditions
- Ability to survive prolonged dry conditions
- Native vs non-native
- Eliminate invasives
- Mature size/sight obstruction
- Low maintenance
Pond Edge Plant List

Lobelia (*Lobelia* spp.)
Leavenworth’s tickseed (*Coreopsis leavenworthii*)
Pickerelweed (*Pontederia cordata*)
Water hyssop (*Bacopa monnieri*)
Jointed flat sedge (*Cyperus articulatus*)
Soft rush (*Juncus effuses*)
Leather fern (*Acrostichum danaeifolium*)
Muhly grass (*Muhlenbergia capillaris*)
Cattails (*Typha* spp.)*
Creating Wildlife Habitat with Native Florida Freshwater Wetland Plants

Martin B. Main, Ginger M. Allen, and Ken A. Langeland

Introduction

The aesthetic and wildlife habitat value of ponds, water retention areas, and other created wetlands can be greatly enhanced by establishing and managing native plants. Because native plants have evolved adaptations to local environments, such as seasonal changes in water level, insect pests, and plant diseases, they are typically easier to maintain than non-native species. And most native wetland plants require little or no
Table 1. Native Florida freshwater wetland plants organized by floating, submersed, and emergent growth categories. Scientific names follow common names. Comments include notes on natural resource and aesthetic values, growth characteristics, and planting tips.

<table>
<thead>
<tr>
<th>Marginal plants: ferns and fern-like</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leather Fern <em>Acrostichum danaeifolium</em></td>
<td>Large clump-forming fern, grows to 8 feet. Showy cinnamon-colored spores. Plant in partial shade in brackish or freshwater marshes, hammocks, or swamps in central to south Florida.</td>
</tr>
<tr>
<td>Swamp Fern <em>Blechnum serrulatum</em></td>
<td>A spreading fern reaching 5 feet; grows in partial shade. Prefers soils that are wet the majority of the time.</td>
</tr>
<tr>
<td>Cinnamon Fern <em>Osmunda cinnamomea</em></td>
<td>Deciduous, clump-forming fern grows to 4 feet and prefers shade. The planting density should be two feet in wet soils, but it cannot tolerate frequent flooding.</td>
</tr>
<tr>
<td>Royal Fern <em>Osmunda regalis</em></td>
<td>Shrub-like fern growing to 5 feet in shade to full sun. Planting density should be 2 feet in very wet acid soils.</td>
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<tr>
<td>Netted Chain Fern <em>Woodwardia aerolata</em></td>
<td>Forms colonies of plants 3 feet in height. Plant in partial sun to shade, in acidic soils that are nearly always wet.</td>
</tr>
<tr>
<td>Virginia Chain Fern <em>Woodwardia virginica</em></td>
<td>Forms colonies of plants to 3 feet in height. Plant in partial sun to shade in acid soils. Requires usually wet soils.</td>
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<tr>
<td>Rough Horsetail <em>Equisetum hyemale</em></td>
<td>Ancient fern-like evergreen, reaching a height of 3 feet and forming colonies. Prefers full sun in wet areas. Eaten by waterfowl and mammals.</td>
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<th>Marginal plants: grasses and grass-like</th>
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<td>Giant Switch Cane <em>Arundinaria gigantea</em></td>
<td>Perennial grass forming dense stands, with plants reaching 25 feet. Grows in moist to wet woods and along wetland banks, but not in south Florida. Sometimes browsed by deer. Preferred habitat of American woodcock. Attracts skipper butterflies.</td>
</tr>
<tr>
<td>Muhly/Hair Grass <em>Muhlenbergia capillaris</em></td>
<td>Attractive perennial bunch grass with striking purple inflorescence. Grows to 3-5 feet in full sun and tolerates a wide range of soil moisture. Excellent landscaping plant. Seeds eaten by birds and wildlife.</td>
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Other Considerations

- Size and shape of rain garden
- Hardscaping
- Mulch
- Pruning
- Weeding
- Short- and long-term maintenance
Hardscapes

• Transition water away from building
• Garden art
• Visual interest
Maintenance Tips

• Use chemical fertilizers sparingly.
• Avoid insecticides and herbicides.
• Don’t let grass clippings into the pond.
• Plant, don’t pave. Ground cover minimizes runoff.
• Add more swales and berms to your yard.
Questions?