Landscaping for Wildlife

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Landscaping for wildlife (& people)
Invigorate your landscape

Why use native plants?

- Native plants provide food at the appropriate times and shelter of the needed quality (density, height, etc.) for our native wildlife — they evolved together over thousands of years.
- When grown under the right environmental conditions (right plant, right place), native plants generally grow well and require less care than exotic species (e.g., turfgrasses).
Why use native plants?

- Invigorate the landscape
- Alternative to and competition against invasive exotic species
- Help preserve local, state, and national biological heritage
- Augment declining wildlife habitat

alternative to and competition against invasive exotic species

- ~ 65% of invasive woody plants were introduced for horticultural purposes
  - Reichard, 2004
Help preserve local, state, and national biological heritage

Atala butterfly (*Eumaeus atala*)

Help preserve local, state, and national heritage

- Coontie
- *Zamia pumila*
Landscaping for wildlife

- Food
- Shelter
- Water
- Low-impact gardening/landscape maintenance

Landscaping for wildlife

- **Food**
  - Pollen
  - Nectar
  - Seed
  - Fruit
  - Insects
  - Foliage, etc.
- Shelter
- Water
- Low-impact gardening/landscape maintenance
Food – Pollen (palynivores)

- Contain carbohydrates and protein
- Many insects and some mites are specialized to feed on pollen (palynivores)

Food - Pollen

- Insectivorous animals, e.g. bats and birds, may supplement their diets with pollen
- Pollination affects 35% of the world's food crop production, increasing yields of 87 of the main crops
Food - Pollen

Food – Nectar (nectarivores)

- Sugar-rich liquid produced in glands called nectaries
- Nectaries can be floral and extrafloral
- Floral nectaries attract pollinators
- Bats, birds, butterflies and predatory insects feed on nectar
Food - Nectar

- **Wildflowers**
  - Cardinal Flower (*Lobelia cardinalis*)
  - Horsemint (*Monarda punctata*)

- **Vines**
  - Trumpet Vine (*Campsis radicans*)
  - Cypress-vine (*Ipomopsis rubra*)
  - Honeysuckle, Coral (*Lonicera sempervirens*)

- **Shrubs**
  - Coral Bean (*Erythrina herbacea*)
  - Firebush (*Hamelia patens*)
  - Saw Palmetto (*Serenoa repens*)

- **Trees**
  - Geiger Tree (*Cordia sebestena*)
  - Palm, Cabbage (*Sabal palmetto*)
Landscaping for wildlife - food

- Beneficial insect predators and parasites are critical components of a healthy environment and some may sustain themselves on pollen or nectar.
- Establishing and managing native plant habitats can increase biological control of pest insects and enhance pollination services.

Food – Seed (granivores)

- Contain protein, carbohydrates, lipids, vitamins and minerals.
- Animals can play an important role in seed dispersal.
Food – Seed
Supplemental feeding

- To minimize the potential for window collisions, place feeders either close (<3') or far from windows
- Clean feeders regularly
- Keep seed dry

Feeding station for predators (carnivores)
Food - Seed

- Wet areas, shoreline, etc.
  - Spatter-dock (*Nuphar advena*)
  - Fragrant Water Lily (*Nymphaea odorata*)
  - Banana Lily (*Nymphoides aquatica*)
  - String Lily (*Crinum americanum*)
  - Jointed Flat Sedge (*Cyperus articulatus*)
  - Soft Rush (*Juncus effusus*)
  - Pickerelweed (*Pontederia cordata*)
  - Duck Potatoes (*Sagittaria* spp.)

Food - Seed

- Uplands
  - Maple, Florida Sugar (*Acer barbatum*)
  - Maple, Red (*A. rubrum*)
  - Magnolia, Southern (*Magnolia grandiflora*)
  - Pines (*Pinus* spp.)
  - Elm, Winged (*Ulmus alata*)
  - Coonite (*Zamia pumila*)
Food – “Fruit” (frugivore)

- Fruit are a means to disseminate seeds
- Fruit, like flowers, can be a decorative element in a landscape

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University of Florida
Food – “Fruit”
Seasonality is important

- Summer – fleshy, high-energy sugars
  - blackberries, mulberries
- Fall – high-energy lipids
  - black gum, dogwood, sassafras, spicebush and Virginia creeper
- Winter/spring – low-energy lipids
  - hawthorns, hollies, viburnums, wax myrtle*

Fruit can be very important to some migrating birds

[Image of a bird] David Menke, U.S. Fish and Wildlife Service
Fruit can be very important to other animals as well

- Many birds, mammals and other wildlife depend on seeds
  - Acorn example
    - Insect larvae
    - Ducks, jays, turkeys, woodpeckers
    - Bears, deer, mice, raccoons, squirrels, woodrats

Food – “Fruit”

- Seed-containing female cones
  - Cedar, Red (*Juniperus virginiana*)
  - Pines (*Pinus* spp.)
  - Cypress, Bald and Pond (*Taxodium* spp.)

- Accessory fruit
  - Crabapple, Southern (*Malus angustifolia*)
Food – True fruits

- **Vines**
  - Grape, Muscadine (*Vitis rotundifolia*) – S

- **Shrubs**
  - American Beautyberry (*Callicarpa americana*) – F
  - Firebush (*Hamelia patens*) – W
  - Wax Myrtle (*Myrica cerifera*) – F-W
  - Elderberry (*Sambucus canadensis*) – S-F
  - Blueberry (*Vaccinium* spp.) – S
  - Viburnum (*Viburnum* spp.) – F

Food – True fruits

- **Trees**
  - Hickory (*Carya* spp.) – F
  - Hackberry or Sugarberry (*Celtis laevigata*) – S-F
  - Dogwood, Flowering (*Cornus florida*) – F
  - Hollies (*Ilex* spp.) – F-Sp
  - Mulberry, Red (*Morus rubra*) – Sp
  - Gum, Black or Tupelo (*Nyssa sylvatica*) – F
  - Cherry-laurel (*Prunus caroliniana*) – W
  - Oaks (*Quercus* spp.) – F-W
  - Palm, Cabbage (*Sabal palmetto*) – F
Food – Insects (insectivore)

- High in protein, although chitin not digestable
- Some have high fat/caloric content
- Source of vitamins and minerals
- Source of fiber (chitin)

Food - Insects

- Milkweed/oleander aphids (*Aphis nerii*)
- Gulf Fritillary caterpillars (*Agraulis vanillae*)
- Cassius Blue butterfly (*Leptotes cassius*)
Food – Foliage (folivore)

- Milkweed after lubber grasshopper feeding

Landscaping for wildlife

- Food
- Shelter
  - Cover and escape from predators
  - Shelter during storms and other stressful weather conditions
  - Safe denning and nesting sites
- Water
- Practice low-impact gardening/landscape maintenance
Shelter

- Safe nesting sites
  - Good concealment
  - Adequate height above ground or water
  - Thorns sometimes a plus

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Chris Fooshee, University of Florida
Shelter (and Food)

- If at all possible, without endangering anyone or anything, leave dead trees for cavity nesters, insects and insect feeders

Shelter

- It may be necessary to provide nest boxes for cavity nesters like Bluebirds due to the lack of adequate tree cavities
Shelter

- This may be particularly true for colonial species such as many bats and Purple Martins.

Shelter

- Downed tree trunks and rock piles can serve as dens for wildlife.
Landscaping for wildlife

- Food
- Shelter
- **Water**
- Practice low-impact gardening/landscape maintenance

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**Water**

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Water – “puddling”

- Butterflies, especially males, often obtain water (and salts and minerals) by sipping moisture from rock surfaces and damp soil. You can make a puddling station by filling a shallow pan or saucer with course sand and keeping the sand moist. Adding a small amount of salt, manure, stale beer or overripe fruit may increase the attractiveness of the “puddle”.

Florida Native Plant Society
Natives to Plant!!

Click on Your County to See Native Species to Grow in Your Area.

The list of species that you will get has been compiled based on a database of species occurrence by county, originally developed by Dr. Richard Wunderlin and tailored for the specific needs of Floridians. The plants listed were derived from a combination of sources: the UF/IFAS directory of species available at Florida Native Plant Materials, plant lists developed by UF/IFAS chapters, and species listed at books by Kathy Doerner and Rachel Ratcliffe and then encoded.

You can help refine this database. If you see an error in this database, or if a plant you believe is native has been omitted from a county where it is native, or disagree strongly with a listing, please contact us by clicking on the link at the bottom of the page.

Natives to Grow in ORANGE county

Species listed on this page are found naturally in the county and adapt to garden conditions. Unquestionably. UF/IFAS page reflects the research and experience of the author as well as recommendations from chapter and individual gardeners. Be sure to match the requirements of plants that interest you to conditions at your planting site.

Please be Responsible.

Buy your plants or get them from a friend.
Collecting from the wild can be harmful and may be illegal.

Key
- A = aquatic, good for planting in an area that is typically flooded such as a pond
- D = relatively drought tolerant, may need supplemental moisture during very dry periods
- S = some salt tolerance, S = high salt tolerance
- B = butterfly plant (larval food or nectar source)
- L = provides food or good cover for wildlife

Click on the column heading to sort the plants based on that characteristic.

<table>
<thead>
<tr>
<th>Species</th>
<th>Form</th>
<th>Wet Tolerance</th>
<th>Dry Tolerance</th>
<th>Salt Tolerance</th>
<th>Butterfly Plant</th>
<th>Wildlife Plant</th>
<th>Photo</th>
<th>More info</th>
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<tbody>
<tr>
<td>Acer rubrum red maple</td>
<td>L</td>
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<td></td>
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<tr>
<td>Acer saccharum pubescens</td>
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<td>Fraxinus pennsylvanica</td>
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<tr>
<td>Quercus nigra black oak</td>
<td>RN</td>
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Key
• FN — fern, TS — small tree, TL — large tree, WF — wildflower, GC — groundcover, GR — grass, SH — shrub, VN — vine
• w — does well in moist places, r — requires moist places, naturally a wetland species
• a — aquatic, good for planting in an area that is typically flooded such as a pond
• d — relatively drought tolerant, may need supplemental moisture during very dry periods, D — very drought tolerant
• s — some soil tolerance, S — high soil tolerance
• B — butterfly plant (larval food or nectar source)
• L — provides food or good cover for wildlife

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<th>Wet Tolerance</th>
<th>Dry Tolerance</th>
<th>Salt Tolerance</th>
<th>Native Tolerance</th>
<th>Unusual Plant</th>
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<th>More Info</th>
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<tr>
<td>Acer rubrum red maple</td>
<td>TL</td>
<td>w</td>
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<td>L</td>
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<tr>
<td>Arctostaphylos uva-ursi</td>
<td>MN</td>
<td>W</td>
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<td>s</td>
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<td>UF Guide</td>
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<tr>
<td>Asimina chlorcephala</td>
<td>SH</td>
<td>D</td>
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<td>L</td>
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<td></td>
<td>UF Guide</td>
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Florida Landscape - WGCU Public Media
<table>
<thead>
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<th>Name</th>
<th>Type</th>
<th>Zone</th>
<th>View</th>
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<tbody>
<tr>
<td>Firebush</td>
<td>Small tree or shrub</td>
<td>9b,10a</td>
<td>View</td>
</tr>
<tr>
<td>Gumbo Limbo</td>
<td>Tree</td>
<td>10a</td>
<td>View</td>
</tr>
<tr>
<td>Fiddlewood</td>
<td>Small tree or shrub</td>
<td>10a,10b</td>
<td>View</td>
</tr>
<tr>
<td>Red Tip Cocoplum</td>
<td>Shrub</td>
<td>10b</td>
<td>View</td>
</tr>
<tr>
<td>Wild Coffee</td>
<td>Shrub</td>
<td>9b,10a,10b</td>
<td>View</td>
</tr>
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<td>Seagrape</td>
<td>Medium sized tree or</td>
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<td>View</td>
</tr>
<tr>
<td>Bloodberry</td>
<td>Shrub</td>
<td>10a,10b</td>
<td>View</td>
</tr>
<tr>
<td>Bahama Cassia</td>
<td>Shrub</td>
<td>10a,10b</td>
<td>View</td>
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<tr>
<td>Pomegranate</td>
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<td>View</td>
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<tr>
<td>Gallardia</td>
<td>Wildflower</td>
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<td>View</td>
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<td>Cabbage Palm</td>
<td>Tree</td>
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<td>View</td>
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<td>Watch Palm</td>
<td>Tree</td>
<td>10a,10b</td>
<td>View</td>
</tr>
<tr>
<td>Florida Privet</td>
<td>Small tree or shrub</td>
<td>8b,9a,9b,10a,10b,11</td>
<td>View</td>
</tr>
</tbody>
</table>

**Indicates a storm resistant plant.**
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![Image](image.png)

**1. RIGHT PLANT, RIGHT PLACE**

- Planting zones: Florida is classified as a subtropical environment, however it is important to know that there are actually seven different planting zones throughout the state. Finding the right plant for the right place begins with identifying which zone you live in. To determine your zone, visit [http://www.ifas.org/landscape/indexmap.html](http://www.ifas.org/landscape/indexmap.html)

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Additional resource

### Additional resource

- **Wildlife Information**
  - Landscaping for Wildlife
  - Florida Backyard Landscapes for Wildlife
  - Florida Public Bird Monitoring
  - Creating Habitats for Wildlife
  - Non-Renal Plants & Animals
  - Conservation & Gardening Information
  - Environmental Sound Pest Management

- **Florida Master Naturalist Program**
- **Wildlife & Agriculture**
- **Green Communities**
- **Green Transportation**
- **Educational Resources**
- **Local Extension Service**
- **For Extension Agents**

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### Step-by-Step Guide to Creating a Native Habitat

1. **Choose a location for your habitat.** Find out everything you need to consider when choosing a site.
2. **Sketch a design.** Planning is everything! This is the best way to formulate your ideas.
3. **Identify your planting zone.** Climate should be a major consideration before you start planting.
4. **Identify the habitat around your home.** Not all areas of your yard are the same. It’s important to customize your new plants to fit the habitat around your home.
5. **Test your soil.** The pH balance of your soil can determine what kinds of plants you need in your yard.
6. **Eliminate your grass.** We’ll show you the easiest and safest way to get rid of your grass.
7. **Install your plants.** When you’re finally ready to plant, we’ll tell you tips that will ensure your plants’ survival.
8. **Care & Maintenance.** Learn how to care for your native plants, and how to keep them as low-maintenance as possible.
Landscaping for wildlife

- Include a diversity of plants in your landscape
- Limit areas devoted to high maintenance turf
- Select plants that flower and bear fruit or seed at different times of the year
  - Remember that only the female of some plant species (American Holly, Wax Myrtle and Red Cedar) produces fruit. For these plants be sure to provide at least one male plant for pollination.

Landscaping for wildlife – Management

- Use least toxic and/or non-toxic pest and disease control methods, and only if any are really needed
- Schedule and stagger pruning activities to reduce disruption during nesting season and to maximize food availability during the winter and migration periods
- Strategically locate viewing areas
Wildlife food interactions

Wildlife landscape certifications
Go native!

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