

A quarterly online magazine published for Master Gardeners in support of the educational mission of UF/IFAS Extension Service.

A Butterfly Oasis Right in Our Own Pinellas County by Barbara Stauffer, Master Gardener 2012

Do you want a summer adventure? Be prepared to find one in the butterfly garden at the Florida Botanical Garden in Largo. It is 5,000 square feet and wheelchair accessible. Entering through a lush flowering arbor, you discover an oasis of fluttering butterflies with both nectar and host plants. Sighting a Monarch on a purple coneflower, watching pollinating bees and moths on tropical salvia, and observing the visiting hummingbirds, inspires an awe of nature that brings calm and joy! A path of mosaic tiles wanders through the garden. Identification signs and butterfly photos depict the butterfly lifecycle. Both children and adults enjoy the whimsical sculptures and musical instruments. This butterfly garden is both an educational and stress relieving adventure.

Volunteer, Liz Pearson, spearheaded the garden. Describing herself as a “seasoned gardener with an Environmental Science/Ecology degree and conservation/pollinator experience,” Liz comes from England where she developed a love of English gardens. Her grandfather was a gardener to the Royal Household in his hometown of Windsor; her mother was an incredible gardener. Liz has been a “lifetime conservation activist, saving trees and fighting within the law for habitat conservation”. She was the recipient of the Millennium Fellowship Award for Conservation in England in 2000. Liz and her husband Ken Gomm were partners in the planning and design of the butterfly garden.

During Liz’s presentation at the Master Gardeners Update in December 2014 introducing the new garden, she defined

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Monarch Butterflies. Photo Credit: UF/IFAS

butterfly gardening as the art of identifying and providing a specific habitat for a specific species. Some steps for creating a butterfly garden from her presentation included:

- First, identify the species that are resident, transient, and breed in your area and in the habitat you are providing. List the species that visit gardens and similar garden habitat. Useful websites for identifying local butterflies by region or zip code are:

1. www.butterfliesandmoths.org Click on tab for regional checklists.
2. <http://edis.ifas.ufl.edu/uw057> Scroll down, enlarge map to identify region.



The Butterfly Garden. Photo Credit: Florida Botanical Garden

- The next step is to identify the host (larval) Plants that your targeted butterflies rely on for laying their eggs and feeding of the emerged larvae. For example, milkweed attracts the Monarch caterpillar. Providing these host plants will ensure happy larvae.
- Identify the nectar plants for the butterflies you hope to attract. All animals expend the least amount of energy they can to meet their needs, that is, to eat and reproduce. Planting both host and nectar plants means they won't have to go far.

Keeping food and nectar plants in a localized area should, over time, develop into a self-sustaining population of butterflies.

Liz has a faithful group of core volunteers who team up with her to maintain the butterfly garden. Pruning, deadheading, and nurturing means there is always a need for more volunteers. The team meets on Thursday mornings from 8 AM to noon. Gayle Cooper, Master Gardener 2012, comments about her experience:

The renovated butterfly garden offers a kaleidoscope of butterflies year round. Unlike other butterfly exhibits, ours is open and free to all kinds of butterflies...and humans! Liz said if you plant the right butterfly nectar and host plants, butterflies will come. Indeed, they have! At latest count, volunteers have catalogued 26 varieties. Maintaining those "right plants" is a continuous work with rewards well worth the effort! It is always a work in progress.

Liz's vision, expertise, and hard work, along with that of the volunteers, have created a butterfly oasis for us right in our own Pinellas County!

References

Liz Pearson's PowerPoint Presentation

https://florida.volunteersystem.org/users/documents/18MG_Update_Dec_2014_Butterfly_Gardening5307.pdf

References, continued

Flutter Facts: Basics of Butterfly Gardening by Linda Smock, Master Gardener Trainee
https://florida.volunteersystem.org/users/documents/18The_Dirt5913.pdf

The Dirt, April 2015, Issue 1

The Dirt, July 2015, Issue 2, The Beloved Monarch Butterfly by Melinda Moreschi, Master Gardener Trainee
https://florida.volunteersystem.org/users/documents/18The_Dirt6265.pdf

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Largo, FL 33774

(727) 582-2100

<http://www.flbg.org/butterfly-garden.htm>

Beauty at the Beach by Ellen Mahany

Something magical happens when we cross over any Intracoastal Waterway bridge to the Pinellas County beaches. West of the Intracoastal, nature shows off not only on the beach but also in any number of inland landscapes in which such everyday plants as blooming Confederate Jasmine, Beach Sunflowers and Indian Hawthorne seem even more attractive. No doubt about it, we find the same weeds and plants in the wrong place as on our earthbound side—if only we could delete the tilting, towering Norfolk Island pines, for instance—but we also enjoy the charm and originality created by both professional landscapers and amateur gardeners. Perhaps we are in the relaxed mood to observe the beauty of nature.

I took these pictures at Indian Rocks Beach during spring break. For me, they illustrate why our beach areas are attractive to visitors and residents alike. Strolls with my dog around the strip stretching from the Gulf of Mexico to the Intracoastal Waterway revealed a crowded area where high-rise condominiums, rental cottages, private homes and public parks (the Nature Conservancy and 12th Street Park) coexist to offer a variety of desirable scenes.



One of several entrances to the public beach protected from erosion with appropriate plants such as beach sunflower and palmetto creates a pleasing sight.



Beach sunflowers paired with a wheel barrel become part of a natural landscape in the yard of an inland cottage. Below a private home coexists with a beach condo nudging its white-fenced balcony. Behind the white door and window is a greenhouse.





Confederate Jasmine forms a shady retreat at the 12th Street Park, surrounded by condominiums. The Nature Preserve displays a variety of native plants and borders a dog park (right). Native and non-native plant coexist in this professional garden design at a condominium development (below).



Blooming Confederate Jasmine travels a tiara-like arch stretching from one side of a stone fence to the other at this private residence sitting side by side with a condominium building.

Fabulous Florida Fading by Jane Morse, University of Florida/IFAS Extension Pinellas County

Do you long to see more birds and butterflies in your garden? Do you want to help Florida's wild critters survive? Are you tired of spending money and time watering, fertilizing, pruning and mowing your landscape? By knowing and understanding your yard's native ecosystem, you can choose plants that are almost maintenance-free while also attracting birds, butterflies and other pollinators.

Florida is the third most diverse state in the U.S., with 69 distinct ecosystems including forests, prairies, swamps, marshes, bogs, streams, ponds, estuaries, sandhills, flatwoods and sand scrubs. Our ecosystems—distinct populations of interconnected living organisms that occur on the landscape wherever certain physical conditions exist—are surprisingly complex, intricate, ancient and connected. The more we learn about them, the more we value their uniqueness, which can bring great pleasure and wonder into our lives.

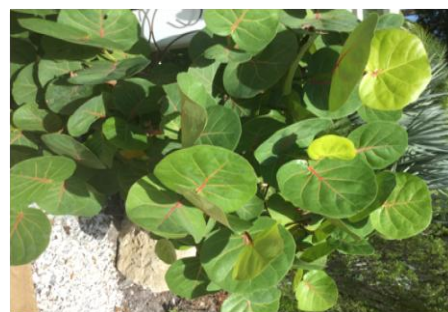
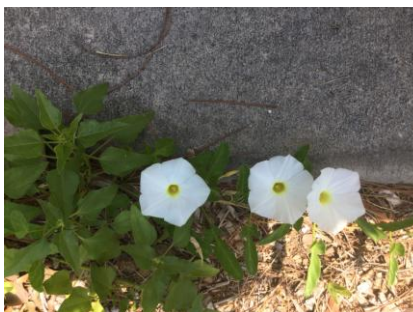
Unfortunately, many of these ecosystems have suffered drastic reductions in size or are in dire need of renewal.

Today in Florida, more than 130 animals are endangered, threatened or of special concern. The good news is that concerned and caring Florida residents have the power to help bring back many of the plant communities necessary to support our vanishing species. Just by knowing what type of habitat our yards would normally support, we can start to get Florida back to being Florida, and hopefully bring back many of the species that are now endangered or threatened.

In Pinellas County we have, or had, four major ecosystems: coastal strand, sandhill, flatwoods and salt marsh.

The far west side of the county is a coastal strand that occurs parallel and next to coastal beaches. These are the dunes, an extremely harsh environment for plants. In Florida, only a few patchy bits and pieces remain.

Plants in the coastal strand must be tolerant of salt, wind and blowing sand, all of which can stunt and "prune" most plants and shrubs. Plants that characterize this community include beach panic grass, sea oats, blanket flower, beach sunflower, sea purslane, beach morning glory, sea grape, cocoplum, inkberry, necklace pod, saw-



Beach Morning Glory (left) and Sea Grape (right) are characteristic plants of the coastal strand. Blanket flower (center) does well in both the coastal strand and sandhill ecosystems. Photo credit: Dianne L. Fecteau

palmetto, bay cedar, live oak and cabbage palm. These plants support many threatened shorebirds (including plovers), terns (including least and roseate species), gulls, endangered beach mice, endangered sea turtles, lizards, snakes, gopher tortoise, the threatened scrub jay and the threatened kestrel.

The coastal strand also reduces the impact of storm surge from hurricanes by reducing wave action, and thus helps to protect Florida's areas that are more interior.

The sandhill ecosystem is inland of the coastal strand. This area is high, very dry, low in nutrients and has loose, well-drained soils that allow for rapid aquifer recharge. Grasses that do well include Elliott lovegrass, Lopsided indiagrass, wiregrass and broomsedge bluestem. Small plants such as butterfly weed, day flower, tickseed, blanket flower, beebalm, black-eyed Susan, blue-eyed grass, and spiderwort also thrive here. Peppervine, butterfly pea, passion flower, blackberry and wild grape are vines for this habitat. Shrubs include pawpaw, American beautyberry, coontie, coralbean, yaupon holly, firebush, and saw palmetto. Many of the small oaks including Chapman, bluejack, turkey and myrtle oak live here, with sand, slash and longleaf pine as the large dominating trees along with American holly and southern red cedar.

Most sandhill habitats have been cleared and developed, leaving only three percent of this ecosystem intact nationwide. The southeastern American kestrel, red-cockaded woodpecker, blue-tailed mole skink, eastern indigo snake, Florida mouse and short-tailed snake are all in jeopardy of extinction because of this loss of habitat.



Black-eyed Susan (left) and Coontie (right) are characteristic plants of the sandhill ecosystem. Photo credit: Dianne L. Fecteau



Florida's most widespread ecosystem, and a large part of Pinellas County, is the flatwoods. They occur on level land with very gradual movement of water to swamps, ponds and marshes. During the rainy season, conditions are very wet, with the water table on or near the surface. The soils are usually acidic. Plants here need to be able to tolerate periods of saturated soil and flooding, as well as very dry soil. Annuals and perennials include native milkweed, mistflower, tickseed, spider lily, blue flag iris, blazing star, pine lily, coneflower, tropical sage, blue-eyed grass, goldenrod, spiderwort, cinnamon fern, royal fern, bracken fern and chain fern. Many vines live here

including peppervine, trumpet creeper, butterfly pea, yellow jessamine, sensitive vine, passion flower, blackberry and wild grape. Shrubs to plant are yaupon holly, gallberry, firebush, staggerbush, fetterbush, southern wax myrtle, saw palmetto, and elderberry. Common persimmon, dahoon holly, American holly, cabbage palm, live oak and many pines including slash, longleaf, pond and loblolly also do well in this environment.

Wildlife linked with a flatwoods community includes gray squirrels, gray fox, white-tailed deer, Bachman's sparrows and sandhill cranes. All are in danger of extinction due to development of flatwoods.



Tropical Sage (left) and Southern Wax Myrtle (right) are characteristic plants of the flatwoods ecosystem.
Photo credit: Dianne L. Fecteau



A small portion of Pinellas was once salt marsh. This is another harsh environment for plants, with conditions varying between extremes of salt and fresh water, wet and dry, hot and cold. Only a few plants can stand these extremes, including sand cordgrass, needle rush, saltwort, bushy seaside oxeye, saltgrass and saltwort. Animals found in this community include the fiddler crab, periwinkle snail, killifishes and other minnows, salt marsh snake, green treefrog, southern leopard frog and three bird species—the clapper rail, marsh wren and seaside sparrow (which can only live in this habitat).

While complete restoration of these plant and animal communities in our small yards may not be possible, we can certainly help, especially if we get our neighbors to do the same. Look around your yard. I'm sure you will find mostly exotic (non-native) plants from other parts of the world that are not part of this ecosystem and do little to nothing to support its unique community of plants and animals. Many ornamental plants from earlier days have turned into invasive species. A list of these is on the Florida Exotic Pest Plant Council website. Start replacing these exotics or begin adding to your yard native species that will help to restore lost habitat. Native plants in the right place are low maintenance, usually don't require many resources to grow and are good for the environment.

There are many resources to help you find plants for each of these ecosystems and to learn more about our incredibly diverse and beautiful Florida. One excellent way is to join like-minded folks in your local Native Plant Society. In addition, there are some very good, Florida-specific books such as: *Priceless Florida – Natural Ecosystems and Native Species* by Ellie Whitney, D. Bruce Means, and Anne Rudloe; *Landscaping for Florida's*

Wildlife--Re-creating Native Ecosystems in Your Yard by Joe Schaefer and George Tanner; and *Florida's Best Native Landscape Plants—200 Readily Available Species for Homeowners and Professionals* by Gil Nelson.

Filamentous Algae in Ponds and Lakes by Linda Smock

What's that green stuff floating in local ponds and lakes? Dead duck weed? Green scum? No, it's "filamentous algae" (*Lyngbya* spp., commonly called *Lyngbya*), according to Pinellas County pond expert, Melissa Harrison.

There are two reasons filamentous algae develops in ponds. First, there can be excessive nutrients such as phosphorus and nitrogen in the ponds. Excessive nutrients can result from run-off of fertilizer from nearby lawns. Because of this, it is against the law to use fertilizer in yards around a pond. Some can result by grass clippings being blown into ponds either accidentally or with a "don't care" attitude. Some may result from leaves entering street drains—that's why drains are marked "for rain water only!"

A second reason is that there are too few healthy, native plants, giving the algae unlimited opportunity to grow. Algae is in all pond water; it provides food for many organisms, some too small for the human eye to perceive. Too much algae, however, creates large amounts of oxygen in the pond, which then results in such problems as fish kills. Native plants help prevent the algae that makes our water look green by not allowing the algae deeper in the water to have sunlight. If you don't have (or perhaps spray and kill) the macro-plants, you'll get the micro-plants.

Why would people spray and kill the native plants? In some communities, people do so to have a plant-free environment; these people often do not understand what creates a healthy pond, and are making decisions based on aesthetics and finances. In a few of our ponds, non-native plants have taken over. If so, mechanical removal of the non-native plants is necessary in order to allow our native plants to grow.

The best way to get rid of algae is not easy—it requires hard work and some good rakes. You rake it out, using a pronged metal rake. The second way is with chemicals, and, yes, of course they will create other problems, including all those chemicals washing out into our lakes, bays, and eventually the Gulf of Mexico. The chemicals, combining with other chemicals from other neighborhoods, can possibly contaminate our seafood.

What role can you as a Master Gardener play? Educate, educate, educate! Lead efforts to clean up ponds to make them healthy. Contact Pinellas County Watershed Management at (727) 453-3420 or mharrison@pinellascounty.org for information on funds to assist and for educational opportunities and guidance.

White Water Lilies in Ponds by Linda Smock

Water lilies, often seen in shallow water around a pond or lakes edges, have floating leaves. Water lily leaves are circular shaped and are notched to the center. The leaf lobes are pointed and leaves arise on stalks from long rhizomes in the mud, which means they are only in shallow water. The flowers are white and aromatic.

The Lake Seminole Village retention pond has a water lily known as the fragrant water lily (*Nymphaea odorata*). It occurs throughout Florida and the continental United States. Many subspecies and varieties are in ponds, lakes and sluggish streams throughout North America.

As a native Florida plant, fragrant water lilies help provide cover for many native fish, turtles, frogs, insects and other things that help create a healthy environment for a pond and related pond life. Otters and large fish like to hide among them also.

A balanced, healthy pond only has water lilies at its edges. A balanced pond is one that provides health for water life at several levels of water depth. If water lilies are in the middle of a pond, this indicates that the pond is no longer in balance; it has become filled with sediment.

More information is at <http://plants.ifas.ufl.edu/plant-directory/nymphaea-odorata/>.



Photo Credit: Robert H. Mohlenbrock, hosted by the USDA-NRCS PLANTS Database / USDA NRCS. 1995. *Northeast wetland flora: Field office guide to plant species*. Northeast National Technical Center, Chester.

Creating a New Garden part two

by

Dianne L. Fecteau, Master Gardener

In the April, 2016 issue, I wrote about my purchase last year of an additional strip of land, 25' x 118' feet, adjacent to my property. The reason for this purchase was to assure the future of a large Live Oak tree that sat on the border of our original lot. Since I had run out of gardening space in my small lot, the additional footage was a welcome gift. My first task was to move the fence to encompass the new space. However, since I didn't have a clear vision of how to expand my garden, I let the new strip of land sit fallow several months. Finally, in March of this year, I was ready to begin moving forward.

My home sits on a lot a block from the Gulf with sandy soil. Most of my existing garden is native plants; I wanted to continue using natives for in-ground planting in my new area. Native plants tend to be tough, requiring little maintenance once they are established. Many are beautiful, attractive to people but also attractive to pollinators and butterflies. I usually use non-native plants only in containers.

Examining the additional area, I envisioned three separate sections of this garden, lengthwise. One area should contain seating. Because I use a large, screened-in porch for most of my outside entertaining, the seating in this area could be simple. I decided to place the seating area in front of the large, fence gates since I do not use them. Still, in case of future deliveries, I wanted everything lightweight and movable—this meant no in-ground planting and the use of lightweight plant containers. The "plant stand" in the corner is from the trunk of a Live Oak tree we had to cut down when we built our house. Eventually, everything can find its place in the garden.



Left picture is before any changes; center is an overview of seating area and right is more detail of the sitting area.

Michael, the owner of Twigs n' Leaves in St. Petersburg prepared a design that recognized the three areas. He and I went over the plan carefully. To "frame" the seating area, I chose two Yaupon Holly (*Ilex vomitoria*). You can see them in the center picture above. Michael had originally suggested Walter's Viburnum (*Viburnum obovatum*), a lovely plant along the edges of an informal landscape. However, I was less enthusiastic about its preference for moist to wet, sandy soil. I had the sand but I don't water frequently. Yaupon prefers some moisture as well but flourishes in a wide range of environments. In addition, I love its oval form and slender, grayish branches. Even when using a professional landscaper for design, it's important to study that plan and be sure each plant chosen reflects your preferences or desires for your habitat. Surrounding each Yaupon is tropical sage (*Salvia coccinea*). Their red flowers will complement the red fruit of the Yaupon.

The middle section received the most detail in the plan Michael prepared. He proposed setting off this area with planters. At the back of each planter near the fence, he suggested and planted Coral Honeysuckle (*Lonicera sempervirens*). This vine does well in my environment—some is at the front of my house. The red flowers are showy and the plant attracts butterflies and hummingbirds. In front of it, is Key Morning Glory (*Ipomoea imperati*), a rambling vine. It is a Florida native but native to the Keys. As a result, it's sensitive to frost. Placing such plants near walls and fences provides some protection and, in the event of frost, I can always throw a cover over the planter. There is still quite a bit of unplanted space in the planters. I will be



Left photo is one of the planters with Yaupon Holly to the left and Wild Allamanda and Firebush to the right. Detail of Coral Honeysuckle and Key Morning Glory, right. The Key Morning Glory spread out six inches within two weeks of planting.

Between the two rows of planters is a variety of plants. Central, against the east-facing fence, is a Jamaica Caper (*Capparis cynophallophora*). This is a plant I have had along my northern fence for the past few years. Its natural pyramid or rounded shape means little pruning is required. Surrounding it on both sides is Dwarf Coffee (*Pyschotria nervosa*), good companion plants to the Jamaica Caper. I have them throughout my garden.

Tropical Sage is in front of these as well as Black-eyed Susan (*Rudbeckia hirta*) with its cheerful and showy yellow flowers that attract butterflies and other pollinators. Finally, we planted frog fruit (*Phyla nodiflora*), a larval host plant. With its small, purplish-white flowers, it is useful as a ground cover. For mulch, I used small, pine-bark mulch. In the older part of my garden, I have more groundcovers; eventually, this area will have more as well.



Before any changes (left) and how it looks now (right). Below is a more detailed picture of the Jamaica Caper and other plants.



The third section is the least developed at this point. I am still debating what I really want to see here. In order to add some interest against the fence, we planted three Cocoplum (*Chrysobalanus icaco*), a dome-shaped shrub, useful for boundaries. It is largely, pest-free. You can use its fruit to make a jelly. Michael had suggested three Button Sage Lantanas but I'm frankly lukewarm to this plant. In addition, we planted a Spanish Stopper (*Eugenia foetida*). Michael had suggested a Green Buttonwood. I decided on Spanish Stopper only because I have Buttonwood in the front of my house and I wanted something different. Any of these would have worked in this space but as I wrote in the last issue, "plant what you really like." In addition, Michael planted some Wild Allamanda (*Urechites lutea*). This is a fast-growing vine. In this sunny section, it can be useful as a ground cover. I may move it later, depending on what I decide for this area. Railroad Vine (*Ipomoea pes-capre*) has crept in under the fence from the front yard. It likes sunshine and is a hardy groundcover.



Two of the three Cocoplums, top. Note the Railroad Vine creeping in seeking the sun. Below is a picture of the Spanish Stopper in the corner with Wild Allamanda in front.



Finally, not in the plan, I added two Muscadine Grape plants (*Vitis rotundifolia*) against the posts that support the platform for the generator and central heat pumps. When they begin producing fruit in a few years, it will be interesting to see who gets to it first—the wildlife or I. In order to provide a seamless integration of the old and new, we relocated a few plants from their original positions to other places in the garden.

There is still much to do—no garden is finished in one fell swoop for most of us. Nor would we want it to be. Gardening is a process, accompanying us as we move through life. Like home furnishings, you acquire what you love over time and as your budget permits.

Here is one final picture, showing one view of the integration of the new space into the older, existing garden.

By the next issue, I should have additional progress to show.



A Few Pictures from the Chelsea Flower Show, May 2016

In May, I was fortunate to be able to spend a day at the Chelsea Flower Show in London. This is the largest outdoor flower show in the world—the Philadelphia Flower Show is the largest indoor one. The Chelsea Flower Show takes place annually, in May, on 11-acres of the grounds of the Royal Chelsea Hospital. Sir Christopher Wren (1682-1692), built the hospital. King Charles II intended it to be a home for soldiers who were unfit for further duty because of injury or old age. It serves that purpose to this day.

For this year's show, 800 garden designers spent nearly a month creating a variety of gardens, hauling in large trees, rocks, and plants to create dozens of gardens. A special feature was nearly 300,000 handmade, crocheted poppies. The poppies are a tribute to those who served in all wars. People from a variety of cultures, ranging in age from two to 102 years old, created them. If you ever have a chance to go to this show, do so.



A field of hand-made poppies.



One of many garden settings created during the month before the show.



A water garden.

Send your Articles and Photos

The next Issue of *The Dirt* is October 2016. The Deadline for articles is September 12. Share your passion for gardening with your fellow Master Gardeners by writing an article for *The Dirt*. Include images where possible. However, if you include images they must fall under one of the following guidelines:

- your own
- UF/IFAS image
- open access image, as in wiki-commons, where all rights are open and then photographer is credited
- used with the express permission of the photographer

When you do send images, please do not embed them within the article. Include them separately.

I would like to start a photographer's gallery within the newsletter so if you take photographs of plants or trees, send them in with a description, even without an accompanying article, and I'll publish them with the description as well as a credit to you, the photographer.

Send your articles, images, and your photos to Dianne Fecteau at dianne@kendiacorp.com. My phone number is 727.366.1392.

All articles are subject to editing. In addition, Theresa Badurek, Urban Horticulture Extension Agent and Master Gardener Coordinator, reviews and approves all articles prior to publication.

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