

July Newsletter

Hello friends!

Summer is here. We hope you're well, are enjoying your ponds and gardens, and are taking advantage of July's patriotic holidays.

Thanks to the Pfafflins for sharing their yard and pond for our June meeting. And a big thanks to Richard Gorlin, an arborist at Red Butte Garden, who shared some of his extensive knowledge and experience. We hope everyone enjoyed the pizzas as much as we did.

Our July meeting will be on the 18th at 7:00 pm at the Avellars. Their address is 626 E. Pheasant Haven Court in Draper. Our speaker will be Frank Fink with Living Artscapes. He'll discuss the design and build of an ecosystem pond. You'll find a schedule for the rest of this year's meetings on page 7.

The 2024 Pond Tour is coming right up — August 3rd & 4th. Members who have paid their 2024 dues will have free access to the tour. Tickets for nonmembers cost \$20 per carload. We have a great selection of ponds and water features that you won't want to miss. You can find more information on page 12 of this newsletter and at utahpondtour.com.

We're looking forward to our annual banquet in October. More info will be coming soon.

Happy ponding and gardening, and read on!

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Ladybugs

“Ladybug” is a curious name for our common and beloved garden visitor. The word “lady” originated during the Middle Ages in Europe. The ladybug’s healthy appetite for plant-destroying pests linked it to the beneficial Virgin Mary (Our Lady). The second half of its name is an American quirk. Ladybugs are not actually true bugs (Hemiptera); they are beetles (Coleoptera) in the family, Coccinellidae. Outside the US, they are known, more accurately, as ladybird beetles.



Not all ladybugs are red with black spots. In fact, their colors range from red to yellow to black with a variety of patterns—not surprising given almost 6000 Coccinellidae species worldwide and almost 500 species in North America. Even within some species, color patterns vary. Most ladybugs, however, are less than 10 mm long, have an oval to round shape with rounded backs and flat undersides, as well as partly hidden heads and short antennae. Like all beetles, ladybugs have two sets of wings. The outer wings (often spotted), called elytra, are hardened or leathery to protect the more delicate flight wings beneath. In Oregon and California, a common native is the convergent lady beetle (*Hippodamia convergens*).

Habitat and Distribution

Globally distributed, ladybugs occupy a variety of habitats, including forests, meadows, agricultural fields, and of course, your garden.

Behavior and Diet

Best known for eating aphids, scale insects, and mites, most but not all ladybug species are predatory, though some species supplement their diet with pollen and nectar. A few ladybug species eat plants, and one genus (*Psyllobora*) eats fungus—a welcome help for owners of vineyards afflicted with powdery mildew.

Ecology

Ladybugs fall prey to birds, small mammals, and other predatory insects, like wasps, though many ladybug species have a powerful defense. When attacked, they exude a toxic, bad tasting, yellowish alkaloid from their leg joints. The bright red coloring of many ladybugs acts as a warning to predators of this toxic defense, a trait known as aposematism.

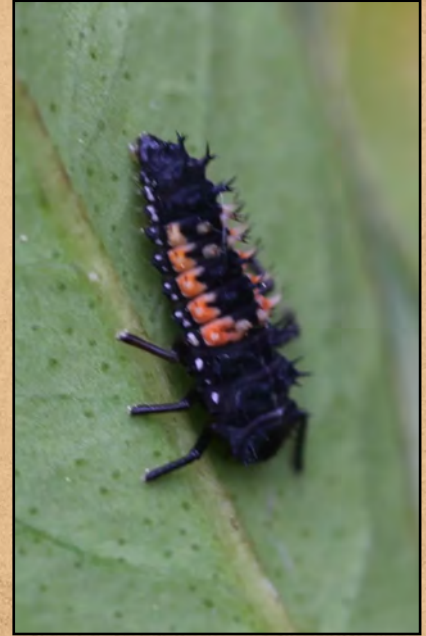
Life Cycle

Climate, species, and food availability are among the drivers of how many new generations a ladybug can produce in its lifetime. In many western US locations, convergent lady beetles emerge after a long fall and winter metabolic slow down (diapause) to mate and lay several batches of eggs in spring. The tiny (1 mm) yellow eggs are laid on the underside of vegetation, usually near a plentiful food source, like an aphid colony. In a few days, the eggs hatch into larvae that typically look like a flattened but prickly caterpillar with 6 legs and a tapered tail end. On a steady diet of aphids, the larvae grow through several sets of skin (instars), appearing dark with orange spots in the later stages.

After a few weeks, they stop moving and harden into a motionless pupa attached to vegetation, inside which their adult body develops over 3 to 12 days. This complete metamorphosis, from egg to larva to pupa to adult, is called holometabolism. After emerging as a full-grown adult, they can mate soon if conditions allow. By fall in California populations, adults typically cluster together by the thousands, likely drawn together by aggregation pheromones, to overwinter at higher elevations in a state of diapause. Convergent lady beetles don't typically live longer than a few months to a year.

Fun Facts

- Ladybugs breathe air through openings in their abdomen and thorax, called spiracles.
- Counting spots on a ladybird's back does not indicate its age, contrary to popular belief.



Ladybug larva



Ladybug Pupa

- Ladybugs are the official state insect of Delaware, Massachusetts, New Hampshire, New York, North Dakota, Ohio, and Tennessee.

Conservation

One threat to native ladybugs is competition from nonnative invasive ladybugs that have been introduced to North America for pest control. Two common nonnatives in the Pacific Northwest are the Asian spotted, or “harlequin,” ladybird beetle (*Harmonia axyridis*), and the seven-spotted lady

beetle (*Coccinella septempunctata*). Another threat is when large clusters of ladybugs are collected from winter aggregations for pest control down at lower elevations—a faulty strategy anyway since the transplanted ladybugs often fly off upon release. Better to attract ladybugs to your garden by planting their favorite daisy and umbel family flowers.

Learn More

<https://www.pacifichorticulture.org/articles/garden-allies-lady-beetles/>



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.

Scan this QR code to access our Pond Tour App, or [click here](#):



2024 Club Dues

This year a membership in our Club is \$20 per person. The money goes to pay for refreshments, as well as other Club expenses such as state filing fees. 2024 dues are now due.

Please pay as soon as you can! We take cash or you can pay with a credit card at any meeting. Or you can pay online by [clicking here](#).

Members get access to all meetings and free admission for the pond tour (a \$20 value by itself). This year, for those not wanting to commit to membership, it will cost \$5 per person to attend each meeting. This will help offset the costs of ice, drinks and refreshments.

Thank you for your help! We are proud to a vibrant and educational pace to learn about ponds and gardening, and to socialize with like-minded gardeners.

Pond Filters

Pond filters are foundational for cleaning pond water and maintaining a healthy environment for fish. Understanding types of filtration and the best filter for your pond can take some research. We interviewed our pond techs to lighten your load and provide their top tips in this post. Dive in to learn all about the wonderful world of pond filters.

Do all ponds need a filter?

Do fish ponds need filters?

Pond filters are vital for ponds with fish or other aquatic life. Plain and simple fish make ponds dirty, and you need a way to filter out the muck. Specifically, feeding fish results in fish waste and uneaten food. If left unattended fish waste is not only dirty, but also toxic.

Do ponds without fish need filters?

Pond owners without fish don't HAVE to have a pond filter, but many prefer to have one for water clarity. Filters clean out debris and help achieve that coveted clear pond water.

Types of filtration

There are three ways to filter pond water: mechanically, biologically and chemically. Mechanical and biological filtration are most common, but chemical filtration can help, too.

Mechanical Filtration

Mechanical filtration is the act of physically trapping debris. This is most commonly done with filtration pads.

When using mechanical filtration it's important to clean your pads from time to time to keep them from clogging. We suggest cleaning with your pond water (not hose water). This will sustain any beneficial bacteria that has grown in the filter. However, if you're only interested in using them as straight mechanical filtration, for example pads inside a skimmer, then cleaning with a garden hose is perfectly acceptable.

Biological Filtration

Biological filtration requires media and beneficial bacteria. Filter media is usually anything with surface area that beneficial bacteria can make their home. This includes filter pads, lava rocks, bio-balls, bio-beads and more.

Typically to get beneficial bacteria into a new pond you will need to add some. You can find a plethora of options here. Any biological filter must undergo a period of 'maturation' before it is fully efficient. During this period of time, beneficial bacteria will colonize on the filter media until the bacteria population is large enough to purify the waste in the water. The initial maturation of the filter can take up to a month. Some time and patience are naturally required for this growth to occur.

After bacteria has attached to your media, this form of filtration is very low maintenance. Since they're living organisms, you just let them do their thing. The only manual cleaning required is during winter shut down, and then again when you restart the next season.

Chemical Filtration

While not nearly as common as mechanical and biological filtration, chemical filtration has its place.

Activated carbon is one type of chemical filtration. Use this to absorb water stains from leaves or to remove chemicals. This treatment can be particularly helpful if you overdose your pond or if a neighbor does some spraying that creeps over to your pond.

To implement in your pond simply place the activated carbon in a fine mesh media bag inside a skimmer or waterfall box.

Types of Pond Filters

Different types of pond filters serve different needs and preferences. We break them down below.



A submersible in-pond filter

Submersible In-Pond Filters

Submersible in-pond filters are best suited for smaller sized ponds. Available as all-in-one kits and standalone filters. Standalone filters are plumbed to the suction of a submersible pump, where the pump is pulling from the filter.

These filters are good for light mechanical filtration and light biological filtration.

External Pressurized Filters

External Pressurized Filters sit outside a pond. Water is pushed to the filter where it stays pressurized, so it can be used in various setups such as running water back up to a waterfall. You'll find them available with internal foam, bio-media or sometimes both. Some models also include an integrated UV Clarifier. Many include an air blower to help with back-washing and cleaning.



External pressurized filters come in a variety of sizes and styles

Gravity Fed Waterfall Filters

These are primarily open tanks with a spillway, used to start a waterfall. A pump pushes water into the unit via a bulkhead fitting.



A waterfall filter

Typically a gravity fed waterfall filter will fill from the bottom up. Then when the water hits the spillway it overflows.

The spillway starts a nice, even waterfall (which can range anywhere from a few inches to 50 inches wide).

Waterfall filters provide filtration through filter pads and/or media added inside the tank. Most come with pads and a media bag. Bio-balls or other media (to fill the bag) are often sold separately.



A rotary drum filter

External Gravity-Fed Flow Through Filters

These are similar to waterfall filters, but there's no wide spillway. Usually a single pipe discharges water—these models cannot tolerate a high flow.

Inside external gravity fed flow through filters you'll generally find stacked filter pads. The filter itself is placed away from the pond (out of sight) with PVC pipe running from the filter as its return to the pond. These provide mechanical and biological filtration for most any sized pond.

Rotary Drum Filters

Rotary drum filters (RDFs) remove micro debris from the pond. A rotating drum inside physically separates the debris. An integrated booster pump pushes to a spray bar to clean the drum screen. These filters are all-stars at filtering out fine sediment.

Trickle-Down Filters (Bakki Showers)

Known as bakki showers, trickle-down filters, are a traditional filter often found on ancient koi farms in Japan. Stacked boxes with ceramic media inside hold good bacteria. (Media is commonly sold separately.)

Bakki showers are external gravity fed systems that sit above the water level. They



A bakki shower

provide excellent biological filtration. Some have a small waterfall attachment for a cascade effect. Others just have an open pipe discharge.

Water enters the top of the filter and trickles down through each box. As water flows through and around the media, it becomes infused with oxygen.

External Moving Bed Filters

External moving bed filters are fantastic biological filters. Their large tanks hold plastic bio-media, but what sets these filters apart is aeration. Inside an air diffuser pushes out high volumes of air that keep the media moving. This provides the bacteria on the media with more oxygen—aiding their aerobic processes and making them more efficient.

Best Filters for your pond

Choosing the best filter for your pond, comes down to

pond specs and preferences. You'll need a filter that can handle your pond size and fish load, and you'll need the physical space required for your choice.

Consider if you want the filter out of sight, or if additional functionality is desired (like a waterfall). Hopefully this post has helped you understand how different pond filters work, so you can make the choice that best aligns with your goals. When it comes to spending money on the pond, spend it on filtration. You can cut corners everywhere else.



A gravity-fed filter

2024 Meeting Schedule

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

- **July 18** – 7:00 pm at the Avellars' pond — 626 E. Pheasant Haven Court in Draper. Our speaker will be Frank Fink with Living Artsclapes.
- **August 22** – Annual BBQ and second Plant Exchange, 7:00 pm at the Cobbleys' pond.
- **September 26** – 7:00 pm at Daniel Peel's and Lewis Wayman's pond.
- **October Banquet** – date and location to be announced.

2024 Pond Tour

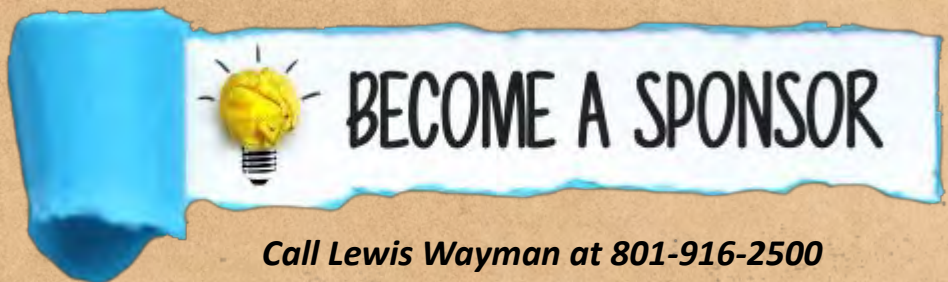
We're excited for our 2024 Pond Tour, which will be on August 3rd & 4th. If you'd like your pond or water feature to be on the tour, please contact Ty Rosser at (801) 995-8521. It's lots of fun! See page 12 for more info, including tickets

Get Involved!

We'd love for each of you to get more 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, serving as officers and directors, and so much more!

Thank You

TO OUR SPONSORS



Our June Meeting!

We held our June meeting at the Pfafflins' lovely yard and pond in Sandy. Our informative speaker was Richard Gorlin, arborist at Red Butte Garden, who patiently answered lots of questions. And everyone enjoyed pizza and other refreshments.





Tropic Star ISG Lily

Tropic Star is an ISG (intersubgeneric or hardy-tropical cross) water lily. Tropic Star is a hot pink lily with star-shaped flower. It blooms with the enthusiasm of a tropical, but can survive the winter like a hardy. Its flowers stand high above the water's surface – an unusual trait for hardy lilies – and bloom enthusiastically from late spring to early fall.

Flower color: Pink

Flower size: 4-5"

Overall spread: 3'-4'

Leaf size: 5"-6"

Rhizome: Marliac

Light: Full sun

Intersubgeneric (ISG) water lilies are a cross between tropical and hardy water lilies. ISG waterlilies have been the goal of waterlily hybridizers for the past 100 years, but success has only come in the



past decade.

As such, they represent a breakthrough in water lily hybridization. They remain relatively rare and can be expensive. But they are fairly easy to grow and can be treated like other hardy water lily rootstock.

Note: Along the Wasatch Front, Tropic Star lilies form leaves about four to five weeks later than hardy water lilies in the spring, and will bloom into October (well after hardy lilies are done for the year).



JOIN THE CLUB

Scan this QR Code or [click here](#) to
join the Utah Pond & Garden Club
or pay your 2024 dues



2024 Pond Tour



August 3rd and 4th

Information and tickets:
utahpondtour.com



Embark on this self-guided tour that includes some of the most beautiful ponds, water features, and gardens located throughout Wasatch Front.



Utah Pond & Garden Club

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 only happen with your participation!

Check out the club's website at UtahPondClub.com.

The Utah Pond & Garden Club is a Utah nonprofit corporation.

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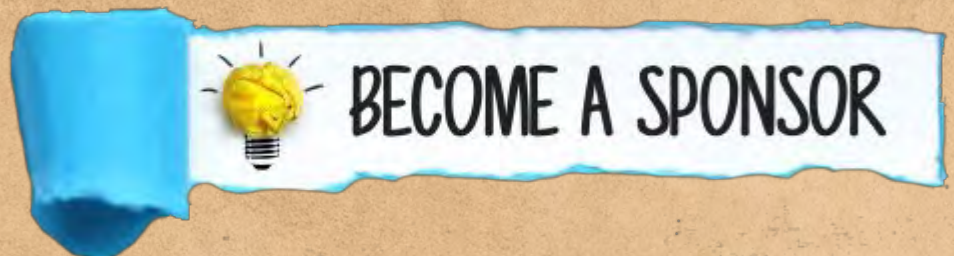
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