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Pond & Garden





April 2024

Hello fellow ponders and gardeners!

Spring is here (with the occasional cool-weather reminders that summer is not), and with that comes another season for our Utah Pond & Garden Club. We look forward to seeing you at our **first meeting of the year on April 25** at Red Butte Garden. Red Butte is located in Salt Lake City at 300 Wakara Way. Rosie Cobbley will be available to lead tours of the Garden's delightful daffodils at 6:00 pm. The meeting will begin at 7:00 pm, and will include a presentation by our club president Julie Matis Flint on growing water lilies. We'll have pies for all. Please come!

Our May meeting will be on **Wednesday, the 22nd**, at Jordan Valley Water Conservancy District's Water Conservation Garden Park, 8275 South 1300 West in West Jordan. The meeting will begin at 7:00 pm with a presentation by Cindy Bee on water use and conservation. You can find a schedule of all our meetings this year on page 10.

Sadly, Judy Larson (wife of Bob Larson) passed away last week. Judy and Bob have been great supporters of our club, and we will miss her. Our condolences to Bob.

Read on to find articles on pond snails, marsh marigolds, and pond algae. And enjoy the spring flowers, blooming trees, and warmer weather!

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Pond Snails – Good, Bad or Just Inevitable?

If you have a decorative pond, you've likely come across some resident snails and are wondering whether or not to keep them around. Before we delve into the specifics of these slimy little critters, let's start with a bit of basic background. Pond snails are members of the gastropod family, along with mollusks, slugs, and approximately 60,000 other species. Oftentimes, they are introduced accidentally into ponds by discretely hitching a ride on aquatic plants, or will move in of their own accord from any nearby water systems such as rivers or wetlands. On occasion, they'll hitchhike on the backs of turtles that have been sedentary for a while (or unintentionally on your dog or cat as they brush against a plant with snails or eggs on it, transferring to your pond if they find it suitable. Who would have guessed that snails are so sneaky!

Much like amphibians, snails meet a portion of their oxygen needs by essentially breathing through their skin, though some species also have gills (yes, snails can have gills!) while others have a single, tiny lunglike organ and need to periodically surface to breath. They'll also consume softer nuisance algae before they eat most plant foliage, so they're useful for keeping algae in-check and will only go for plants if there is little else to eat. However, if you have only a lightly planted pond or little algae, you will need to keep snail reproduction in-check, as they'll eventually grow too large in numbers for plants to recover after foliage is eaten.

While some species are considered more desirable than others, in general, pond snails can play an important role in your pond's ecosystem by grazing on algae. They also aid in nutrient cycling by feeding on detritus (dead particulate organic matter) and releasing nitrogen from sediment. Snails can warn you if your pond isn't healthy. If snails are suddenly coming to the surface of your pond, the water quality is likely poor.

Most pond snails do consume algae – however, many of them prefer the healthy, soft green algae that's easier to scrape off rather than harmful blue-green algae, or cyanobacteria. In addition, most snails are hermaphrodites and reproduce quickly. If your pond

Depending on the species, freshwater snails consume algae, leafy vegetation, dead fish and snails, and certain vegetables and fruits like carrots and apples. If you have a heavily planted pond, there should not be any major damage to plants.



Black Japanese Trapdoor Snails

becomes overpopulated with snails, they may eat your pond plants and kill them over time, particularly if there are not enough algae. One way to mitigate this is to provide leafy vegetables. It may be necessary to remove snails if you have too into a waterway, dispose of them in a dry bucket until professional pond and water gardeners worldwide. they have dried up, then you can put them in the garbage. On top of this, if snails are allowed to reproduce freely, they will hugely contribute to waste as they begin to die off. This can cause spikes in harmful waste substances, such as ammonia and nitrites, which are deadly to fish.

Furthermore, many wild snails are often hosts to

Japanese Trapdoor Snails are one of the few snail varieties that can over-winter well and survive in harsher northern climates. Japanese Trapdoor Snails are a great asset in helping keep algae under control in your

pond and water garden as they groom plants, planting-pots, and water garden rocks and walls.

various parasites that can pass to fish and mammals. If you decide to have snails in your ornamental pond, obtaining them from aquariums, fish farms, and breeders significantly lowers



Japanese Trapdoor Snails will tend to the bottom of the pond, consuming any decaying matter such as leaves, excess fish food, and even fish waste. **Black Japanese** Trapdoor algae eating snails are live-bearing;

rs. 42 Min

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the likelihood of them hosting parasites or viruses. Never catch snails from a natural environment and introduce them to your pond, as they can host a range of pathogens, bacteria, and nasty parasites!

In the Avellar pond, we have lots of Pond Snails that likely came in on water plants that we either purchased or were given by other pond people. Here are two pictures of one of our pond snails. Pond Snails can be identified by their large, smooth shells that are typically light brown or tan in color. They also have a long proboscis-like mouth and two small tentacles on either side of their head. The scientific name for pond snails is "Lymnaea stagnalis," which alludes to their love of stagnant and motionless environments.

Algae Eating Black Japanese Trapdoor Pond Snails are the preferred species of snail for recreational and

they only breed a couple of times a year and will not take over your pond like other nuisance egg-bearing snails can and will. In order for your algae eating snails to have a positive effect on algae growth, a minimum of 20 snails per 100 sq feet will be needed, and farm ponds will need to have at least 200 pond snails to have any positive effect at all.

So, are snails good, bad or just inevitable? The short answer is YES!

Snail Monorail Crash in...

Thanks to Gil & Sherry Avellar for this article!

SCHEEZEURGER.COM CC

Marsh Marigolds

Hey Pond Lovers,

The Marsh Marigold (Caltha palustris) is a springtime gem that deserves a spotlight for brightening the watery corners of our ponds. Often mistaken for a buttercup, this perennial beauty is a feast for the eyes and a cornerstone species in its habitat. Let's wade into the world of the Marsh Marigold, exploring its characteristics, habitat, and importance.

What is the Marsh Marigold?

The Marsh Marigold belongs to the buttercup family, Ranunculaceae, and is native to marshes, ditches, and wet woodland areas in the Northern Hemisphere. Flourishing in the early days of spring, it is one of the first pops of color in many wetlands, sporting glossy, heart-shaped leaves and bright yellow flowers from mid-April through June.

A Closer Look at Its Habitat

Thriving in moist conditions, Marsh Marigolds are not just plants but also indicators of a healthy wetland ecosystem. They prefer shallow edges of ponds, streams, and swamps, where their presence signifies clean, unpolluted water. Their lush foliage and vibrant blooms create a habitat for various aquatic life.



Growing Marsh Marigolds

For those interested in adding a touch of this wetland wonder to their garden, Marsh Marigolds are low mainte-



nance, provided they have a consistently moist environment. They are perfect for garden ponds, bog gardens, or any water-influenced landscaping. These flowers can thrive in both sun or shade and will spread, so make sure to plant them with room to grow.

Final Thoughts

The Marsh Marigold is more than just a pretty face; it's a foundational species in its ecosystem and a herald of spring. By appreciating and preserving these plants, we contribute to the health and diversity of our planet's wetlands. So, the next time you spot these golden blooms, take a moment to appreciate the vital role they play in our natural world.

We hope this glimpse into the life of the Marsh Marigold inspires you to explore and protect the natural wonders around us.

Until our next nature adventure, keep your hearts open and bright as a Marsh Marigold bloom!

Adapted from Pondandgardendepot.com

Identifying Common Types of Pond Algae

This article will be your guide for identifying the good, the bad, and the ugly algae you may encounter.

If you already know what type of algae problem you have, you may want to read our guide on pond algae control & removal.

Where there is water there will be algae.

As a pond owner, it is important to be able to identify the different types of algae that can grow in your pond. When you can do this, you'll be able to determine if the algae needs to be removed or if they are good for the ecosystem.

Different Types of Algae Commonly Found in Ponds

From complex macro-algae like giant sea kelp to simple single-cell planktonic algae, there are more than 150,000 known types of algae. Luckily for pond owners, only a small fraction of these different types of algae grow in ponds!

For this article we complied the most common types of algae you are likely to find in your pond (including a few non-algae frequently mistaken as algae!)

- Blue-Green Algae
- Bryozoans
- Filamentous / Hair / String Algae
- Green Pond Algae
- Golden Algae
- Red Pond Algae
- Nitella / Stoneworts
- Chara / Muskgrass
- Diatoms

The Worst Type of Algae: Blue-Green Algae



While many types of pond algae are unwanted because they look unsightly, our experts agree that Blue-Green Algae (BGA) is the worst type of algae to have in your pond because of its ability to cause Harmful Algae Blooms (HABs) & toxic algae incidents around the world.

Ironically, blue-green algae are not algae at all!

While both photosynthesize and are similar in appearance, the term blue-green algae actually refers to a class of bacteria named cyanobacteria.

So what makes this the worst kind of "algae"?

Cyanobateria produce multiple different toxins which can effect the skin, liver and nervous system, and in rare circumstances – can cause death.

In addition to their toxin producing potential, BGA can form a blanket of slime that covers the surface of your pond. If this layer of bacteria grows enough, it can completely block out sunlight from the depths of the water.

This can completely disrupt the balance of an ecosystem and lead to a crash in oxygen levels and can result in fish-loss and increased mortality rates for all critters in your pond!

Fish, waterfowl, and other algae aren't the only organisms affected by cyanobacteria.

Adults, children, and pets exposed to BGA will have irritated skin and can suffer serious negative health effects.

Not every BGA bloom is toxic, but this is one algae you do not want to mess around with so we recommend you learn how to prevent blue-green algae.

Filamentous Algae

Common Names: Carpet Algae / Hair Algae / String Algae / Spirogyra/ Water Silk

Description: Long, thin, hair-like strands of algae that can combine to form mats

Where/how it grows: Anchors to the bottom of a pond or structures like rocks or waterfalls before floating to the surface in large mats

Region/Climate: Prefers fresh, clean water and cooler temperatures

Toxic: No

Predators: Some fish, including the Siamese Algae Eater, Pond Loach, and occasionally Koi

These algae can grow quickly and impact the appearance and ecosystem of your pond. While small amounts of filamentous algae are not harmful, it is important to control string algae before it grows out-of-control.





Green Pond Algae

- Common Names: Chlamydomonas, Chlorella, Closterium
- **Description:** Free floating and microscopic, this type of algae blooms to give the water a green color, not to be confused with green water from new pond syndrome
- Where/how it grows: In the water column, on the bottom, edges, and surface of ponds, visible during blooms
- Region/Climate: Prefers warmer water
- Toxic: No
- **Predators:** Fish will not feed on this type of algae, but zooplankton and other microscopic organism will.





Golden Algae

- **Description:** Blooms will often give the water a golden color
- Where/how it grows: Appears on the surface of the water
- **Region/Climate:** Non-native, prefers temperatures between 65°F 85°, occurs primarily in coastal waters
- **Toxic:** Small amounts are not harmful; algal blooms are toxic to fish though not to animals or humans
- **Predators:** Toxic to fish



Red Pond Algae

- Background: Like Cyanobacteria, red pond algae is technically not an algae, but a protozoan named Euglena that typically appears red in color.
- Description: Euglena can be found in nearly all bodies of water and blooms are typically red in color, but may turn green
- Region/Climate: Can grow in any body of water but prefers warm waters
- Toxic: In large quantities
- Predators: Toxic to fish



Some of the same types of algae that grow in ponds will also grow in a home aquarium, and just like pond algae, not all types of aquarium algae are created equal.

Algaes Mistaken for Plants

Plants and algae are very different, but there are some algae that are great at pretending to be what they're not. Where algae are mostly unicellular, plants are multi-celled and have many different parts (stem, leaves, roots, etc).

While it is easy to mistake certain algae types for plants it does not mean that they are harmless. These algae lookalikes still need to be controlled to prevent damage to your pond.

Nitella / Stoneworts

- Description: Branched algae that appear below the surface of the water; varying shades of green; soft to the touch
- Region/Climate: Prefers warmer temperatures and acidic ponds
- Purpose: Provides a habitat for insects eaten by fish in the pond; helps to stabilize sediment at the bottom of the pond
- Beneficial or Detrimental: Beneficial in small amounts



Chara / Muskgrass

- **Description:** Plantlike algae that appear below the surface of the water; gritty feeling and musky smell
- Region/Climate: Prefers alkaline water
- **Purpose:** Provides a habitat to insects eaten by fish in the pond; helps to stabilize sediment at the bottom of the pond
- Beneficial or Detrimental: Beneficial in small amounts

Bryozoans

These organisms are mistaken as algae, but are actually a small invertebrate which live in colonies which can resemble clumps of algae. These colonies are typically 2-4 inches long and attach to surfaces like rocks and branches. Each member of the colony has microscopic tentacles they use to filter feed.

They are found worldwide in every kind of water and are non-toxic. Freshwater bryozoans are preyed on by snails, insects, and fish and are good for your pond in limited quantities.

What About Good Algae?

With an estimated 200,000 species known to exist, our favorite type of algae are Diatoms! **Diatom Algae**

- Description: These single cell organisms are one of the most common types of phytoplankton, and are found in just about every body of water – including freshwater to very salty waters — and just about every climate from the Arctic to the Equator!
- Where/how it grows: Often free-floating on the surface; they later sink to the bottom of the pond and are consumed
- Region/Climate: Most climates from cold to warm and most bodies of water – from fresh to briny
- Purpose: Nutrition for zooplankton (and thus for fish); create oxygen
- Predators: Zooplankton









What makes diatoms different?

Unlike most phytoplankton, diatoms have super special silica-based cellular structure which makes them different from all other types of algae you find in ponds.

We know what you're thinking — "silica-based" — big deal.

Actually, it is! Unlike cellulose-based algae which form a layer on top of the water that cuts off light, diatoms silica body allows them to float in the water column and then sink to the bottom where they are eaten by your pond's fishy inhabitants.

This good algae also converts nitrogen, phosphorus and carbon dioxide into oxygen-rich organic compounds that create a healthy ecosystem.

Did you know? Diatoms are responsible for producing up-to 50% of all oxygen on planet earth!

Adapted from nualgiponds.com



We need ponds for the **2024 pond tour**, and volunteers to help with meetings and other events! Please volunteer!

Call Ty Rosser about the Pond Tour at (801) 995-8521

Call Julie Matis Flint (801-274-3040) or Michael Pfafflin (801-652-0386) to get involved in meetings.

2024 Meeting Schedule

Note that we're moving some of our meetings this year to the fourth Thursday of the month

 ◆ April 25 – Red Butte Garden, 300
Wakara Way in Salt Lake City; daffodil tours at 6:00 pm and meeting at 7:00 pm with a presentation on growing water lilies

May 22 (Wednesday) – Jordan Valley
Water Conservancy District's Water
Conservation Garden Park, 8275 South
1300 West in West Jordan; meeting at
7:00 pm with a presentation by Cindy Bee
on water use and conservation

◆June 27 – Pfafflins' pond

◆July 18 – Saville's pond

♦ August 22 – Annual BBQ and Plant Exchange at the Cobbleys' pond

• September 26 – Julie Myer's pond

• October Banquet – date and location to be announced

2024 Pond Tour

We're excited for our 2024 Pond Tour, which will be on August 3rd & 4th. If you'd like your pond or water feature to be on the tour, please contact Ty Rosser at (801) 995-8521. It's lots of fun!

2024 Membership

2024 dues are \$20 per person, and are due now. You can pay your dues (and even join the club) by clicking <u>here</u>.

Get Involved!

We'd love for each of you to get move involved in the Pond Club. We *always* need more help. Opportunities are endless, and include recruiting new members, helping coordinate the Pond Tour, assisting with monthly meetings, helping with food, helping with our website and other publicity, and much more!



Who we are

The Utah Pond & Garden Club is a non-profit organization serving the greater Wasatch Front. We strive to foster an appreciation for and interest in the use of water in the landscape, through monthly meetings, educational programs, pond and garden tours, and sharing our experiences. We are a group of volunteers dedicated to gardening (and especially water gardening), pond keeping, and koi and other pond fish. Our members range from novices to professionals.

Historically, we have sponsored an annual Water Garden Tour – a self-guided tour of outstanding local ponds, water features and gardens. If you'd like to be involved in planning or have your yard in the **2024 tour**, please let us know! Pond tours can <u>only</u> happen with your participation!

Check out the club's website at <u>UtahPondClub.com</u>.

Officers

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