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### October 2022 Issue

Hello fellow Master Gardener Volunteers. We hope you weathered Hurricane Ian without major damage. We were certainly fortunate, though our thoughts go out to those who were impacted.

### Why Compost?

*By Linda Smock, Master Gardener Volunteer*

Perhaps a better question would be, “Why not compost?” But that sounds more negative, so let’s take the positive approach!

One particularly good reason for composting is that it saves you money. You don’t need to purchase as much fertilizer since compost naturally provides many of the nutrients needed by your plants. It enriches your soil and provides dirt that holds moisture better than the naturally sandy soil of Pinellas. Compost also saves money in that you will not need to water as often once your soil has enough compost in it. Another way it saves you money is that compost amended soil may have fewer plant diseases and pests, so you need to spend less time dealing with those pests and have less need for natural or chemical pest control. Indirectly, it also saves you money because you send less garbage to the county to have to dispose of through the environmental services they offer.

Once you have added compost to your soil, you will have more naturally occurring beneficial bacteria and fungi to break down the organic matter. This will help compost the leaves and blossoms that naturally drop from your plants, again helping you have better soil and spend less money.



Composting is also rewarding. You feel good that all those fruit and vegetable scraps, eggshells, coffee and tea grinds, paper, and leaves are being put to effective use. Seeing the worms and insects do the work, with the exception of turning regularly, brings a satisfaction that you are contributing to the health of the earth. Working it into your existing soil and thinking of how you have helped our environment be healthier makes turning the compost worthwhile.

It takes an intricate ecosystem to keep our environment healthy. Composting plays a key role and takes what most people think of as garbage and turns it into a wonderful resource that helps feed us. It is ground changing. So why not compost?



## Alternate Places for Pollinators

*By Linda Smock, Master Gardener Volunteer. All photo credits UF/IFAS.*

Pollinators – we all know we need them, and we all take them for granted. We learned in elementary school that they are essential for the reproduction of most of our plants. We know that without them, our grocery stores and fruit stands would not have our favorite fresh vegetables or delicious fruits, nor would we have our breads and other grain products. Most of us know that bees and butterflies are pollinators but are not tuned in to all the other insects that pollinate our plants including a variety of flies.



*Bumble bees and monarch butterflies represent only two of many insect pollinators.*

Some of us realize that pesticides that kill mosquitoes and the other one percent of insects that create problems for us, also kill bees, butterflies, and other beneficial insects. Many more farmers and gardeners are trying to use natural pesticides rather than chemical ones, and some are trying to use mechanical control.

We are also aware that more and more of our farmlands and public properties are being converted for use of housing, industry, and business. This reduces the amount of space available for pollinators to have the natural habitat they need to sustain themselves. We may not have thought about the potential impact this has on one of our daily needs: food.

So, what can we do?





In a recent webinar, Butterfly Conservation Success Stories, Dr. Jarret Daniels of the University of Florida gave several suggestions. The pictures by -

1. **Roadsides:** most of us have seen wildflowers along our roadsides and marveled at their beauty, never thinking about the benefit they are to our fruit, vegetable, and grain crops. Pollinators are attracted to these large areas of flowering plants and then visit nearby farms and gardens. They pollinate the grasses that the cattle and other animals eat as well as the grains, vegetables, and fruits that we eat. Because agriculture is the second largest industry in Florida, this is extremely important.



*Spanish needles grow in the roadside.*



*Wildflowers provide a margin near beehives.*

2. **Margins around fields, target crops:** farmers plant wildflowers either alongside of their crops or on a border or borders. This aides in getting the needed insects to their fields. They have to be careful with pesticides because what kills one bug often kills many others including the beneficial ones that pollinate their plants.
3. **Detention ponds:** when detention ponds are not full of water, they make a great location for pollinator plants. Many detention ponds are empty much of the year, and if left to grow wildflowers, they can benefit the area and provide gardeners and farmers with pollinators. The plants in a detention pond (or around it, or on roadsides, etc.) can be mowed about every six weeks and produce new sets of blooms for bees, butterflies, and other pollinators.



*Native plants flourish in a detention pond.*

4. **Utility corridors:** utility companies have corridors that extend for miles and miles, providing a wonderful habitat for native wildflowers. Because the areas have been disturbed, it may be necessary to reseed the space for the native plants. Insects that pollinate the wildflowers will visit nearby farms and gardens, providing an essential service to the plants.
5. **Urban gardens and yards, greenspaces:** balanced plant diversity, especially with native Florida plants, in our gardens can provide bloom abundance in our yards. Research has shown that the butterflies and bees we would want in our pollinator gardens prefer a lot of the same plant, with diversity of a small number of plants.



*Pollinator plants thrive in this urban garden.*

In conclusion, if we don't take action, we can lose our pollinators and thus much of our food supply. We need to include them in our plans! Loss of habitat could have very serious consequences. (All photos by the University of Florida.)





## Poor Butterflies: Poor Planet!

By Ellen Mahany, Master Gardener Volunteer. All photo credits UF/IFAS.

Recently, a pest control company refused to treat for pests inside my house. Instead, the technician recommended spraying the perimeter every three months. He concluded, "You have a choice between dead bugs in the house or dead butterflies in the yard." Of course, I opted for live butterflies and no spraying anywhere.

I pity poor butterflies, subject to so many threats. Spraying yards illustrates one of the three well-known causes of butterfly decline: **chemical pollution**; the other two are **habitat degradation** and **climate change**. As a result, some butterfly species have long been at risk for eventual extinction.

Currently, only ten butterfly species are listed as endangered by the U.S. Fish and Wildlife Service (USFWS). Under the auspices of the Endangered Species Act of 1973, USFWS "Provides a program for the conservation of threatened and endangered plants and animals and the habitats in which they are found." Its partner in enforcing protection of threatened wildlife is The U.S. National Oceanic and Atmospheric Administration.

Four Florida butterfly species so seriously endangered as to have made this list are Bartram's Scrub-Hairstreak (*Strymon acis bartrami*), Florida Leafwing (*Anaea floralis*), Miami Blue (*Hemiargus thomasi*), and Schaus' Swallowtail (*Papilio aristodemus ponceanus*). These species reside in South Florida and the Florida Keys.

Bartram's Scrub-Hairstreak and the Florida Leafwing, formerly abundant in Miami-Dade and Monroe counties, share the shrinking Pine Rocklands habitat. They also share a now-rare host plant, pineland croton (*Croton linearis*). Once commonly seen, these butterflies currently are found only in Everglades National Park. Added to their disappearing habitat and host plant, these butterflies face **mosquito control**, the **introduction of exotic plant and insect species**, **butterfly collecting**, and **fire suppression**, which hinders undergrowth of their host plant.



*Florida Leafwing*



*Bartram's Scrub-hairstreak*



The Miami blue and Schaus Swallowtail were victims of a common enemy, the **1992 Hurricane Andrew**, which passed directly over Biscayne National Park and Everglades National Park. It severely damaged the tropical hardwood hammocks, the habitat of both species. According to USFWS, only 73 Schaus butterflies survived this disaster, leading to another threat, inbreeding, limiting the species' ability to adapt to a changing environment. The Schaus Swallowtail is found only in Key Largo and the islands in the Biscayne National Park. The Miami Blue has been spotted at the Key West National Wildlife Refuge, the focus of its conservation.



*Schaus Swallowtail*



*Miami Blue*

The USFWS Endangered List establishes protection for 133 plant and animal species. Of course, a wildlife species does not have to make the Endangered List to be in difficult circumstances. Consider both the migratory and nonmigratory monarch butterflies (*Danaus plexippus*). The National Wildlife Federation states that their populations in the United States have declined by approximately 90 percent since the 1990s. Who is not aware of the rarity of milkweed, the monarch's only host plant, and a popular nectar plant for other pollinators?

The butterfly has been compared to the canary in the coal mine, used many years ago because of its high sensitivity to carbon monoxide and other lethal gases. A dead canary was a warning that a mine was too dangerous to enter. Dwindling butterfly populations warn us of the effects of **chemical pollution, habitat degradation and climate change**. What threatens butterflies threatens wildlife, threatens people, threatens the planet.

Poor butterflies, poor wildlife, poor people, poor planet! We need a myriad of solutions.

**(Footnote: So far, I have not found dead bugs in the house. Perhaps I am protected by a balance of insects in my pollinator garden.)**





## A Master Gardener on Vacation

*By Rebekah Heppner, Master Gardener Volunteer. Photo credits: Rebekah Heppner*

My husband and I recently took a trip out west to see Mt. Rushmore and the amazing countryside in Southwest South Dakota. We both returned with dozens of photos on our I-Phones, but our collections are different from each other. His shows the famous monuments at Mt. Rushmore National Memorial and Devils Tower National Monument, the bison crossing in front of our car in Custer State Park, the waterfalls of Spearfish Canyon and the other-worldly landscape of Badlands National Park. Mine? Flowers. Plants. Trees. Surprised? I bet you have some vacation photos like these. (Editor's note: extra credit to the Master Gardener Volunteer who can help Rebekah identify her vacation plants!)



*Spearfish Canyon*



*Devils Tower*





*Badlands*



*Mount Rushmore*



*Custer State Park*





## Tell us About your Project!

We the editors of The Dirt want to spotlight Master Gardener projects so everyone can hear about them. If you are working on a project you would like to share, please let us know. We can help write an article through an interview process. The goal is to highlight the great work our volunteers are doing in the community. Reach out to us using the email below. Thank you!

## Submit Your Articles and Pictures to The Dirt

*The Dirt* is published January, April, June, and October for Master Gardeners by Master Gardeners. The deadline for the next issue is **January 6, 2023**. If you would like to submit an article or photo feature, see the following guidelines:

- Articles should be 250 to 300 words.
- The topic can be anything you would like to share to educate your fellow gardeners.
- You may send pictures, poetry, or garden-related articles.
- Submit only Word documents, not PDF, so that edits are possible.
- Send tips or information about a community or Master Gardener project for a potential article.
- Send photos as attachments and include proper attribution.
- Send submissions to Susan Ladwig at [ladwig.susan@gmail.com](mailto:ladwig.susan@gmail.com)

**Editors:** Susan Ladwig and Amy George

**Graphics:** Paula MacDonald

**Advisor:** Theresa Badurek, Master Gardener Coordinator and Urban Horticulture Extension Agent. The advisor reviews and approves all submissions prior to publication.

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