



August 2024

Vol. 26 No. 7

<http://www.tgcfersoc.org>

Our meeting this month will be “blended” by meeting in-person at the Judson Robinson, Jr. Community Center (2020 Hermann Dr., Houston, 77004 and/or via GoToMeeting – member’s choice.

TGCFS MISSION STATEMENT

Organized in 1998 by a group of fern enthusiasts (a.k.a. fern lovers, fernies, pteridologists), to cultivate, foster and promote interest in ferns and fern allies, the TGC Fern Society presents educational programs including “how to” sessions, presentations by local, national and internationally known fern experts, and field trips and tours-thus providing a forum for fern enthusiasts to visit, learn, share plants, ideas, information, and have a good time. A very informative monthly newsletter is published for members, and special events include presentations to other groups, fundraiser events, and a year-end holiday season party. **Regular meetings are held at 2:00 P.M. on the third Sunday of each month at the Judson Robinson Jr. Community Center, 2020 Herman Drive, Houston, TX, 77004. Phone (713) 284-1994.**

A message from our President:

Hi, everyone!

Well, I have to agree that July was the longest year we have had in a while! I hope everyone is back home and all your repairs are done or at least underway. Now summer is here with our very hot temperatures. Stay safe, we don’t know what the next six weeks could bring us. At least we have gotten enough rain to help all our plants well-watered up until now.

We had one of our few non-fern talks this past meeting, learning all about beneficial bugs and those that are pest. I know everyone with flowering plants really enjoyed the information on all the pollinators and how to recognize their eggs, so you knew what not to disturb or panic over.

This next month is all about growing from spore, it will be an in-depth talk on the sori, when the spore is ready to be collected, how to collect and store. How to put down the spore, and we will be putting down some since our last class failed, but I figured out why they failed and will discuss that with you. We sill also cover the fern life cycle which is unique to fern. I plan on a couple handouts. If you have a 10x-20x hand lens please bring it to the meeting, I will bring a few extra that can be used.

We had a good board meeting and a few items I will be talking with you be for we start the meeting. Just a reminder, the doors are open by 130p, we really try to start the meeting at 2p. Let’s try to be in our seats at start time.

We had a fantastic raffle last month, we would like to thank everyone that brought plants to raffle I think everyone one that bought a ticket got a plant, some got 6 plants. Thank you!!

We want to welcome those that have started attending in person now, it’s great to see you! We want to start getting everyone that is in town and not ill to try to be at the meetings. In person is so much fun!

We do not have the meeting lined out yet for September, but I will let you know once everything is confirmed.

See you at the meeting,

Darla



Dues!

Dues for 2024 are currently being collected. If your 2024 dues have been paid you should have received an email from Beth Ayer in September. If you have any questions about the status of your dues, please contact Christopher Goodgame at: chris.goodgame@protonmail.com.

Your dues may be paid in person at a meeting or sent by mail to: Christopher Goodgame, PO Box 66116, Houston, TX 77266. Checks should be payable to: Texas Gulf Coast Fern Society (TGCFS).





2024 Officers and Committees:

President:	Darla Harris
Vice President:	Patrick Hudnall
Secretary:	Ceil Dow
Treasurer:	Larry Rucker
Board Members-at-Large:	Ruby Adams Christopher Goodgame
Education Chair:	Darla Harris
Hospitality Chair:	TBD
Library:	Fred Robinson
Membership Chair:	Christopher Goodgame
Newsletter:	Christopher Goodgame
Spore Exchange:	Patrick Hudnall
Ways and Means:	Larry Rucker
Raffle, Store, etc.	Rick Dow
Web Master:	Malcolm McCorquodale
Welcoming at Door:	TBD



New Newsletter Chair

Christopher Goodgame

I would like to at this time welcome and thank Christopher taking on our newsletter duties. He has some new ideas and will be gradually changing up the newsletter and adding more content and details.

He did a great job for last month's newsletter in spite of no internet service for a week or so. I think that happened to several people as well as power for most of us as I was told.

We would like to reach out to those of you that have a favorite fern to write a short article for us and the more we add the better the newsletter will be.

Thank you, Christopher!!



August Meeting:

This meeting we will be having another attempt at growing from spores and learning how ferns propagate.



The American Fern Society (AFS)

The American Fern Society is over 120 years old. With over 900 members worldwide, it is one of the largest international fern clubs in the world. It was established in 1893 with the objective of fostering interest in ferns and fern allies. It exchanges information and specimens between members via their publications and spore exchange.

AFS non-professional membership (\$20) includes access to the Spore Exchange and subscription to the Fiddlehead Forum.

Professional membership (\$40) includes the benefits above plus access to the American Fern Journal.

Please note that donations to the AFS are not tax deductible.

To find out more about the Society and/or join, visit <https://www.amerfernsoc.org/>



Fern of the Month:

Microgramma heterophylla

This tiny fern grows on long rhizomes and spreads rather quickly. It is often grown as a terrarium plant because of its small size, and it will crawl up and over anything that has some texture that you put in there for height. That is not the only way to grow this easy fern. If you are growing a tree fern you can plant it either on the trunk or in the soil and let it climb up the trunk.

I like growing it in several different ways, but it does not need to be in a close terrarium, in our area with the humidity it grows fine with normal watering. Wire containers, tree fern baskets or plaques, cork, with sphagnum moss, to help retain the moisture when you water, because its root system and rhizomes are very small.

This is an adorable little fern and can be grown indoors with just a small amount of effort. It is not cold hardy so would need brought in for a freeze.

Darla





Daniel Flores Soto won the July Door Prize!



The July Meeting

July 18, 2024

Texas Gulf Coast Fern Society

The meeting was held at 2:00pm at the Justin Robinson Community Center in Hermann Park.

The meeting was called to order at approximately 2 pm by Darla Harris. Approximately 19 members were present.

The “Go to Meeting” was streamed to members who could not make it to the in-person meeting.

Darla announced that Chris Goodgame has graciously accepted the responsibility as the new editor of the TGCFS newsletter.

Fern of the Month:

Elaphoglossum metallicum

Elaphoglossum is a group of ferns that are endemic to Central and South America. They are a tropical, epiphytic species that like temperature range between 55F-90F. *E. metallicum* is the easiest of the *Elaphoglossums* to grow. It has metallic blue color on new growth. Height: 18”. It prefers low light and is a slow grower so it can be grown as a house plant. Darla uses sphagnum moss for the substrate, but orchid bark or even a tree fern fiber could be used. It prefers moderate, but regular water. Darla did note that she has killed several because it is challenging to grow but worth the effort.

Erin Mills presents a topic on Beneficial Insects and the Pests

Erin has a Bachelor of Science in Entomology from Texas A&M University and as a Board-Certified Entomologist, has dedicated most of her career to the study of insect biology, behavior, and plant-insect interactions. After 15 years as an Entomologist, Curator, and finally Director of the Cockrell Butterfly Center in the Houston Museum of Natural Science, she felt a calling towards education and joined the Houston Botanic Garden education team. As associate director of family programs, she oversees youth and adult programming, leads outreach and conservation efforts, and speaks on many insect and plant related topics. Erin is passionate about insects’ crucial role in sustaining a healthy ecosystem and encouraging gardeners not only to tolerate them in the garden, but to welcome and

celebrate their presence. Erin Mills Associate Director of Family Programs Houston Botanic Garden.

The goal of a gardener is to live a chemical-free existence. Pesticides can contaminate soil, water, turf and other vegetation. In addition to killing insects or weeds, pesticides can be toxic to a host of other organisms including birds, fish, beneficial insects and non-target plants. IPM stands for Integrated Pest Management. Another approach is I- Inspect plants daily for insect damage. P-protect plants with insect netting & mulch. M- manage pest problems before they get out of hand,

“BRIX” is the measure of dissolved sugar in a liquid solution. The higher level of BRIX, the healthier the plant. To raise BRIX levels with sugar, use organic fertilizers. Aphids cannot digest a high amount of sugar, so aphids will only attack a plant with low levels of sugar. Low sugar levels denote a poor quality of plant. Aphids are good bait for beneficial insects. Aphids suck up the plants sugar and poop it out as honeydew which causes sooty mold.

Spider mites are real spiders from the Arachnid family. Mealy bugs and scale are very similar. As they grow, they grow a white waxy coating over their bodies which make them slow moving. Scale do not move as adults. Baby scale crawl. Males have wings and females drop their legs and adhere its body to the plant. Softer scale attacks herbaceous plants. Armor scale attack wood plants.

True bugs like Stink bugs can be present even on healthy plants. Damage can appear as superficial deformities to fruit and leaves. Caterpillars have chewing mouth parts and constantly feed on the plant. They can attack even healthy plants. Caterpillars touch plants with their feet to determine sugar content of the leaf. Beetles have chewing mouth parts. Beetles are the largest and most diverse group of insects. Grasshoppers have chewing mouthparts and are typically solitary. These insects will only become pests if other food sources are scarce.

To attract beneficial insects to your garden, there needs to be a lot of pests like aphids. If the insect does not see a lot of aphids to feed their offspring, then they will not settle there. Beneficial insects find prey by using olfactory and visual cues. Beneficial insects need an

eco-system with a diversity of different plants and textures.

Baby Ladybugs feed on aphids; the larvae look like alligators. Adult Ladybugs digest nectar and pollen. Ms. Mills encourages everyone NOT to purchase ladybugs from garden centers. The ladybugs are essentially kidnapped from their home in California and Colorado. They do not belong here in our area. She finds it unethical. There is a Ladybug species that was introduced from Australia. They feed on mealybugs, aphids, and other soft bodied pests. The larvae mimic mealybugs.

Syrphid Flies are predatory as larvae. They feed on aphids, young cabbage worms, thrips, mealybugs, scales and other caterpillars. Adults feed mainly on nectar. They look like bees but have big eyes and no hair. Wasps are the best pest control. There are two varieties: predatory or parasitoid. Parasitoid kill their hosts by laying eggs inside other insects like aphids and tomato hornworms. Solitary wasps like Mud Daubers are single mothers taking care of their young. For nearly every type of insect, there is a wasp that will prey upon or parasitize it. Adults need shallow nectaries. Assassin Bugs are predatory for their entire life. They are solitary their entire life because they will eat bigger bugs like bees or even their siblings. The adults also enjoy nectar. Dragonflies and Damselflies are the best mosquito control. As larvae, they eat mosquito larvae & as adults they eat adult mosquitoes and other insects. They do not rely on nectar but benefit from diverse plantings for shelter, perching & hunting. Tachinid Flies parasitize many caterpillars and other insect larvae. Adults rely on pollen and nectar. Spiders eat all the insects. They rely on a diverse environment with complex plant structures.

Treatment options include neem oil treatment and insecticidal soap. Neem oil treatment is only used when temperatures are under 80 degrees. Apply weekly for several weeks until infestation is under control. Use Castile soap not liquid detergent. Liquid detergent can hurt the plant's waxy coating. Mix 1 teaspoon to 3 tablespoons of castile soap per 1 gallon of water and spray on foliage until infestation is under control.

Biological control methods include BT will kill caterpillars, mosquitoes or fungus gnats. Beneficial nematodes are most effective for soil dwelling larvae or pupal stages of the beetle, fly, or moth larvae.

Diatomaceous earth can kill soft bodied insects as well as snails and slugs. Only works if kept dry. Do not apply on rainy days.

Some plants can allure beneficial insects to your garden like carrots, dills, fennels, & Queen Annes's Lace. The Aster family is the #1 attractor of native bees. The cabbage family also attract beneficial insects.

Leave your garden intact over the winter. Native bees could be nesting in plant debris over the winter. 70% of native bees nest in the soil. Cavity-nesting bees take up the other 30%. It would be beneficial if you could create a rock wall with spaces for them to nest.

Q & A

Question: What fertilizer can you use to increase the BRIX number?

Answer: Synthetic fertilizers do not help your soil. Organic fertilizers feed microbes in the soil. Dried Molasses increases sugar levels. A weekly treatment of molasses, seaweed, and fish emulsion would increase the BRIX number. High nitrogen fertilizers can stress a plant. Because it takes a lot of sugar to process the nitrogen.

Question: Carnivorous plants eat of a lot of insects, are they considered beneficial?

Answer: Carnivorous plants are found in poor soil condition, so the BRIX connection does not exist.

Respectfully submitted by Ceil Dow.



July 21, 2024

TGCFs Board Meeting

The meeting was brought to order at approximately 4:00pm.

President: Darla Harris, Vice President: Patrick Hudnall, Secretary: Ceil Dow, Treasurer: Larry Rucker, Board Members-at-Large: Darla Harris was a proxy for Ruby Adams, Library: Fred & Betsy Robinson and Membership Chair: Christopher Goodgame, were present.

Issue: Budget

Last April, the board talked about allocating \$1500 to pay for speaker fees, special projects and video conferencing software fees.

Issue: Do we want to stick to “GoTo Meeting” or “Zoom”?

At the time, Zoom was getting hacked all the time. Zoom is also more expensive. Darla said the

Los Angeles Fern Society started on zoom but switched to “GoTo Meeting”. Darla noted that a ”Go To Meeting” only displays the program but no feedback from the audience. With the Zoom software, the presenter gets to see the audience’s reaction as well as the PowerPoint. Chris Goodgame says that Mike O’Neil in the Bromeliad Society works with Zoom. Chris will ask him to give Darla feedback about working with Zoom. This decision to work with either software is due in February.

Issue: Do we want to pay a \$25 donation for the door prize?

Ceil Dow motioned that the society pay Darla \$25 for the door prize raffle.

Patrick Hudnall seconded it, and it was unanimously approved.

Issue: We need a membership book update.

There are 22 new members with only their emails listed. We need photos to include them in the membership book. Patrick will help develop the booklet. Darla has a pdf on it. The membership needs the by-laws printed in it and the fern books for loan listed in it.

Would like to have the membership booklet by April 2025 which is 3 weeks after dues are due.

October 11 & 12 is the Bulb Mart. The society needs a “square” app so to process membership dues at events.

The society will need volunteers to man the membership booth at the Bulb Mart. We had 200 pamphlets to give out at the last 4 events and all the pamphlets were passed out. We will need pamphlets printed before this event.

Do any of the other members have a “tech” background? We need to get Square on the TGCFS website for membership dues. Darla would like Square on the website by October. We also need to more photos and plant information on the website.

Issue: We need people for the Nominating Committee

We need to encourage people to take over some of the positions that will be vacated. To provide continuity with the IRS tax filing from year to year for our 502c3, we have decided to hire a tax accountant. This will take the burden of filing off our board treasurer which is an elected position and could change every year. The treasurer is still responsible for gathering the data to file. We want to provide an easy transition from one treasurer to the next. Ceil Dow motions for looking into hiring an accountant to prepare the TGCFS tax forms. Patrick Hudnall seconds it. Motion passes.

Members that are leaving their position must transition the new members into the position that has opened up.

Chris Goodgame wants a high-resolution camera for photos for newsletters. Cell phone photos are poor quality. Photos need to be sent in full resolution as e-mail or dop box. Darla suggests Chris create an article to discuss photo resolutions and how to send these files for the newsletter and the website.

Issue: What do we need to get the books in our library used?

Having the list of books available in the newsletter would be helpful. Darla would like a synopsis of a fern book for each newsletter. Ceil Dow volunteered to write a brief synopsis on each book in the library with a maximum of 4 paragraphs. One book per month, starting with the Platycerum book in the August newsletter.

Betsy Robinson will create a database containing name, author, date published and a synopsis with the ISBN #. Betsy can have it ready by March. Only fern books will be included. New books will be listed first. In August bring 2 books for people to check out.

Issue: Banking

There is \$14,685 in the bank account. We should consider donating funds to disadvantaged students studying ferns. Either by helping with books, classes or field trips. A \$500 scholarship sounds reasonable.

The meeting was adjourned at approximately 5:00pm.

