

Attract Birds and Butterflies to your Garden

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Introduction

- Are birds and butterflies attracted to your yard or garden?
- Like people, birds and butterflies require food, water, and shelter.
- They prefer that their food and water are close to where they live.
- They favor certain types of homes and food.



Birds

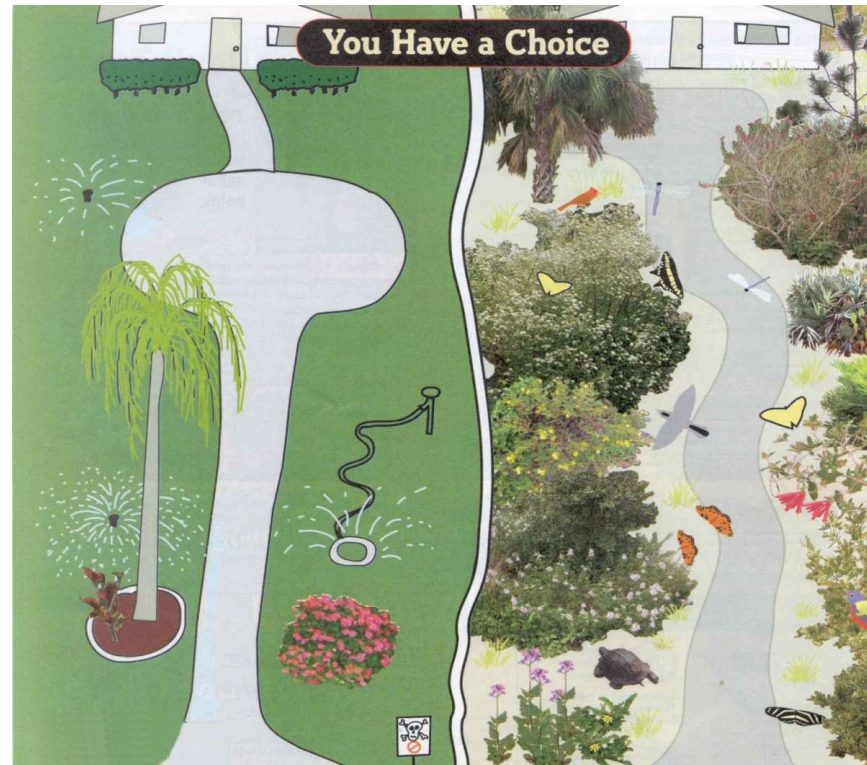
- Of over 900 bird species found in North America, 516 can be found in Florida.
- The loss or fragmentation of wildlife habitat due to human incursion, invasive or non-native species, and changes in climate pose challenges to the survival of many species.
- The Florida Fish and Wildlife Conservation Committee has identified 104 bird species with low or declining populations as our “greatest conservation need.”



Common Ground-Dove

What you can do?

- Maintaining or creating “natural” habitats in your landscape will not only aid overall conservation efforts, but will also enhance the value of your property and your own enjoyment of nature.



Native or Florida-Friendly Plants

- Adapted to sandy soil and weather conditions
- Require minimal or no pesticides/herbicides use
- Require less water
- Restores some of the wildlife habitat lost to development
- Provides color and diversity



Native Plants provide:

- Food
 - seeds
 - buds
 - sap
 - nectar
 - insects
- Shelter from predators
- Nesting sites and nest building material



Food

- Fruit or seed-producing canopy trees like oak or red maple
- Conifers like Eastern red cedar and pine
- Understory trees or shrubs like redbud, holly, and dogwood
- Ground plants like sunflowers, coneflowers, and asters





Dahoon Holly
Yaupon Holly
East Palatka Holly
Shillings Hollies

Magnolias
Red Maple
Red Bay
River Birch





Cherry Laurels



Eastern Red Cedars

Beauty Berry

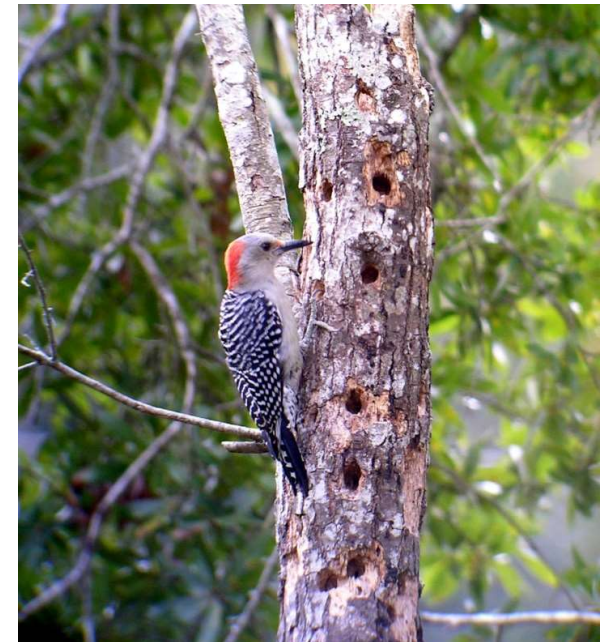




Eastern Bluebird

Other “Live” Food Sources

- Many birds eat insects, spiders or worms for protein.
- Habitat should include plants that attract these food sources too.
- Standing dead trees (snags) are often home to numerous insects.



Bird Feeders

- Keep bird feeders clean and food fresh to prevent spreading disease
- Cardinals, finches, chickadees, titmice, and sparrows prefer black-oil sunflower seeds (hulled seeds cause less mess) in hanging feeders.
- Attracting Backyard Birds: Feeder Selection: <http://edis.ifas.ufl.edu/uw192>



Pine Warbler & American Goldfinch





American Goldfinch with Pine Siskin

Cardinal & Chipping Sparrow



Tufted Titmouse





Red-bellied Woodpeckers



Blue Grosbeak & Indigo Bunting



Yellow-throated Warbler



American goldfinches feed on black-oil sunflower seeds at a “squirrel-proof” feeder.



Bird Feeder Location

- Should be at least 6 feet above the ground and close enough to shrubs and evergreens to escape predators, but not close enough for predators to hide and pounce



Bird Feeder Location

- Feeders should be far enough away from window to prevent collisions.
- Reduce window reflection with
 - Outside screens
 - Window dividers
 - Stained glass
 - Ribbons, string, tape, feathers, etc. hung in rows



Shelter

- Prefer a layered habitat
- Do not prune trees while birds are nesting



Nests

- Despite efforts to provide safe nesting sites, birds still fall victim to natural predators.



American Robin



Birdhouses/Nest Boxes

- Discourage undesirable species from competing with or displacing native birds by making nest box specifically for that species
- Nest boxes should provide adequate ventilation, drainage, accessibility and protection
- Do not have a perch



Carolina chickadee

SPECIES	NEST BOX ¹ DIMENSIONS				
	Box Floor (Inches)	Box Height (Inches)	Entrance Height (Inches)	Entrance Diameter (Inches)	Placement Height (Feet)
American Robins*	7x8	8	--	--	6-15
Eastern Bluebird**	5x5	8-12	6-10	1-1/2	4-6
Chickadees**	4x4	8-10	6-8	1-1/8	4-15
Titmice	4x4	10-12	6-10	1-1/4	5-15
Purple Martin	6x6	6	1-2	2-1/4	6-20
Tree Swallow**	5x5	6-8	4-6	1-1/2	5-15
Downy Woodpecker	4x4	8-10	6-8	1-1/4	5-15
Northern Flicker	7x7	16-18	14-16	2-1/2	6-20
Bewick's Wrens; House Wrens	4x4	6-8	4-6	1-1/4	5-10
Carolina Wrens	4x4	6-8	4-6	1-1/2	5-10
Ospreys	48 x 48 platform				

¹Adapted from USFWS, *Homes for Birds*, (updated 2012), <http://www.fws.gov/migratorybirds/NewReportsPublications/pamphlet/house/html>

*Use nesting shelf, platform with three sides and an open front.

**Locate boxes away from buildings/shrubs to reduce interference by house wrens.

Birdbaths

- Choose shallow, sloping birdbaths/containers with the deepest point no more than 3 inches (1.5 inches for hummingbirds) with rough surface/edges and a rim.
- Small stones arranged in middle help



Birdbath with dripper, cement block stand, clay pot bottom

Birdbaths

- Place birdbaths in a shady, open space near shrubs or low trees so birds feel safe
- Keep water clean so bacteria, other pathogens, and mosquitoes do not breed
- Consider the material the birdbath is made of



American Goldfinch & Cedar Waxwing



*Red-headed
Woodpecker*

Eastern Bluebird



Gray Catbird





Northern Parula Warbler

Tufted Titmouse with Pine Warblers





Brown Thrasher

Dust Birdbath

- Create a dust birdbath made of loose soil, sand and peat moss
- Keeps feathers free of parasites



House sparrows often follow a water bath with a dust bath where they wallow in shallow holes they create in loose soil.

HUMMINGBIRDS

- Require a diverse habitat with flowers and insects for food as well as trees and shrubs of varying heights for nesting, resting and sheltering
- Season is March-September, overwinter in Mexico and South America



Ruby-throated hummingbird (males have the red throats)

Food

- Have very high metabolisms that drive them to feed between 1-12 times an hour from dawn to dusk
- Females capture up to 2000 insects per day
 - Chicks need protein to develop and within 3 weeks they fend for themselves



A rufous hummingbird pauses from flight.
Photograph by Dave Menke

Nesting

- Nest is a walnut-size structure of plant down, adorned with lichens, moss, and bound with spider webs or fine plant fibers
- Often found over water
- Nests may be found in trees like beech, birch, hemlock, hornbeam, maple, oak, pine, poplar or spruce



Artificial Feeders

- Feeders should not be sole source of food
- Simple recipe: 1 part table sugar to 4 parts boiling tap water. Boil for 2 minutes.
- Do not use honey, artificial sweeteners or red food dye.
- Change every 3 days



Artificial Feeders

- Hummingbirds, especially males, are very possessive of feeders and usually will not tolerate another bird feeding from the same feeder at the same time
- If you are using more than 1 feeder, arrange them at least 10 feet apart so that all can feed peacefully at once



Juveniles are more sociable

Gardening for Hummingbirds

- Attracted to flower fragrance, flower color (especially red, orange, pink, and yellow), and shape (nodding flowers and those with long corolla tubes)
- Many flowers that appeal to hummingbirds also appeal to butterflies
- Ensure blooms throughout season



Hummingbird at hibiscus



BUTTERFLIES

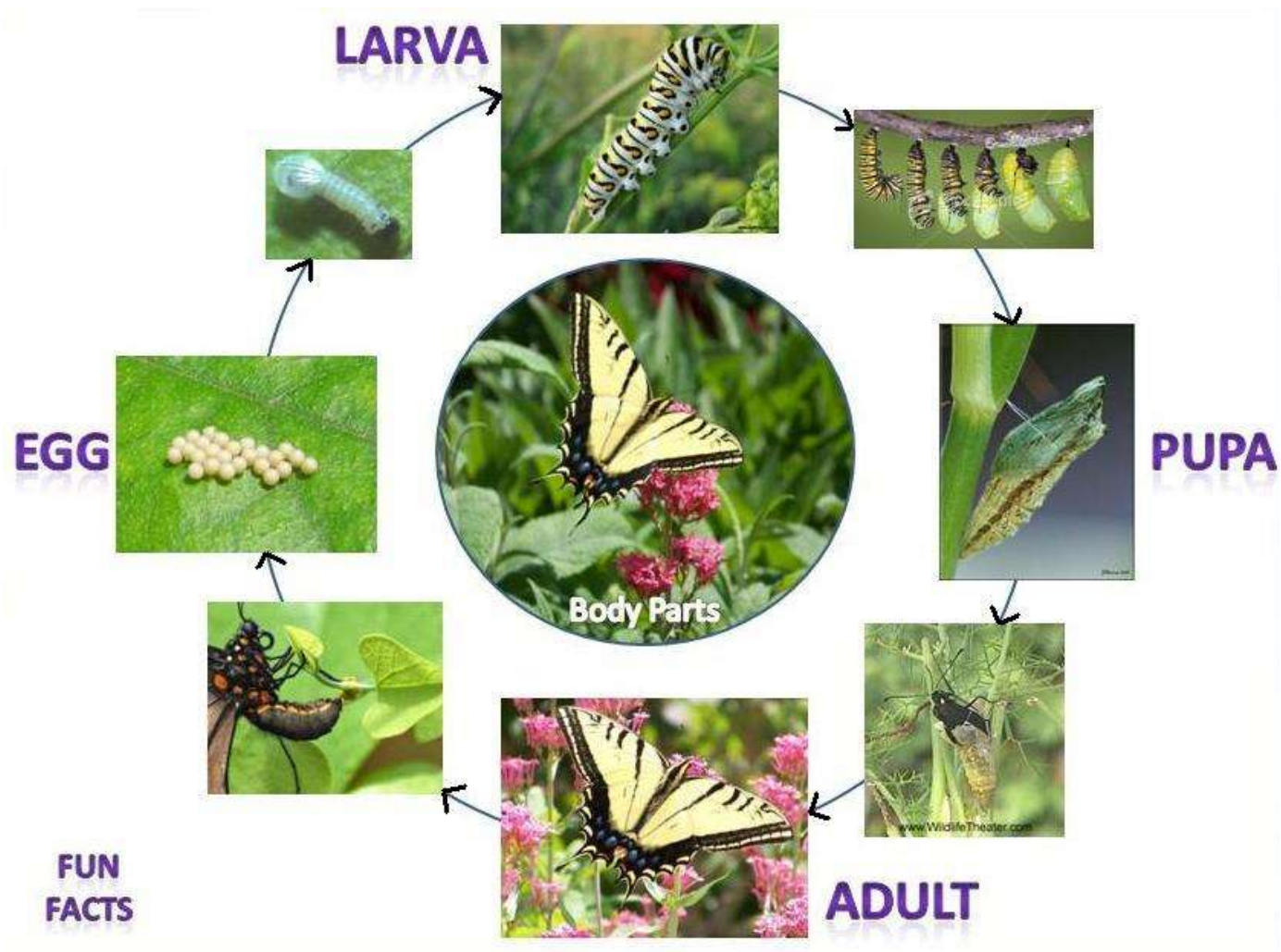
- 160 species of butterflies in Florida
- Live an average of 2-4 weeks
- Taste with sensory receptors on their feet
- Have an excellent sense of smell



Food

- A butterfly cycle requires leaves and other plant parts (host plants) for developing caterpillars and nectar for winged adults (nectar plants)
- Although butterflies prefer a sunny garden for nectar flowers, a shade garden is home to many of their host plants and sheltering shrubs.





Butterfly Species ¹	Host Plant ²
American Lady	pussytoe, ironweed
Azures	flowers of dogwood, New Jersey tea, cherry, meadowsweet, holly, viburnum
Black Swallowtail	dill, parsley, fennel, carrot
Buckeye	gerardia, plantain, snapdragon, foxglove, ruellia, monkey flower, verbena
Clouded Sulphur	clover (mainly white)
Eastern Comma	nettle, elm, hops
Eastern Tailed-Blue	clover, vetch, legumes
Fritillaries	violet, pansy, sedum, passionflower
Gray Hairstreak	legumes, cotton flowers, oaks
Monarch	milkweed species
Orange Sulphur	alfalfa, clover, wild indigo
Pearl Crescent	aster (probably not New York, flat-top or white wood asters)
Red Admiral	nettle, Pennsylvania pellitory
Red-Spotted Purple	cherry, serviceberry, cottonwood, aspen, willow, scrub & black oaks
Silver-Spotted Skipper	black & honey locusts, wisteria
Skippers (various)	native grasses & sedges
Spicebush Swallowtail	sassafras, spicebush
Tiger Swallowtail (Eastern)	tulip tree, wild black cherry, lilac, ash, basswood, willow

¹Adapted from Abugattas, *Butterfly Gardening in the Washington Metropolitan Area*.
²The list of host plants may not be complete.



Gulf Fritillary on Passion vine



Eastern Black Swallowtail on Dill

Nectar Plants

- Plant natives
- Choose plants with multiple florets
- Group plants
- Steer clear of double flowers (provides little nectar)
- Refrain from using pesticides



Monarchs on blue mist flowers



Proboscis:

Three times
longer than
their body

Used to
extract
nectar from
plants

Nectar Plants

- **Plant the right colors.** Butterflies are drawn to:
 - **Bright colors** like milkweed and lantana (non-native).
 - **Purple flowers** like butterfly bush (non-native), purple coneflower, blazing star, aster, verbena (non-native) and ironweed.
 - **Blue flowers** like blue mistflower, phlox, scabiosa (non-native), and Stoke's aster.
 - **Yellow flowers** like tickseed, oxeye, coneflower, cup plant and goldenrod.
 - **White (& pink) flowers** like New Jersey tea, buttonbush, fleabane, phlox and sedum 'Autumn Joy'

Giant Swallowtail on Bottle Brush





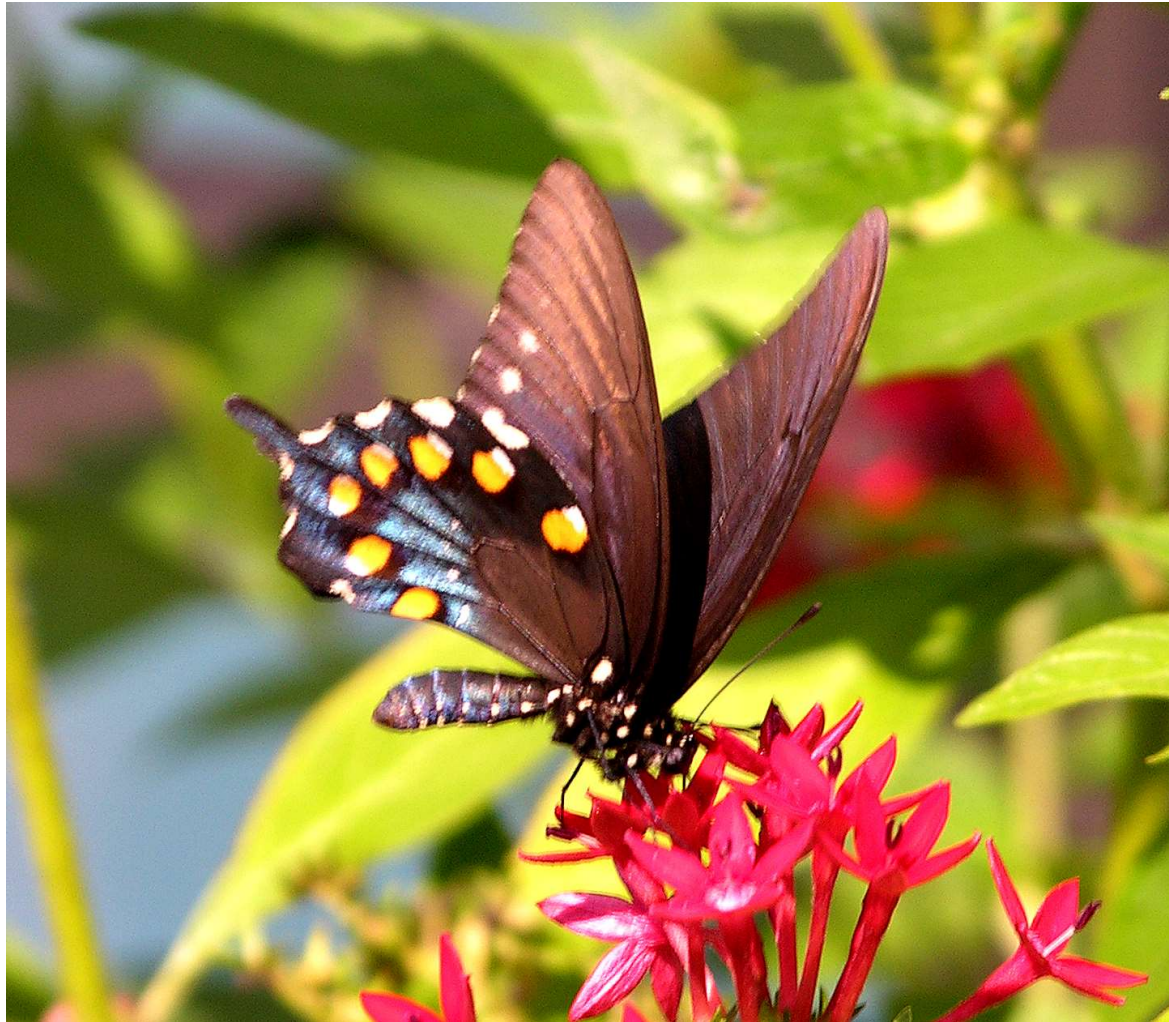
Gulf Fritillary



*Common
Buckeye*



Queen on Mistflower



Pipevine Swallowtail on pentas



Pipevine Swallowtail

Sulphurs on Salvia





Eastern Tiger Swallowtail, male, on Golden Dewdrop



Giant Swallowtail



*Clouldless
Sulphur
on Firespike*

*Native plants
provide the
necessary food
for our native
species to survive
and thrive*



Zebra Longwing on Firebush

Wildflower Meadows



Thank the Road Department!




To germinate, most small seeds need:

- light.
- good contact with soil.
- adequate moisture.
- some chilling.
- the “right” temperature.
- the “right” hours of daylight (determined by the time of year).



Growing Wildflowers from Seeds

(Many Other Flowers Also)

- Clear or till top layer of soil.
- Scatter seeds over soil Oct-Feb. (Most small seeds need light to germinate.)
- Step on the seeds to make sure they have good contact with the soil.
- Gently water the area. 
- Have patience! Tiny seedlings will emerge and shoot up when conditions are right for that species.

Watch for Seedlings: Don't Disturb!

Last year's *Coreopsis* plant



S.E. Wildflower Mix



- *Cosmos bipinnatis*, African daisies and Alyssum (annuals)

Some Easy to Seed Warm Weather Flowers

- *Cosmos sulphureus*



- Coreopsis





- Poppies

- Clasping Coneflowers (*Ratibida columnaris* and *Rudbeckia amplexicaulis*)



- Bachelor buttons



Blue Mistflower



Tithonia rotundifolia – Mexican sunflower



Blanket Flower (*Gaillardia pulchella*)



More Challenging Flowers to Grow from Seed



Rudbeckia hirta

Warm Season Favorite:
Gloriosa Daisy
(*Rudbeckia hirta*)



Warm Season favorite:
Softhair coneflower: *Rubeckia mollis*

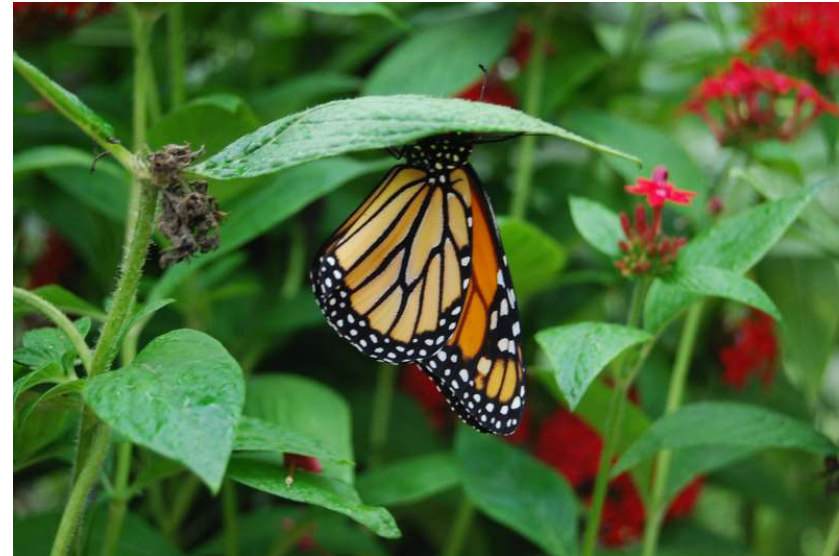


Rudbeckia triloba
(*Brown Eyed Susans*)



Shelter

- Need refuge from wind and rain
- Shelter nectar flowers with fences, shrubs, vines or trees
- Larger woody species provide habitat for more insect species than herbaceous plants



Basking Area

- Need an area in sun to warm their wing muscles so they can fly
- Make a basking area by placing a flat rock in a sunny spot



Ceraunus Blue butterfly

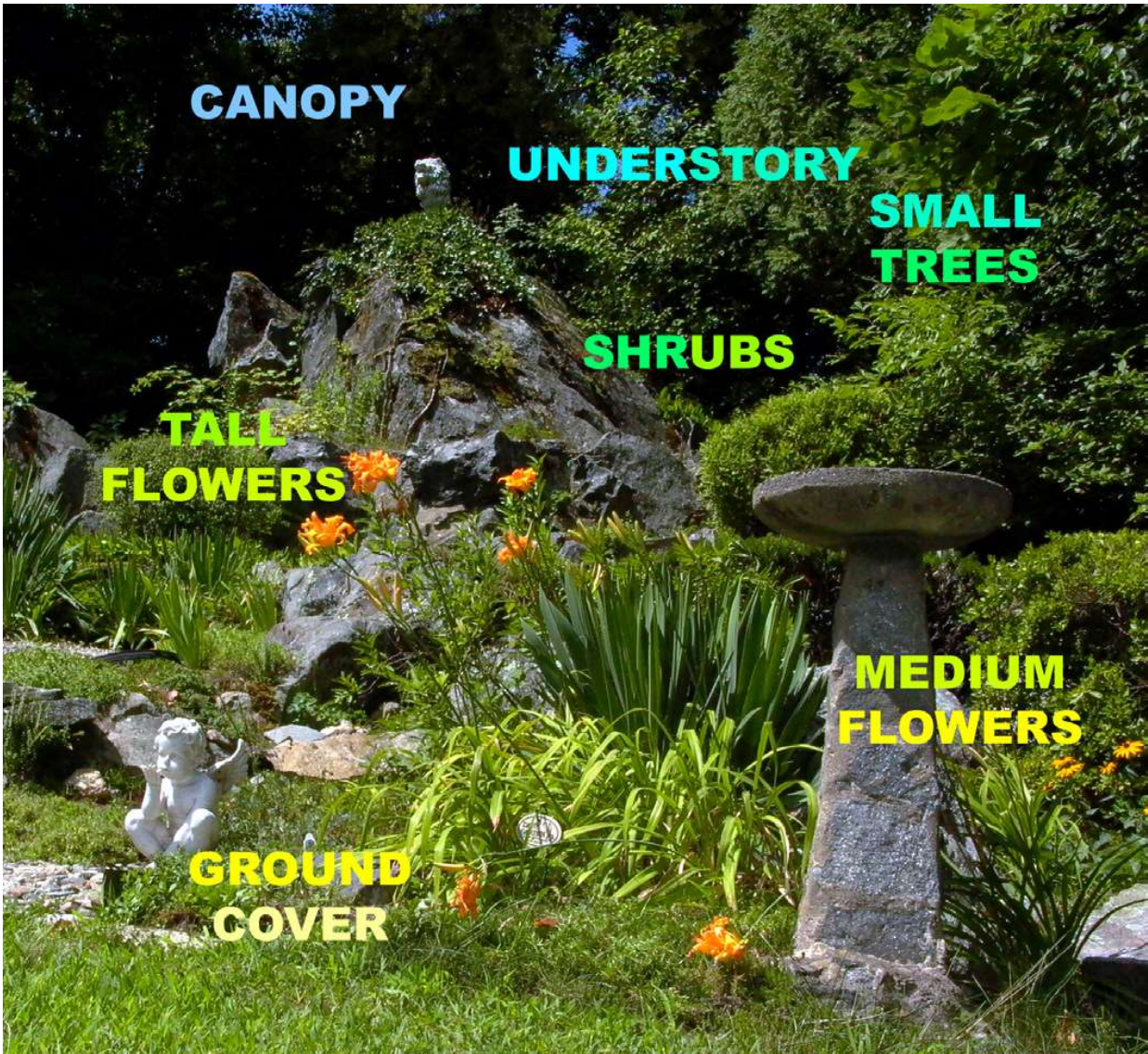
Water

- Butterflies, especially males, need soil minerals for reproduction
- Extract these by sipping moisture from mud puddles
- Make puddling area by placing a shallow dish at ground level, fill it with sand mixed with yard soil and keep it damp



Plan Before You Plant

- Decide the species you want to attract and research their requirements
- Draw a map of your yard
- Make a list of plant material and habitat you have (and its wildlife value and requirements)
- Keep track of plants you want to add
- Consider native plants



CANOPY

UNDERSTORY

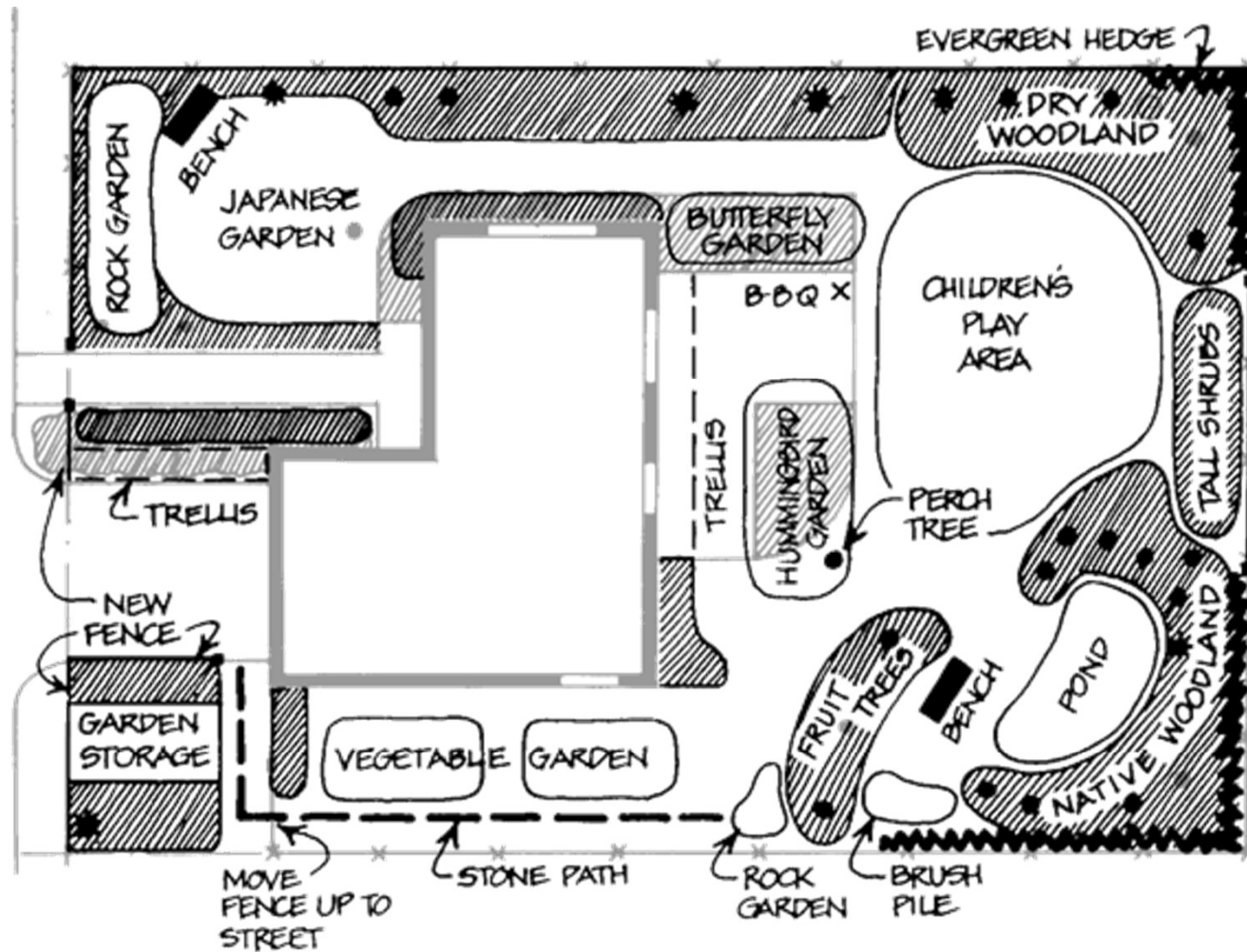
**SMALL
TREES**

SHRUBS

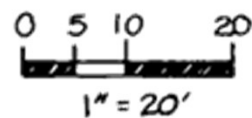
**TALL
FLOWERS**

**MEDIUM
FLOWERS**

**GROUND
COVER**

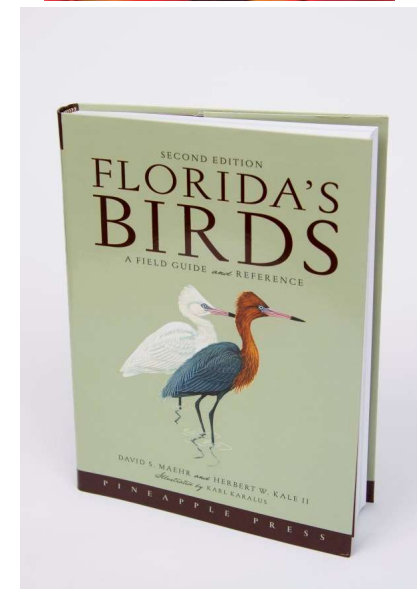
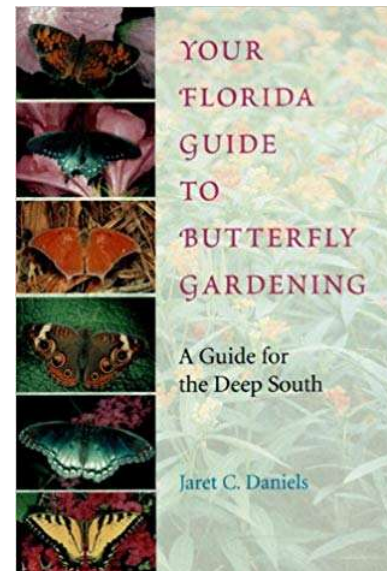
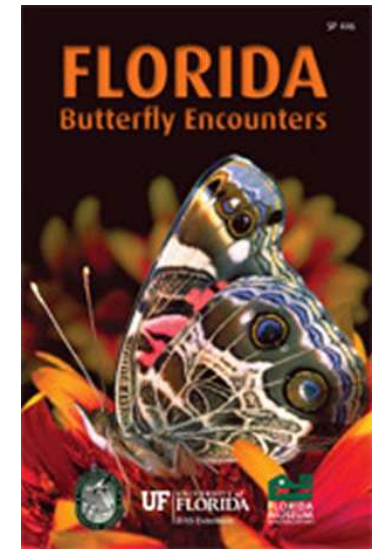
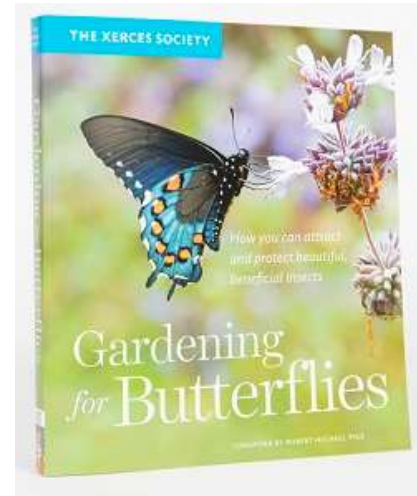


- * = CONIFER
- = BROADLEAF TREE
- ▨ = SHRUBS



Resources

- [Florida Butterfly Encounters](#)
- [Gardening for Butterflies](#)
- [Your Florida Guide to Butterfly Gardening](#)
- [Florida's Birds](#)



Questions

- Now you are ready to plan your garden!
- Use your UF/IFAS Extension office
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