UF/IFAS Extension
The Journey to Sustainability Begins with Education
Backyard Landscaping for Wildlife

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Overview

• Florida Biodiversity
• Landscaping for Wildlife Concepts
  – Examples with birds & butterflies
• Steps to Wildlife Landscaping
• UF/IFAS Backyard Landscape for Wildlife Program
Florida Biodiversity

- Native Ecosystems
  - 69 Identified Statewide
  - 6 Categories
    - Interior vs Coastal
    - Uplands vs wetlands vs waters

- Native Animal Species
  - 700 land vertebrates
  - 1,000 fish
  - 30,000 land invertebrates

- Native Plant Species
  - 4,000 flowering plants
  - 3rd largest plant diversity of any state
Florida Ranks High in Threats to Species

The maps show that Florida, Hawaii, California, and Georgia rank highest in the nation in numbers of species of plants, animals, and other living things becoming threatened and in danger of going extinct.

Sources: Adapted from Rodriguez and Roberts/Environmental Defense Fund 1997; Flack 1996; Doyle 1997.
Florida’s Imperiled Biodiversity

• Categories
  – Endangered, threatened, & species of special concern

• 64 Plants Species

• 118 Animal Species

• Protected by Rules & Regulations

• See Florida Fish & Wildlife Conservation Commission (FWC) website
  http://myfwc.com/imperiledspecies/
Florida’s Imperiled Biodiversity

- Loss of Natural Ecosystems
- **Factors**
  - Urban Development
  - Agriculture
  - Exotic Species
  - Functional Constraints (eg., fire exclusion)
Florida Imperiled Biodiversity

• Protection Strategies
  – Federal & State Laws
  – Environmental Lands Protection Programs
  – Landowner Wildlife Habitat Conservation
Sarasota County
Environmentally Sensitive Lands Protection Program
Florida has the most aggressive and successful natural land protection program in the country.
Sarasota County has one of the most aggressive and successful natural land protection programs in the state.
Sarasota County Publicly Protected Conservation Lands
109,872 Acres, 30% of Total Land Area*

*All data current as of 08/30/2011. Figures based on total land area of 366,792 acres, per US Census. See N:\Environmental\Natural Resources\Protected_Lands\Protected Conservation\Acreage.xlsx for a complete description of methods.
Environmentally Sensitive Lands Protection Program

- Established by referendum March 1999.
- Authorized 0.25 mill in ad valorem tax.
- Authorized $53 million in bonds.
- Sites identified based on ecological criteria.
- ‘Willing Seller’ required for inclusion in program.
- Market-based pricing.
- No additional regulatory burden.
- Owner may develop property at any time.
- Nearly $22 million set aside for management.
Blue Flag Iris

Butterfly Orchid

Shoestring Fern

Pine Lilly

Calopogon sp.

Cinnamon Fern
Red Bug Slough Preserve
Residential Areas & Biodiversity Protection

• Over 77% of people in North America live in urban and suburban areas

• Urban impacts on Natural Resources include:
  • Energy
  • Water
  • Natural habitat

• Backyard Wildlife Habitat Restoration - an individual & community opportunity
Urban Wildlife Viewpoints

- Personal Pleasure and Connection to Nature
- Environmental Ethic
- Utilitarian (e.g., economic/scientific)
- Fear and Loathing
Urban Wildlife Viewpoints

Punk flamingoes

[Image of a cartoon showing a person reading a newspaper and a house with a mailbox labeled S. White, surrounded by a forest and a line of turtles lining up at the house with a rabbit nearby.]
Backyard Landscaping for Wildlife

- All animals need:
  - Food
  - Cover
  - Water
  - Space

Habitat
Florida House (old location)

- Red Cedar
- Cabbage Palm
- Coontie
- Perennial Peanut
Wildlife Garden

FL Privet

Fire Bush

Coco Plum

Scorpion Tail

Myrtle Oak

Saw Palmetto

Simpson’s Stopper

Wild Coffee

Dahoon Holly

Marlberry

St. Augustine Grass

Live Oak
Flatwoods Community

Creeping Podocarp

Slash Pine

Wax Myrtle

Laurel Oak

Saw Palmetto

Beauty Berry

Coontie

Dwarf Indian Hawthorne
Coastal Community

Coontie
Thryallis
Mimosa Strigullosa
Sea Grape
Saw Palmetto
Giant Liriope
Slash Pine
Simpson Stopper
Backyard Landscaping for Wildlife

Examples of Birds & Butterflies
Learn Life Stages & Natural History of Birds

Egg → Baby Bird → Immature Adult

→ Reproductive Adult

Photo by A. Wilson
Learn Life Stages and Natural History Butterflies
Seasons of Wildlife

- Breeding
- Wintering (non-breeding season)
- Migrating (Fall and Spring Migration)
Available Wildlife Information?

- Contact Florida Cooperative Extension Service – Wildlife or visit:  www.wec.ufl.edu/extension
  - Print on demand
  - Links and information
  - Educational programs

- Call Florida Fish and Wildlife Conservation Commission or visit  www.state.fl.us/fwc

- Call your local extension office
Providing Habitat - Birds
Habitat for Butterflies
Providing Food-Birds
Providing native plants is an effective way of feeding birds their natural diet during the summer and helping to fuel their migration, just as feeding bird seed augments their winter diet.

Leave seed-rich flower heads standing in the fall for migrating seed-eaters.
Food for Adult Butterflies

- Phlox
- Purple Coneflower
- Thistle
- Milkweed

Photos courtesy of www.flwildflowers.com
Food for Caterpillars

• Host plants must be tailored to specific butterflies

• Some plants are hosts to several different butterflies (passion vine – Gulf fritillary, Zebra long wing)

• Some feed on one specific plant - Pipevine swallowtail feeds on Dutchman’s Pipe
Planting native species does not require giving up a beautiful landscape.

It is also a step toward re-establishing habitat that lawns and non-native plantings have replaced.
Providing Cover
Providing Vegetation for Cover

- Plant or maintain a variety of native plant species
- Increase vertical height diversity
- Remove exotic vegetation
Organized Chaos

- Stop mowing!
Reduce Pesticide Use

• Almost all pesticides are non-specific, they kill both the pest species and butterflies

• Spot treat areas
Providing Water
WATER

Birds use birdbaths for drinking and to keep their feathers healthy.

Birdbaths and other small water features are important water sources for all backyard wildlife, including insects and small mammals.

Add a dripper or other moving water feature to increase the attraction.

Keep all water sources clean and in summer, replace the water daily.
Provide Puddling Areas for Butterflies

• Include damp areas or shallow puddles using sand or dirt as base

• Provides source of minerals, especially sodium

By Joe Schaefer
Providing Space
Different Birds Make Decisions at Different Scales

Larger birds = broader scales and larger patch sizes

Smaller birds = limited scales and smaller patch sizes
Scale-dependent Decisions of a Wren vs a Hawk
How To Plan For Space?

• Be aware of habitats surrounding your property and plan accordingly

• Talk with your neighbors (e.g., plan bigger patches)

• Experiment!

• Embrace uncertainty!
Florida Wildlife Habitat Program

Backyard Program Certification:

• Offered by UF/IFAS Wildlife Extension
  http://www.wec.ufl.edu/extension/landscaping

• Participants describe current yard, wildlife seen and future landscaping plans

• Yard is evaluated and recommendations made

• Contact local county extension office for information
Design Process

First year

Third year
Get to Know Your Property

- OBSERVATION
  - Shady areas
  - Wet areas
  - High traffic areas
  - Existing plants
  - Views
  - Topography

Step 1
Draw a Base Plan

- Sketch your site (to scale)
  - Draw property lines
  - House, driveway
  - Fences, any other human-built structure
Sketch Existing Landscape Structure

- Water (where is it? where does it go?)
- Views (good views and unsightly views)
- Type of soil
- Plants (what kind, where are they?)
- Topography (low and high ground)
Checklist of Desired Uses

- Functional areas – humans

- Functional areas – wildlife

Step 4
Create a Diagram of Future Landscape

• Draw shapes of planting areas
• Add drawings & labels of plants
  – Allow natural spacing and arrangements of plants
• Add non-plant elements

Step 5
Example Diagram
Installation of Wildlife Landscape

• Prepare a materials list and estimate costs BEFORE you shop

• Install sequentially

• Maintain your habitat

Step 6
Upon certification, participants receive a certificate and sign
Summary

• Backyard habitat = landscape with natural areas for wildlife usage!
• Backyard habitat includes your life requirements too!
• Habitat Factors – food – cover – water – space!
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USGS Patuxent Bird Center (Bird Photos):

FL Museum of Natural History: http://www.flmnh.ufl.edu

Flower Photos:
Florida Wildflower Showcase: http://www.flwildflowers.com