May 2017

Pond Happenings

Monthly Newsletter Published by the
Greater Phoenix Pond Society

NO MEETING IN MAY! Next Meeting will be June 10th.

Join us for the 21st Annual Pond Tour on May 13th!

If you are not on the pond tour, please consider doing the tour to see the wide variety of ponds, support our group and encourage the members who have opened their yards for the event.

Special thanks to Annie Foster GPPS Treasurer & Master Gardener (completing very soon) for her presentation & handouts on separating water lilies!

From the Editor:

Thanks to all who took the time to answer our poll question this month! How do you battle algae in your water garden, especially in the brutal Arizona summer?

Several people gave the same answer: an ultraviolet light. One member added that there is a point when she just has to live with it. In reality, this is a great point since many of us have a serious problem with an inability to see our fish. I'm guilty of OVER cleaning my pond so that I can see my fish… only to upset the ecosystem and ultimately killed my fish. There are times when it's better to live with a little algae and let the pond work through it. Other responses included keeping a lot of plants and shade in and around the pond, 60-70% of surface covered spring and summer so less sunlight penetrates. A couple of suggestions for products that can help were to keep barley straw in a bag made from old stocking at bottom year round (so some of it is always rotting and giving off the enzymes that seem to stop or control algae, especially string algae) and S.A.B. Stream and Pond Clean from Aquascape (SAB-string algae buster) helps quite a bit too.

Since my pond is in full sun, I constantly fight algae during the Spring… and the Summer… and most of the Fall. Winter is nice, big fan of Winter, I just wished it lasted longer than 2½ weeks in Arizona!! So in order to deal with reality as I know it, I'll be adding bog for additional filtration, construction will start soon and I'll be posting my progress in my articles. Stay tuned…..

In the meantime, here's a helpful article from Tetra Pond:

How To Control Algae And Green Water In Your Pond

Algae—it's the number one complaint of pond keepers. This ubiquitous, unwelcome plant life in all its green glory is the bane of the pond keeper's existence and can make the simple pleasures of pond and fish keeping seem like chores. In addition to other non-life-threatening challenges, algae obscure colorful fish and deplete valuable oxygen. The good news is, with a few simple steps, you can stop seeing green and start seeing the beautiful, unobstructed tranquility of your water garden.

First, understand it.

Algae are primitive plants that, via photosynthesis, combine water and carbon dioxide to form sugars for energy and growth. Algae produce oxygen, a useful by-product, but when sunlight is not available at night, they quickly respire. This respiration uses the stored sugars and oxygen to form carbon dioxide, which depletes the oxygen in the pond. There are basically two types of pond algae:

1. **Green Water:** These single-celled organisms—which remain suspended in water—are so tiny, they pass through even the finest filter. If conditions are right, meaning there's plenty of nutrients and sunlight, as many as five million algae cells per milliliter of pond water can be present.
2. **String Algae (also known as "hair algae"):** This filamentous species, which grows in long strands, adheres to rocks and waterfalls. They eventually tangle together, forming thick, unsightly mats that can double their weight within 24 hours.

Then, eliminate it.

The following are some tried-and-true methods that will not only help you treat algae, but also help prevent it.

1. **Add Plants**

In a natural setting, fish produce nutrients that are absorbed by plants, leaving very little for algae. However, many garden ponds do not possess enough plants to handle all the nutrients produced by the fish. This causes an excess buildup and produces an ideal environment for rapid algae growth.

Whether you're just beginning and want to avoid algae problems or have an existing problem to control, you'll first want to increase the number of oxygenating plants on the surface of the pond. This is perhaps the simplest, long-term solution to keeping water clean and clear.

Floating plants, such as lilies and lotus, provide shade and reduce direct sunlight in the pond to control the growth of algae. Add submerged plants that release oxygen to the water, such as anacharis, hornwort and parrot's feather. As a guide, one bunch of six to seven strands of oxygenating plant can be added to every two square feet of water surface, and submerged by tying to a rock or planting in a soil container.

All aquatic plants also absorb nutrients and starve the algae. After initial plant introduction, green water may occur, but will last only a short time. Established marginal plants can be planted around the periphery of the pond or in shallow sections of the pond. These are also effective in absorbing nutrients and providing shade.

One popular way to introduce plant life into the pond system without putting plants into the main pond is to construct a plant filter. A plant filter is a simple channel or small filtration pond through which water from the pond is fed at a relatively slow rate. Fast-growing plants (efficient nutrient removers) are grown within this small pond in planting baskets or are free-floating, such as water lettuce or water hyacinth. The plant filter should ideally be lined with about 2" of pea gravel, which is the best substrate to root the plants. The pea gravel catches debris and acts as a bed for beneficial bacteria. As these plants grow, they absorb nutrients from the water and "out-compete" algae to control its growth. Generally, the plant filter needs to be stocked with plants equaling approximately one-fifth the surface area of the main pond.

2. **Water Treatments**

Water treatments are an excellent option where algae problems already exist. Green water and string algae can be controlled using repeated applications of an effective water treatment, such as AlgaeControl™ from TetraPond. Reapplication is necessary for maximum effectiveness, but be sure to follow dosage instructions.

3. **Fish Feeding**

Using a high-quality fish food will also help discourage the growth of algae, as the food will be fully digested, leaving fewer nutrients to pass through the fish.

4. **Green Water Control: Ultraviolet (UV) Clarifiers**

UV clarifiers combat green water by exposing suspended single-celled algae to very high levels of ultra violet light, which destroys its reproductive ability. UV clarifier units consist of a tubular fluorescent bulb that emits UV light. Because UV light is harmful to the human eye, the bulb is enclosed in dark, opaque housing. Here's how they work: Pond water enters through the clarifier's inlet tube and travels around the UV light. The UV light kills the suspended algae, causing them to clump together into particles large enough to be removed by filtration, and then exits the clarifier. Finally, impurities are removed from the water as it passes through a mechanical and/or a biological filter, exiting back into the pond.

5. **String Algae Control: Garden Hose, Hand, or Net**

Since UV clarifiers are ineffective against string algae, pond keepers either use a garden hose to blast it off rocks and waterfalls, or remove it by hand or net.

When it comes to controlling algae, balance is best.

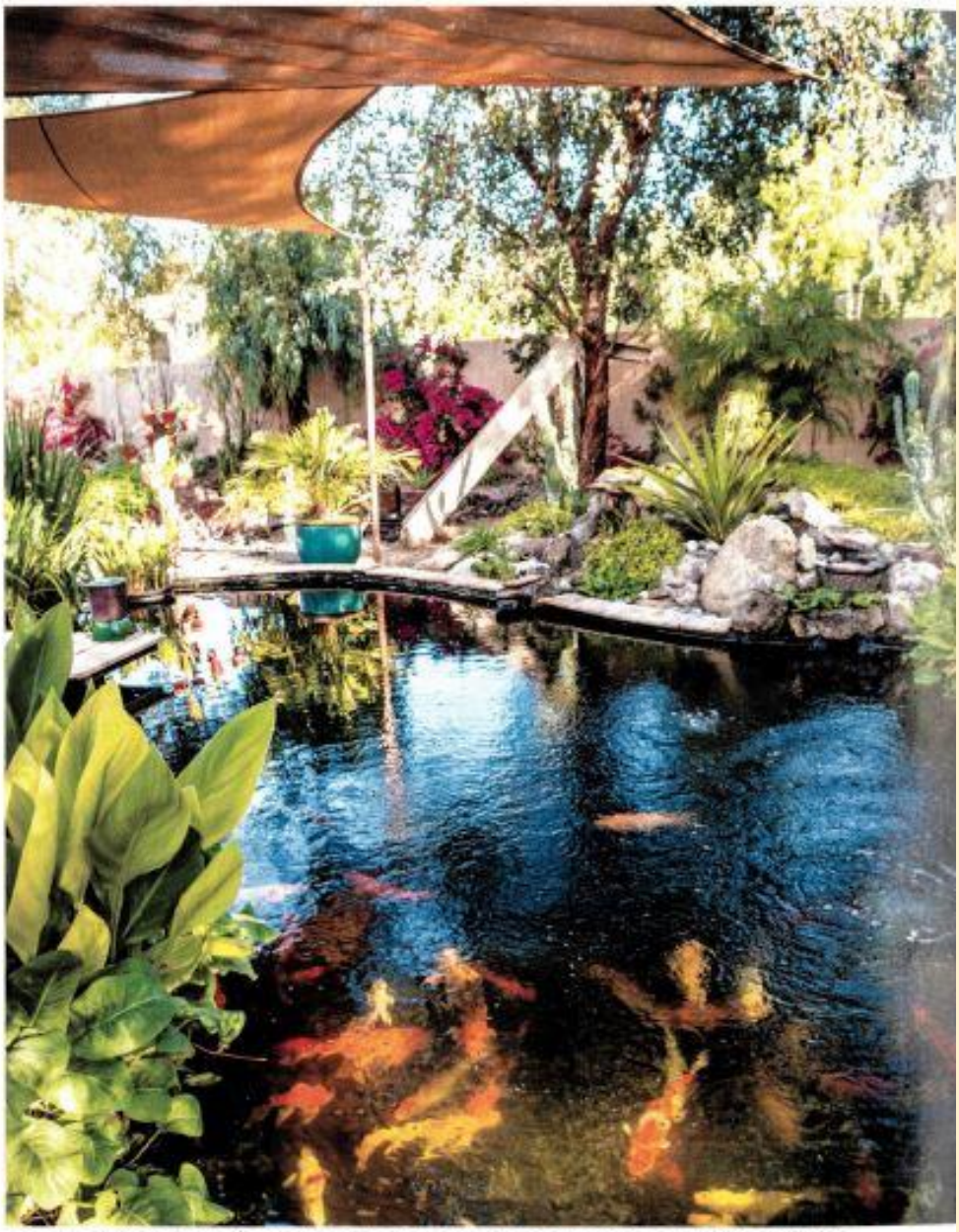
No pond is ever totally free of algae, but in a balanced environment, algae can be kept in check. Understanding how it grows is a good start, followed by an appropriate treatment for the type of algae present. UV clarifiers, water treatments, and other algae eliminators are effective methods for treating and preventing algae proliferation. But don't ignore Mother Nature; the addition of plants should be part of the long-term solution.

Source: http://www.tetra-fish.com/Pond/pond-information-center/how-to-control-green-pond-algae-in-pond-water.aspx

Build a Better Pond

What to know before you break ground

BY **CATHY BABCOCK**



Fish can bring visual interest and movement to a backyard pond. While koi are a popular choice, goldfish are an equally colorful and less-expensive alternative.

Water holds a great attraction for most Arizonans. A properly constructed water garden can provide a beautiful focal point and a soothing place to relax. As with any DIY project, planning is the key to success.

BEFORE YOU START

Contact Blue Stake (azbluestake.com), a damage-prevention service that will mark all underground utilities free of charge. Also, check with your homeowners association and the city in which you reside for any required permits or fences. You'll also need an area to stage your materials and put the excess soil from digging.

LOCATION

If you want plants in your pond, six hours of sun in the morning is best for those that bloom. For Arizona, afternoon shade is practically mandatory. Avoid areas with mature plants that may have big root systems and seasonal leaf drop. Don't build in low-lying areas of the yard, and avoid your roof's drip line. All parts of the pond should be easily reachable without having to get into the water. Situate near a grounded exterior outlet for the equipment.

SIZE AND DEPTH

Consider your budget and available space. Sylvia DeVisme, owner of The Lily Pond, believes in going as big as possible. "What starts out looking like the Grand Canyon turns into the incredible shrinking hole as you add the liner, equipment, plants and fish," she says.

When digging in hard clay soil, alternately wet the area and then loosen with a digging bar. For caliche, rent a jackhammer. A 4-foot by 6-foot pond will support one water lily, a few grasses and three to four goldfish. Vertical sides will help keep cats and raccoons out.

POND DESIGN

Be creative. A below-ground pond can be designed in any shape and then lined with an EPDM (ethylene propylene diene monomer) liner, which must be cut to size. Be sure the liner you buy is fish-safe if that will be a factor.

EQUIPMENT

Ponds require a pump to circulate water, and a filter and aerator to control algae. The size of each will be determined by

the size of your pond. Equipment should be able to cycle all the water at least every hour. Many gardeners use a float to automatically fill the pond, but some water must be removed on a regular basis to avoid salt and mineral accumulation. Purchase liners and other equipment only from a pond supplier.

PLANTS

Plants should cover at least 60 percent of the water surface in the summer to keep water cool and subdue algae. Hardy perennial water lilies (*Nymphaea* spp.) do best in Arizona and go dormant in the winter. Water lettuce (*Pistia stratiotes*) is a good surface floater. Bog plants, such as Yerba Mansa (*Anemopsis californica*) and Umbrella Plant (*Cyperus alternifolius*), can be added in and around the edge of your water feature.

FISH

Fish need a pond depth of at least 2 to 3 feet to have room to swim. Koi should not be kept in a pond that is less than 3 feet deep. That little thumb-sized baby will become the equivalent of a Great Dane in a small pond. Goldfish are an alternative. Do not add aquarium fish. Once your pond is established, fish don't need to be fed, but most people provide them with food to entice them to the surface.

MAINTENANCE

No pond is maintenance-free. Filters must be changed or cleaned. Algae and debris must be removed. Plants may die and need replacing. Equipment requires upkeep to function properly.

Another key for Arizona ponds is water movement, which can be created by such features as a waterfall. Not only visually attractive, they also provide aeration and give fish the oxygen they need.

While a pond can be a commitment of time and maintenance, it can also be a source of enjoyment year-round. For an invaluable resource, The Greater Phoenix Pond Society (phoenixponds.com), offers education, links, advice and annual tours of Valley pond residences.

Cathy Babcock is the director of horticulture for Boyce Thompson Arboretum, located in Superior.

ASK THE EXPERTS

BY **KELLY YOUNG**

Q We live in a townhome with a south-facing patio. Can you recommend a vine that will provide shade in summer and allow the sun to warm us in winter—and won't damage the stucco on our home?

A Queen's wreath (*Antigonon leptopus*) is a fast-growing vine with heart-shaped leaves that blooms in late summer and early fall in shades of pink, red or white. Plant it in full sun and give it a trellis for support, since it can't grip walls—and won't ruin your stucco—like some other vines will. Native to Mexico, queen's wreath is semitropical, meaning it loves the heat of summer but is also frost-sensitive. Its foliage will generally die during the winter, even in the low desert. Cut this vigorous vine back in December, and the new growth will start when temperatures warm up in the early spring. This beauty will give you the shady coverage you want during hot weather and, with a little work, will allow you to bask in the welcome winter sun.

Q I just noticed that my snapdragons are covered in brownish-red spots. When I touch the leaves, my fingers become stained with the same color. What could be causing this?

A It sounds like your snapdragons are infected with a rust disease, which are fungal diseases that cause blisterlike spots on leaves and stems of a wide variety of plants. Although not very common in Arizona, snapdragons are susceptible to a rust disease caused by the fungus *Puccinia antirrhini*. Unfortunately, once your plants are infected, the only treatment is to pull them out and dispose of them. You may want to avoid using snapdragons in that bed for a year or two, to starve the fungus out. Or, chat with your nursery professionals to find a snapdragon variety that is resistant to rust disease.

Q I have a small greenhouse in Tucson in which I grow tomatoes. Lately, whiteflies have been a problem. I've seen recipes online for homemade organic insect sprays. Can I really use regular dish soap to kill these troublesome pests?

A According to Peter Warren, entomologist and extension agent at the University of Arizona Cooperative Extension in Pima County, "Soaps are made of fatty acids. Some types of fatty acids are toxic to insects, while others are toxic to plants. It's important to make sure that you don't use something that is harmful to your plants." I recommend that you purchase an insecticidal soap that is specifically formulated to kill insects and is also safe to use on plants.

Queen's wreath

2017 GPPS Meetings & Events

January 14th: Meeting – 9am Host: Tammy Purtell	**February** 11th: Meeting - 9am Hosts: Don & Dawn Jarratt 10th-12th: Chinese Cultural Fair	**March** 11th: Meeting - 9am Japanese Friendship Garden
April 8th: Meeting - 9am Hosts: Annie Foster & Mike Galeski	**May** NO MEETING 13th GPPS Pond Tour 9am-4pm	**June** 10th: Meeting - 9am Hosts: Jeff & Rita Karsten
July NO MEETING	**August** NO MEETING	**September** 9th: Meeting – 9am Hosts: Chuck & Joy Basso
October 14th: Meeting - 9am Hosts: Tanya & Ian Brown	**November** 11th: Meeting - 9am Hosts: Ron & Penny Christensen BOD Election	**December** 9th: Meeting - 11am Hosts: Richard & Pet Smith Holiday Potluck White Elephant Gift Exchange Fantastic Food & Fun

Member Corner

Ron and Penny Christensen

Location: Tempe

Family: We have 3 adult children and 3 grandkids. Our family at home now is Ron, myself and our two fur babies Molly and Max.

Profession: Ron works for Southwest Products as a QC inspector / driver. Penny works for Sonora Quest Labs as a phlebotomist.

Hobbies: Ron is into aquariums he has a 125 gal and a 45 gal. We both enjoy gardening, biking, arena football, we have season tickets for the Rattlers and of course our pond (which we are rebuilding because a root decided to poke a hole through the liner) We originally built our small pond 17 years ago with a preformed liner. This time we will be cementing it in, hopefully keeping the roots away!

What you got involved with water gardening: Ron has always enjoyed fish aquariums and our love of gardening is what got us involved with water gardening.

What is your favorite part of water gardening: Our favorite part of our pond is how relaxing it is to just sit and listen to the waterfall and watch the fish.

Future water gardening plans: We do have future plans of building a larger pond which will connect to our smaller pond with a bridge.

Your 2017 Board

GPPS Executive Committee			
President	Don Shaw	602-332-8112	president@phoenixponds.com
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Do you have your embroidered GPPS shirt yet? You can have your shirt embroidered with the society logo for $10 or $20 including a polo shirt. Contact Tanya at tanyam6@cox.net for more information or to place an order.

Treasurers Report

Starting Balance	$3404.45
Income	
Dues	$200.00
Expenses	
Books for Library & Raffle Prize	$20.60
Ending Balance	$3583.85

Sale, Trade, or Free

If you would like to advertise an item or service in the newsletter, send your submission to: newsltr@phoenixponds.com

Have a tip, trick, recommendation or idea? Send it newsltr@phoenixponds.com

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If anyone finds a broken link or out of date information on the web pages, please send information like the page name and what needs to be changed or fixed to webmaster@phoenixponds.com

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WEB 101:

If a member wishes to view archived Club Newsletters they must use the URL below. That URL is not a link from any of our pages. There is no need for a password.

You can make it a bookmarked or favorite in your browser. I suggest that you highlight and copy the below URL. If you wish to type it in your browser's address window NOTE: there is an Underscore (_) between the gppsarchive and the .htm

-- Failure to type the underscore will result in an error message.

http://www.phoenixponds.com/News/gppsarchive_.htm

GPPS Newsletter

Monthly Submission Deadline: 18th of each month. Newsletters will be sent out the 28th of each month. All submissions are subject to review and all materials become the property of GPPS. Due to space and timing, it is not guaranteed that all submissions will be printed. Submissions can be emailed to newsltr@phoenixponds.com