# HOTWGPS Newsletter 



January 2018

January Meeting

Our January meeting will be on January 16 at 6:30 PM. We will meet at the Lake Waco Wetlands 1752 Eichelberger Crossing. Bring a snack or your favorite dessert to share.


## Membership Dues

As a reminder, our 2018 membership dues are due January 1, 2018. In accordance with our Bylaws, membership becomes delinquent if dues are not paid by the last day of February. You can either bring your dues to the January meeting or mail them to HOTWGPS, P.O. Box 852, Lorena, TX 76655.

Membership levels are:
a. Individual -- $\$ 18$ per year
b. Family -- $\$ 24$ per year
c. Associate NON - Voting
membership -- $\$ 12$ per year.
d. Corporate/business -- $\$ 100$ per year.

## Pond Vac

As a reminder, this is a "Members Only" benefit. You can rent this super-duper pond cleaning machine very reasonably! John Enders is the "official pond Vac keeper". Call him 254-848-9596 or send him an email at jnenders@aol.com to schedule your time with the machine. One note of caution when using the pond Vac, watch how much water you are removing from your pond!! It works so well sucking up the yuk that one can easily forget how much water is also being removed! That is the voice of experience talking!!


Winter algae growth does have benefits. It not only helps filter the water and produce oxygen, but on warmer days offers food for your fish. Don't worry; the algae won't take over like it does in the summer. It grows, but cold temperatures aren't ideal for those explosive spring and summer outbreaks.


The following 2 articles seem to promote Pond Guy products which I have not used and cannot attest to their usefulness. I primarily use Microbe Lift products. If you

[^0]do use the Pond Guy products, please let me know for future reference.

This from the Pond Guy blog 12/30/17
ASKED BY: Bonnie of Hazelton, PA


What can I do to prevent string algae from growing in the winter?
Even in the cold of winter, string algae can grow in your water garden. All that the green nuisance needs to thrive is the right amount of nutrients and sunlight. So what can you do to prevent it? You have three options in your pond management toolbox: Seasonal Defense ${ }^{\circledR}$, barley straw extract, and a three-in-one pond tool.

## Boost Your Bacteria

First of all, you'll need to control the nutrients - or the food that the algae eat - in your pond. Because the beneficial bacteria that break down those nutrients go dormant in the winter, now's the time to add some Seasonal Defense ${ }^{\circledR}$ (as long as your pond isn't frozen over, of course). It contains bacteria that prefer cooler temperatures. They'll accelerate the decomposition of leaves, scum and sediment that feed algae, reducing its growth to a minimum.

## Add Barley Straw

If you have a small water garden, like a koi pond that's less than 10,000 gallons, The Pond Guy ${ }^{\circledR}$ Barley Extract provides an allnatural solution for maintaining clean, clear water throughout the winter. Available in bales, pellets and as an extract, it works by releasing compounds that improve water clarity, leaving you a clean and healthy pond. The extract form is easy to use: Pour directly into the water and repeat every few weeks.

## Manually Remove It

Should string algae form, you can manually remove it by wrapping it around an algae brush, like the one included in the 3 -in-1 Interchangeable Pond Tool, and yanking it out of the water. The telescoping handle will add 5 feet to your reach, allowing you to reach those hard-to-access patches of weeds.

[^1]Unfortunately, if ice is covering your pond, there's not much you can do to remove that string algae. Plan on removing it during your spring clean-out process. The sun will return soon enough!


String Algae growing on a waterfall.

## Types of Algae in a Water Garden

Algae in your water garden can be caused by an overabundance of fish waste and other organic material from leaves or previous algae blooms combined with excessive sunlight. Not only does all that green growth look unsightly, it ruins your water quality and creates a headache for you and your fish. Before you can make a plan for treating
the different types of algae, you have to know what type you are trying to destroy.

## KNOW YOUR ALGAE

Algae come in two basic forms: planktonic and filamentous.

Planktonic algae is the floating microscopic vegetation that is the source of the pea soup type of blooms that color your pond shades of green, blue-green, brown, or variations in between. In controlled amounts, this type of algae in your water garden can beneficial as it is the start of the pond food chain. This type of tiny algae feeds fish and help to shade the pond's bottom - helping to prevent subsurface nuisance plants from growing. In uncontrolled amounts however, planktonic algae can deplete the dissolved oxygen into the pond leading to a fish kill.

Filamentous (string) algae are comprised of single cell plants that form long, visible chains, threads, or filaments. These threads start growing along the bottom of the pond in shallower water, on rocks, or other aquatic plants and intertwine to form mats that resemble wet wool. When these mats rise to the surface, they are commonly referred to as pond scum. These mats make great homes for micro- and macro-

January 2018
invertebrates, like bugs and worms, but they are also unsightly.

## AN OUNCE OF PREVENTION

Algae growth in a water garden is a combination of many factors, and sometimes conditions become right (or rather wrong) and different types of algae grow even in the cleanest water gardens. But there is hope. Proactively managing your pond will reduce the frequency and severity of algae blooms while providing a healthy ecosystem for your fish, plants, and other pond life.

Number of Fish and Feeding - Fish are a great addition to any pond, but over time your finned friends will grow and may even reproduce. If your pond is already at capacity, this can cause things to get a bit crowded and dirty from all the fish waste. Try to keep your fish population around 1-2 Koi or 2-3 goldfish per 200 gallons. If you have questions on your fish load, use our calculator to determine your pond's capacity. On a similar note, feed your fish only what they can consume in a few minutes once a day and give them a quality diet. The Pond Guy ${ }^{\circledR}$ Growth \& Vibrance Fish Food is a high protein food, promoting growth and reducing waste left behind by your fish.

Aquatic Plants - Similar to algae, plants use nutrients that are in the pond. Covering $40-60 \%$ of your pond with plants not only means there will be fewer nutrients available for different types of algae to use, but they will also shade your pond - this is especially important if your pond is in direct sunlight. Just keep in mind that when the plants die back to remove them so they do not decompose and become muck.

Filtration - Filtering your water keeps it clean, healthy, and safe for all your aquatic friends. Ponds with heavy fish loads or debris need more filtration than the average pond. If you do not think that your current filter meets the current needs of your pond, it is time to consider looking into a new unit. For tips, please see our article: I want to upgrade my filtration system. What are my options?

Aeration - Fish need oxygen, but a waterfall or fountain may not be enough to keep your pond healthy. Using an aeration kit will infuse oxygen into the pond and are less costly to operate than pumps. Aeration will also help to make the beneficial bacteria in your pond more active so they can do their job more effectively.

[^2]
# HOTWGPS Newsletter 



January 2018

Beneficial Bacteria - Using natural treatments will aid in keeping your pond balanced and healthy. The Pond Guy ${ }^{\circledR}$ Nature's Defense ${ }^{\circledR}$ and Muck Defense ${ }^{\circledR}$ feature beneficial bacteria that consume the excess nutrients and convert them into a harmless gas.


Texas Invasives.org IWIRE December 2017

## Invasive Spotlight: <br> Cactus Moth <br> (Cactoblastis cactorum)

The cactus moth, Cactoblastis cactorum, is a considerable threat to the native Opuntia cactus population and the ecosystem it supports. The larvae of the cactus moth live and feed communally inside the pads of any species of prickly pear cacti, which eventually kills the plant if the infestation is high enough. The cactus moth, a native of South America, is so efficient at eliminating Opuntia cacti that it is used as a biological control agent in areas where Opuntia are invasive. It has the potential to destroy Opuntia communities from Texas down through Mexico.

Cactus moth larvae are pink-cream colored at first and as they age they become bright orange-red with large dark spots forming transverse bands. Mature larvae are 25 to 30 mm long. The larvae are much easier to discern than the non-descript adults, which are gray-brown moths with faint dark spots and wavy transverse lines marking the wings and long antennae and legs. The wingspan of the adults ranges from 22 to 35 mm . Females lay on average 70-90 eggs in a distinctive stick-like formation that extends out from the cactus pad.

Damage to cactus pads by feeding can be identified by characteristic oozing of internal plant juices and insect droppings. The interior of the pads may be entirely eaten, resulting in a translucent pad.

The cactus moth has not been reported in Texas, but experts predict that its spread to Texas is not far off. It is established in Florida and South Carolina and has been reported in Alabama, Mississippi and Louisiana. Because of its potential for ecological and agricultural harm, stakeholders have formed an inter-agency partnership to monitor its distribution, the Cactus Moth Detection and Monitoring Network. It is also one of the "Dirty Dozen" pest species identified by the Texas Invasive

[^3]
## HOTWGPS Newsletter



January 2018

Plant and Pest Council. Therefore, it is one of the "Report It!" alert species on the Texasinvasives.org website and reporting app. If you believe you have found a cactus moth, please report this species. Follow this link for more information on the cactus moth.


Photo credits: (top) Susan Ellis, USDA APHIS PPQ, Bugwood.org; (mid) Jeffrey W. Lotz, Florida Department of Agriculture and Consumer Services, Bugwood.org; (bottom) CMDMN


Left: Frass and oozing. (http://www.arc.agric.za/arcppri/Fact\ Sheets\ Library/Cactoblastis\  cactorum, \%20cactus\%20moth.pdf) Right: Translucence (LSU AgCenter)


DISCLAIMER: While the information contained in this newsletter was carefully collected and compiled to be as accurate as possible, there are no expressed or implied warranties that the information contained herein, including paid advertisements, is correct, of any value, or suitable for any purpose. If you use this information in any way, you assume full responsibility for the results of your actions. In no event will the author or others be liable for any results or the lack thereof

## HOTWGPS Newsletter

Volume 10 Issue 1


January 2018


DISCLAIMER: While the information contained in this newsletter was carefully collected and compiled to be as accurate as possible, there are no expressed or implied warranties that the information contained herein, including paid advertisements, is correct, of any value, or suitable for any purpose. If you use this information in any way, you assume full responsibility for the results of your actions. In no event will the author or others be liable for any results or the lack thereof

## HOTWGPS Newsletter

Volume 10 Issue 1


January 2018


1521 N. 15th st
Waco, Texas 76707
Tues.-Fri. 10-6
Saturday 10-5
Sunday 1-5
Aquariums Supplies Service Wide selection of Freshwater
\& Saltwater Fish \& Corals
NorthWacoTropicalFish.com

Phone (254) 754-2718

DISCLAIMER: While the information contained in this newsletter was carefully collected and compiled to be as accurate as possible, there are no expressed or implied warranties that the information contained herein, including paid advertisements, is correct, of any value, or suitable for any purpose. If you use this information in any way, you assume full responsibility for the results of your actions. In no event will the author or others be liable for any results or the lack thereof


[^0]:    DISCLAIMER: While the information contained in this newsletter was carefully collected and compiled to be as accurate as possible, there are no expressed or implied warranties that the information contained herein, including paid advertisements, is correct, of any value, or suitable for any purpose. If you use this information in any way, you assume full responsibility for the results of your actions. In no event will the author or others be liable for any results or the lack thereof

[^1]:    DISCLAIMER: While the information contained in this newsletter was carefully collected and compiled to be as accurate as possible, there are no expressed or implied warranties that the information contained herein, including paid advertisements, is correct, of any value, or suitable for any purpose. If you use this information in any way, you assume full responsibility for the results of your actions. In no event will the author or others be liable for any results or the lack thereof

[^2]:    DISCLAIMER: While the information contained in this newsletter was carefully collected and compiled to be as accurate as possible, there are no expressed or implied warranties that the information contained herein, including paid advertisements, is correct, of any value, or suitable for any purpose. If you use this information in any way, you assume full responsibility for the results of your actions. In no event will the author or others be liable for any results or the lack thereof

[^3]:    DISCLAIMER: While the information contained in this newsletter was carefully collected and compiled to be as accurate as possible, there are no expressed or implied warranties that the information contained herein, including paid advertisements, is correct, of any value, or suitable for any purpose. If you use this information in any way, you assume full responsibility for the results of your actions. In no event will the author or others be liable for any results or the lack thereof

