Atala butterfly

The rare atala butterfly - also called coontie hairstreak - (Eumaeus atala) has migrated to Manatee County. Typically only seen in southeast Florida, the first sighting in Manatee County was in the Ware's Creek area in late spring of 2023 followed by sightings of colonies in Palma Sola and most recently at the Manatee County Extension office. This beauty was once thought to be extinct.

**Physical Attributes:** The atala is about 2 inches in size. The closed forewing is black with three rows of iridescent blue spots. The underside of the hind wing has a large bright red spot, and the abdomen is red-orange. The male open wing is Caribbean blue or green while the female is bright iridescent royal blue.

**Nectar:** The atala has a short proboscis (straw-like tongue) and needs easily accessible nectar. It prefers native white flowers like fiddlewood, beautyberry, button sage and wild coffee, but they will feed on any nectar plant.

**Eggs:** Small, cream-colored eggs are laid in clusters of up to sixty on the new leaf tips of the coontie (Zamia integrifolia). They may be covered with bright orange scales to warn predators that they are toxic.

**Caterpillars:** Newly hatched larvae are tiny and flesh-colored, turning bright red within a day or two (again to warn predators) with two rows of bright yellow spots.

**Chrysalis:** The mature pupa is tan, darkening to deep brown. These may be clustered together, usually on the host plant (coontie) close to the ground.
**Behavior:** Atalas are year-round breeders. Males and females are relatively sedentary if nectar and host plants are plentiful. They have a slow, moth-like flight pattern. Males perch on top of leaves while females tend to hang upside down under the leaf.

![Atala caterpillar](image)

**Host Plant:** Their only host plant is the native coontie, the only cycad native to North America. Early settlers and indigenous peoples used the coontie as a food source. War efforts in the 1940s utilized coontie as a source of starch. Coontie populations were decimated by over-harvesting in the early part of the 20th century. In the last several years, the coontie has become a staple in many landscapes and butterfly gardens. As it has become more prevalent, so have the atala butterflies. Coonties are found abundantly in Zones 8-11 in open pine woods and coastal woodlands. It is dioecious, with male and female plants, and produces cones, the male being slender and the female shorter and squattier.

Coonties produce cycasin, a natural toxin. As the atalas consume the leaves, they sequester the toxin and pass it along to pupae, adults, and eggs. Predators beware! More information:

Atala:
[https://entnemdept.ufl.edu/creatures/BFLY/Eumaeus_atala.htm](https://entnemdept.ufl.edu/creatures/BFLY/Eumaeus_atala.htm)
[https://research.fit.edu/florida-tech-campus-wildlife/a-conservation-story/](https://research.fit.edu/florida-tech-campus-wildlife/a-conservation-story/)

Coontie:

**Master Gardener Plant Sale October 7th!**
Mark your calendar and register on EventBrite. On sale will be natives, edibles, trees, shrubs, ornamentals, hanging baskets, succulents, groundcovers, and more - all priced to sell. Importantly, know that most of these plants are ecotypes (i.e., seed sourced and/or cloned, from local plants.) This means they are adapted to our area of Florida. To register, go to [https://bit.ly/3OPgF7N](https://bit.ly/3OPgF7N). Funds raised go to support our Educational Gardens and public outreach programs.
This is the message that Lisa wishes to convey to every county resident. Whether you are a farmer, a home or community gardener, a parent, a pest control operator, a teen about to graduate, a recreational angler, or a commercial nurseryman, chances are Extension will have answers or guide you to the right resource.

In Florida, the Cooperative Extension Service is a partnership between county governments, the University of Florida and the USDA (United States Department of Agriculture). The objective is to provide solutions by “extending” university-level research and education into local communities. Extension partnerships exist in every state in the U.S., created at a time when most of our population was rural.

Manatee County Extension offers largely free services to county residents ranging from family nutrition, couples counseling, finance and health workshops, to Florida-friendly horticultural advice, and home irrigation system evaluations. On the commercial side, there are agents responsible for certification of pest control operators, advising nurseries and landscape companies, and helping farmers and livestock ranchers. There is even an agent to consult with commercial fisheries. The oldest program is 4-H, a youth development initiative that teaches kids life skills ranging from community service to agriculture to STEM (Science, Technology, Engineering, and Math).

Lisa is the Sustainable Food Systems Agent for large and small fruit and vegetable producers in the county, as well as the interim CED. In the latter role, she welcomes opportunities to share contributions and impacts of Extension with the county commissioners to whom she reports. The numbers in Manatee County are impressive: over 300,000 clientele contacts per year via consultation, group learning, social media, and educational materials; 95% resident satisfaction with Extension services; over 359 million gallons of water saved by residents and landscapers via Extension education. Extension volunteers (including Master Gardeners) contribute over 15,000 hours per year, a dollar value of over $435,000. Adults and youth reporting improvements in healthy eating, activity practices, and health parameters are over 25,000.

Lisa wants every satisfied customer to contact their county commissioner and let them know the benefit that Extension provides. “We are the best kept secret in the county,” she said.

Funding for Manatee County's Extension rests 51% with the state of Florida, 44% with the county and 5% with the “Feds.” However, some programs – like Master Gardener Volunteers – raise their own funds for their educational outreach activities.

My dad – raised in rural west Texas – referred to his Extension as simply “the Service.” And indeed that’s what it is. A service to the county and community. For more information: https://sfyl.ifas.ufl.edu/manatee/
LANDSCAPING FOR SCREENING, PART 3: VINES AND WINDBREAKS
By Kristine Del Vecchio, Master Gardener Volunteer

Vines: Consider these horizontal plants to cover a fence, trellis, or pergola to provide private areas within a larger garden space.

- **Star jasmine** (*Trachelospermum jasminoides*) is a twining vine with evergreen foliage that features sweet smelling flowers in the spring. It is not fast-growing and requires more shade and water than other selections. [https://gardeningsolutions.ifas.ufl.edu/plants/ornamentals/star-jasmine.html](https://gardeningsolutions.ifas.ufl.edu/plants/ornamentals/star-jasmine.html)

- **Queen’s wreath** (*Petrea volubilis*) is a tropical vine that resembles wisteria with its drooping lavender flowers that bloom on racemes from February to June. While not a native to Florida, it is perfectly adaptable to our climate. Note that this vine is "variably deciduous," meaning leaf drop depends on the climate and weather in your specific area. Since it may drop leaves, its ability to provide year-round screening may be limited. While queen’s wreath can reach 40 feet height, it can be kept much smaller with pruning. Queen's wreath will grow best in full sun but can tolerate partial shade. This plant has high drought and wind tolerance. [https://gardeningsolutions.ifas.ufl.edu/plants/ornamentals/queens-wreath.html](https://gardeningsolutions.ifas.ufl.edu/plants/ornamentals/queens-wreath.html)

Windbreaks: A windbreak is a screen that can withstand high winds and blowing sands. It also serves to protect other ornamentals in the landscape. Windbreaks can reduce soil erosion while also providing privacy and beautifying the landscape. When considering appropriate plants for windbreaks, we think of plants with dense foliage that are salt and drought tolerant and thrive in full sun locations. Some of the best plants for this purpose are:

- **Sea grape** (*Coccoloba uvifera*) and its cousins **pigeon plum** (*Coccoloba diversifolia*) and **sea plum** (artificial hybrid from sea grape and pigeon plum).

The sea grape is a native plant with large 8-inch diameter round leathery leaves that are green until winter when they change to red. In springtime, following the inconspicuous white flowers, clusters of grape-like fruits form, changing from green to purple in summer. Sea grapes are dioecious (male and female are separate plants). Multi-branched sea grapes grow into large plants, growing up to 50 feet tall and spreading 20 to 30 feet. These hardy plants grow in full sun to partial shade and in a variety of well-drained soils. The sea grape used as a screen will benefit from pruning, but because of the large leathery leaves it is better pruned by hand, leaving a more natural look. While the foliage is only moderately dense, it provides an effective windbreak in coastal settings. It is a full sun lover that is drought- and salt-tolerant.
Pharmaceutical Plants
(But do not try this at home!)
By Amy L. Stripe, Master Gardener Volunteer

A common chemotherapy option for cancer patients is paclitaxel which is derived from the Pacific yew tree (*Taxus brevifolia*). This drug has been widely used as a cancer treatment since the 1960s. As a plant nerd (and cancer patient myself) I wanted to find out more about “pharma” plants.

Whilst herbal “remedies” go back millennia, only a few are pharmaceutically effective, meaning they work on a molecular level. Many more are therapeutic, effecting physiological changes. Regardless of their mode of action, any herbal remedy can be dangerous if used without medical supervision. Keep in mind that many herbals have never been tested for efficacy or toxicity, so never try to dose it yourself!

Pharmaceuticals include members of the Platanaceae (Plane tree family) such as foxglove (*Digitalis lantana*). The cardiac glycosides digoxin and digitoxin are extracted from this plant and are used to treat heart failure... but can also cause it!

Salicin (source of acetylsalicyclic acid) is sourced from the bark of the willow tree (*Salix spp.*) It is common aspirin. Many drugs are derived from the opium poppy (*Papaver somniferum*): importantly, the pain-killer morphine.

Other pharma plants include the Madagascar periwinkle (*Catharanthus roseus*), the derivatives of which are called vinblastine and vincristine, effective in cancer treatments. For malaria there is quinine derived from *Cinchona* spp., and goat’s rue (*Galega officinalis*) yields the drug metformin to treat Type 2 diabetes.

Most of these pharmas are produced synthetically today, but for an interesting read on those that still rely on the living plant, go to: https://www.antheia.bio/post/three-plant-based-pharmaceuticals-taxol-scopolamine-and-buprenorphine
Also visit: https://www.fs.usda.gov/wildflowers/ethnobotany/medicinal/ingredients.shtml

On the therapeutic side of the equation are a cornucopia of plants and herbs such as aloe, chamomile, valerian root, curcumin, *Echinacea*, lavender, stinging nettle, camphor, cinnamon, ginger, etc. that have a physiological effect. Once again, use these sensibly. Only a few of these have science to back them. And too much of ANYTHING can yield negative outcomes!

https://www.urmc.rochester.edu/encyclopedia/content.aspx?contenttypeid=1&contentid=1169
Bromeliads and Mosquitoes
By Maureen Hirthler, Master Gardener Volunteer

Bromeliads are a beautiful addition to a home landscape because they come in many colors and varieties and need minimal care. But it is important to know they are a breeding ground for mosquitoes. Bromeliads hold water at the axial of each leaf; a single bromeliad can house 100 mosquito larvae!

Mosquitoes are annoying and they can transmit viral diseases such as dengue, yellow fever, Zika, West Nile Virus, and others. Mosquitoes can also bite your pets and transmit viral illnesses and parasites.

We have a native *Wyeomyia* spp. which does not transmit pathogens to humans and emits a biocontrol volatile against yellow fever and Asian tiger mosquitoes, but they still bite. Research is ongoing in this area.

Many people are very allergic to mosquitoes and can react with low blood pressure, cramps, or difficulty breathing. We advise those people or those who are immunocompromised not to grow bromeliads.

Several ways exist to control mosquito production in bromeliads. First, heavily spray our bromeliads with fresh water weekly to flush out stagnant water. You may need to fertilize your plants since the spray washes away many nutrients.

*Bacillus thuringiensis* (Bt) subspecies *Israelensis* is an effective larvicide to control mosquitoes and is found in most home and garden supply stores. It is usually sold in granules or pellets in slow-release formulations that can be added directly to the water in the plant. I crumple doughnut-shaped “mosquito dunks” and sprinkle the granules weekly, especially into the center of plants. Bt does not harm plants, people, pets, or the environment.

Bromeliads require ongoing maintenance to prevent mosquito production. They can be an exciting addition to your home landscape.

More information can be found at [https://edis.ifas.ufl.edu/publication/IN1343](https://edis.ifas.ufl.edu/publication/IN1343) and [https://edis.ifas.ufl.edu/publication/EP337](https://edis.ifas.ufl.edu/publication/EP337)

### Master Gardener Volunteer Plant Clinics

<table>
<thead>
<tr>
<th>Location</th>
<th>Address</th>
<th>Day(s)</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bob Gardner Park</td>
<td>2710 White Eagle Blvd., Lakewood Ranch</td>
<td>Third Sundays</td>
<td>9AM – 12PM</td>
</tr>
<tr>
<td>Crowder Bros. Ace Hardware</td>
<td>5409 Manatee Ave W., Bradenton</td>
<td>Third Saturdays</td>
<td>9AM – 12PM</td>
</tr>
<tr>
<td>Central Library</td>
<td>1301 1st St. W., Bradenton</td>
<td>Third Saturdays</td>
<td>11:30AM – 2:30PM</td>
</tr>
<tr>
<td>Lakewood Ranch Farmers Market</td>
<td>Waterside Place, 7500 Island Cove Terrace, Sarasota</td>
<td>First Sundays</td>
<td>10AM – 2PM</td>
</tr>
<tr>
<td>Rocky Bluff Library</td>
<td>6750 US Hwy 301 N., Ellenton</td>
<td>Second &amp; Fourth Saturdays</td>
<td>10AM – 1PM</td>
</tr>
<tr>
<td>St. George’s Episcopal Church</td>
<td>912 63rd Ave. W., Bradenton</td>
<td>First and Third Thursdays</td>
<td>9AM – 12PM</td>
</tr>
<tr>
<td>Island Branch Library</td>
<td>5701 Marina Dr, Holmes Beach</td>
<td>First Saturdays</td>
<td>10AM – 1PM</td>
</tr>
<tr>
<td>UF/IFAS Extension Manatee County</td>
<td>1303 17th St. W., Palmetto</td>
<td>Every weekday except Wednesdays</td>
<td>9AM – 4PM</td>
</tr>
</tbody>
</table>

Tel. 941-722-4524
manateemg@gmail.com

---

Bromeliads | Photo: UFL
---

Bromeliads are a beautiful addition to a home landscape because they come in many colors and varieties and need minimal care. But it is important to know they are a breeding ground for mosquitoes. Bromeliads hold water at the axial of each leaf; a single bromeliad can house 100 mosquito larvae!

Mosquitoes are annoying and they can transmit viral diseases such as dengue, yellow fever, Zika, West Nile Virus, and others. Mosquitoes can also bite your pets and transmit viral illnesses and parasites.

We have a native *Wyeomyia* spp. which does not transmit pathogens to humans and emits a biocontrol volatile against yellow fever and Asian tiger mosquitoes, but they still bite. Research is ongoing in this area.

Many people are very allergic to mosquitoes and can react with low blood pressure, cramps, or difficulty breathing. We advise those people or those who are immunocompromised not to grow bromeliads.

Several ways exist to control mosquito production in bromeliads. First, heavily spray our bromeliads with fresh water weekly to flush out stagnant water. You may need to fertilize your plants since the spray washes away many nutrients.

*Bacillus thuringiensis* (Bt) subspecies *Israelensis* is an effective larvicide to control mosquitoes and is found in most home and garden supply stores. It is usually sold in granules or pellets in slow-release formulations that can be added directly to the water in the plant. I crumple doughnut-shaped “mosquito dunks” and sprinkle the granules weekly, especially into the center of plants. Bt does not harm plants, people, pets, or the environment.

Bromeliads require ongoing maintenance to prevent mosquito production. They can be an exciting addition to your home landscape.

More information can be found at [https://edis.ifas.ufl.edu/publication/IN1343](https://edis.ifas.ufl.edu/publication/IN1343) and [https://edis.ifas.ufl.edu/publication/EP337](https://edis.ifas.ufl.edu/publication/EP337)
Florida & Some Seven Dwarfs
By Jennifer Tonge-Martin, Master Gardener Volunteer - Photo by UFL

What is a “dwarf” plant and why do we need them? We love the sight of a majestic, full-grown live oak or Bismarck palm, yet growing something that large in our small urban/suburban landscapes can be disastrous. Many home landscapes need smaller plants to maintain the correct scale.

But relying on the designation of “dwarf” can be a mistake. Many of us have suffered the consequences of planting a lovely little “dwarf” shrub in a small space, only to have it morph into a giant that we must either prune back constantly or get rid of entirely. We need to understand the different ways a plant becomes a dwarf.

A plant can be dwarfed by restricting its access to nutrients, sun, water, etc. A bonsai is a perfect example of extreme deprivation causing miniaturization. Many plants stay small and manageable in the north due to winter “die back.” Put them in Southcentral Florida and they will achieve their full, sometimes monstrous potential. Or we can keep some sun-loving plants smaller, or less full-looking, by planting them in the shade, but they will not thrive. There are better methods of producing a small plant.

Plant breeding hybridizes new cultivars that may grow shorter or slower growing than their “parents.” You will know a cultivar by the name in single quotes after the scientific name, or the designation “var.” (for “variety”). An example of this is the nativar (native cultivar) of wild coffee, Psychotria nervosa ‘Little Psycho’. The species plant grows easily to 10 feet. ‘Little Psycho’ is a much more manageable 30 inches tall and described by the breeder as “more floriferous” than the species.

With ‘Purple Pixie’ and ‘Purple Daydream’ loropetalum lets you avoid pruning this lovely hedge plant, Chinese fringe flower (Loropetalum chinense). The full-size bush grows 15 feet tall. Pruning at the wrong time eliminates the pink fringe flowers and may introduce diseases such as loropetalum decline.

When no pruning is done, the dwarf varieties are nearly disease-free, as well as staying a petite 2-3 feet tall.

Be careful which cultivar you choose. For instance, native Walter’s viburnum (Viburnum obovatum), though only 3 feet tall in the north, thanks to the cold winters, is often 30 feet tall at maturity here. ‘Mrs. Schillers Delight’ and ‘Compacta’ varieties grow to about 5 feet tall, ‘Whorled Class’ to 8 feet, and ‘Densa’ stays a miniature 2-3 feet. However, ‘Withacoochee’, though a true dwarf cultivar that stays only half the height of the species plant, easily grows 10-12 feet tall.

There are many dwarf varietals of crape myrtle (Lagerstroemia indica), a popular flowering tree. Choose the variety you want by size, as there are some that grow only 4 feet tall all the way up to ones that are 40 feet at maturity. Clusia rosea is also called the “autograph plant” since any cut or scratch will be permanently inscribed on its leaves. This looks terrible when the plant is sheared with hedge clippers; try the dwarf cultivar ‘Nana’ for a 4-foot hedge that requires little or no pruning.

Native Dwarf Fakahatchee grass (Trypsacum floridana) is a natural miniature of full-sized Fakahatchee grass (Trypsacum dactyloides). Classified as a different species, it may be a spontaneous mutation of T. dactyloides, referred to as a “sport.” T. floridana stays under 4 feet tall, but its larger brother is over 6 feet tall and wide.

The 7th popular dwarf for Florida comes with a big “caveat emptor”. Native firebush (Hamelia patens var. patens) is loved as a great plant for wildlife, with nearly year-round red tubular flowers. It tolerates dry, alkaline soils, shade, or sun. But without severe pruning or winter freezes, it easily tops 12 feet tall and wide. In pursuit of a dwarf variety, ‘Firefly’ (Hamelia patens var. glabra) was introduced. Though the leaves are smaller than the species, and it is supposed to stay only 5 feet tall and wide, it grows very quickly and requires hard pruning at least once a year to keep it that size. Worse, it spontaneously hybridizes with the wild variety and may harm native habitats. The hybrid’s flowers are a lighter orange than the species. Pick your firebush site carefully, whether native or hybrid, offering it the space it deserves.

Using dwarf varieties lets us enjoy many types of plants while avoiding landscapes that overgrow and “dwarf” our homes and gardens. Let’s follow the first rule of Florida-Friendly Landscaping™, and put the “right plant in the right place.”

The University of Florida is an Equal Opportunity Institution

### SEPTEMBER CALENDAR OF EVENTS

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/8/23</td>
<td>9:00AM</td>
<td><strong>Growing Herbs in Florida</strong> In this first of a two-part series, learn about culinary herbs that grow well in our warm and cool seasons. This class covers types of herbs, planting and growing tips, and a tour of the herb gardens.</td>
</tr>
<tr>
<td>9/14/23</td>
<td>11:30AM</td>
<td><strong>Talk Plants with Me</strong> Submit your questions to our Horticulture Agent for live Q&amp;A. We will talk about hot topics in the plant world and may have a few guests join us along the way.</td>
</tr>
<tr>
<td>9/15/23</td>
<td>9:00AM</td>
<td><strong>Propagating and Harvesting Herbs in Florida</strong> In part two, learn propagation techniques for herbs including seeding, cuttings, and division. You will also learn about harvesting and using these flavorful and healthful plants.</td>
</tr>
<tr>
<td>9/21/23</td>
<td>11:00AM</td>
<td><strong>Gardening Basics: The Scoop on Dirt</strong> This course will cover basics of Florida soils and how to build a healthy foundation for your plants.</td>
</tr>
<tr>
<td>9/21/23</td>
<td>6:30PM</td>
<td><strong>Florida Native Gardening</strong> Participants will learn about Florida-Friendly and Native plants, how to incorporate them into their landscapes and will participate in a planting activity where they will pot up native seeds to take home.</td>
</tr>
<tr>
<td>9/26/23</td>
<td>8:00AM</td>
<td><strong>Mangrove Trimming Best Management Practices</strong> This workshop will cover: Mangrove Ecology and Identification, Mangrove Trimming Regulations, Mangrove Trimming Demonstration of Best Practices.</td>
</tr>
<tr>
<td>9/28/23</td>
<td>11:00AM</td>
<td><strong>Gardening Basics: Which End is Up?</strong> This class will cover planting methods for a variety of different plants, from herbs to trees and everything in between.</td>
</tr>
<tr>
<td>9/29/23</td>
<td>10:00AM</td>
<td><strong>Creepy Crawlies: Worm Composting</strong> Now you can compost even if you live in an apartment, condo or mobile home! Worm bins are easily maintained indoors with no mess or smell. Workshop is $5 but after the class you'll have an opportunity to purchase a worm composter for the special discount rate of $69.00 plus tax.</td>
</tr>
</tbody>
</table>

University of Florida IFAS Extension - Manatee County  
1303 17th St. W., Palmetto, FL 34221  
**Telephone:** (941) 722-4524  
**Website:** [http://sfyl.ifas.ufl.edu/manatee/](http://sfyl.ifas.ufl.edu/manatee/)  
**Email:** ManateeMG@gmail.com

---

**Master Gardener Volunteer Amy Stripe & Joy Dersken, Co-Editors** Contents reviewed & edited by Alyssa Vinson, Extension Agent. The University of Florida is committed to providing universal access to all our events. For disability accommodations such as alternate formats of written material, please contact Katie Granberg katiebg@ufl.edu at least 1 week in advance.