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Meeting

Our meeting this month will be March 19 at 6:30 PM. We will meet at Kim & Jack Payne's home. The program is about designing waterfalls.



Save the date

The HOTWGPS is planning to attend the Japanese Garden Festival at the Fort Worth Botanical Gardens on April 13th. More info will be sent later.



Membership Dues

A big THANK YOU to those of you who have already paid your 2019 HOTWGPS membership dues!

As a reminder, our 2019 membership dues were due January 1, 2019. 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 March 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.



This from The Pond Guy Blog 2/9/19

My mom wants a water feature but needs something easy to maintain. Any suggestions?



Sounds like mom has been bitten by the water gardening bug! Thanks to all the options available to budding pond hobbyists, she doesn't need to install a maintenance-heavy feature. She can find a simple-to-use one that's ideal for a small yard, patio or tabletop. It's easy to help her choose the perfect water feature. Simply ask her these questions:

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Does She Want to Keep Fish?

If so, she'll need a water feature that has a pond to house fish as well as a filtration system to keep their water clean – and the AllClearTM Ecosystem Pond Kits are designed for hobbyists who want just that. They come in several sizes, but the 6-footby-11-foot kit creates a pond that's about 700 gallons, which is large enough for a few fish and a small waterfall. It includes fish-safe pond liner and underlayment, a pressurized filter, a waterfall filter, pump, tubing, waterfall foam, installation hardware and 12 packets of Nature's Defense. All she'll need is a little help digging the hole in her yard!

Does She Want a Waterfall but No Fish?

If a waterfall is her main wish, she won't need to get dirty digging a pond. She can try self-contained, something like the AtlanticTM Colorfalls Basin Kit Colorfalls Lighted Waterfall Weir. Basin Kits come in three sizes - 12 inches, 24 inches and 36 inches - and includes a Colorfalls Basin reservoir, a TidalWave 2 pump, splash mat, auto fill valve and installation kit. She can add some aquatic plants and choose a waterfall color for nighttime viewing. And talk about low maintenance: There's no filtration system to worry about. Easy peasy!

Does She Just Want the Sound of Bubbling Water?

If she's simply after the soothing sound of bubbling water, suggest something more decorative, like the AtlanticTM Color Changing Vase Fountain and Basin Kit. Available individually in several sizes or as

a set, the polyethylene vases in this water feature come alive with color and light as water bubbles from the top. The kit includes a color-changing vase fountain, fountain basin, a plumbing kit, auto fill valve, pump and remote control to turn on the light display. This simple-to-operate feature becomes quite a show-stopper at night! These easy-maintenance water features will transform your mom's yard or patio into a relaxing oasis that she'll love. But be warned: Once the water gardening bug bites, she'll be hooked – and asking for a larger pond in no time!



I Remember

I remember the corned beef of my Childhood, and the bread that we cut with a knife, When the Children helped with the housework, and the men went to work not the wife.

The cheese never needed a fridge, and the bread was so crusty and hot, The Children were seldom unhappy, and the Wife was content with her lot.

I remember the milk from the bottle, with the yummy cream on the top, our dinner came hot from the oven, And not from a freezer; or shop.

The kids were a lot more contented, they didn't need money for kicks, Just a game

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with their friends in the road, And sometimes the Saturday flicks.

I remember the shop on the corner, Where biscuits for pennies were sold Do you think I'm a bit too nostalgic? Or is it....I'm just getting Old?



This from the Texas Invasives newsletter Chinese Tallow Tree (Triadica sebifera)



Credit: Tyler Philips, Invaders of Texas



Flowers. Credit: Thomas Preuss, Invaders of Texas



Fall foliage with fruit (some still surrounded by the capsule). Credit: Crystal Mann, Invaders of Texas

Chinese tallow is a deciduous tree that grows to 60 feet (18 m) in height and 3 feet (90 cm) in trunk diameter. Its leaves are alternate, simple, and ovalish- to rhomboid-shaped. It dangles spikes of yellowish flowers in spring, yielding small clusters of three-lobed fruit that split to reveal white seeds in fall and winter. Its foliage turns a beautiful yellow-to-orange in fall.

Chinese tallow will transform native habitats into monospecific (single species) tallow forests. It alters light availability for other plant species. Fallen tallow leaves create unfavorable soil conditions for native plant species. By outcompeting native plants, Chinese tallow reduces habitat for wildlife as well as forage areas for livestock.

This tree is highly adaptable, invading stream banks, riverbanks, and wet areas like ditches as well as upland sites, and thriving in both freshwater and saline soils. It is shade- and flood-tolerant. It can reach reproductive age in as little as three years and prolifically produces seeds, which are

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readily transported by water and birds. It also propagates via cuttings, stumps, and roots. It was commonly planted as a landscape plant (although in Texas this is now illegal); these plants serve as sources of invasion into natural areas.

As a species regulated by the Texas Department of Agriculture Chinese tallow cannot be legally sold, distributed, or imported into Texas.

Follow <u>this link</u> for more information on Chinese tallow.



This from the Pond Guy Blog

When is the best time to install underwater pond lighting?

Whether it's illuminating a patio, a landscape or a water garden, outdoor lighting can have a dramatic impact on the area's space. It creates a special mood and spotlights stunning features while adding ambient light to the environment.

Underwater lighting is best installed when your pond is empty, like while it's being constructed or – in most cases – while you're doing your annual spring cleanout. If you're putting in lights this spring, here are four key tips to follow



Choose the Right Lights:

Landscaping lights come in many different sizes and varieties, and so it can be hard to choose the best for your needs. Luckily, we offer three above- and underwater lights that will do the trick.

LEDProTM 6-Watt LED Light Kit: These lights highlight your pond and landscaping with energy-efficient LED bulbs. They shine with the same intensity as a 50-watt halogen but with a longer life span and lower energy costs.

LEDProTM 12-Watt Single Light: This spotlight also features an LED bulb, but it shines with the same intensity as a 70-watt halogen.

LEDProTM Rock Lights: Featuring a realistic stone finish, these small warm-white LED lights illuminate 10 watts per light but use only 2 watts of power. They're perfect for accenting special features in your garden.

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Point Lights to the Pond:

Rather than directing your landscape lights toward the patio or other viewing area, shine the light on the pond instead. Your goal is to illuminate your water feature — not blind yourself while viewing it.

Cast an Underwater Glow:

Beneath the water's surface, install lights that will spotlight your waterfall or stream's cascading water. And don't forget to include some that will highlight landscaping around and pondscaping in your water feature, too.

Stash Extra Power Cord:

To give yourself easy accessibility to the underwater lights when you need to change their bulbs, wrap some excess power cord around the light. This will allow you to simply pull the light out of the water and change the bulb without having to drain the water or move a rock.

Over time, algae and other debris will build up on your lights – and so you'll need to add a new to-do item on your spring cleanout checklist! Each year, plan to give those lenses a good scrubbing and replace any burned-out bulbs.



Another one from the Pond Guy

Is it time to start feeding the fish? They look hungry.



Talk about feeling hungry! If your fish are actively (or anxiously!) swimming around your water garden, nibbling and tasting your budding plants, and gazing at you forlornly as you eat your peanut butter sandwich pondside, it sounds like your finned pals are ready for some grub after their long winter fast.

Signs like these are telling, but to make sure your fish are ready to start eating regular food again, here are some guidelines to follow.

Take Your Pond's Temperature

Last fall when water temperatures fell below 40 degrees Fahrenheit on the thermometer, your fishes' metabolisms slowed way down. For the next few months, they rested in a hibernation-type state when they fasted and lived off the fat stores in their body. They needed no food from you — in fact, feeding

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them when they're hibernating can make them very sick.

Once spring has finally arrived and the sun has warmed your pond's water to 40 to 50 degrees F, your fishes' metabolism has kicked back into gear. They're swimming around and searching for food to fuel their increased activity levels. Begin feeding your fish up to 3 times per week, and only what can be consumed in a 5 minute period. They will need a wheat germ food that's easy to digest, like The Pond Guy® Spring & Fall Fish Food. Packed with plant-based nutrients, the diet will satiate their hunger, and stimulate growth and fertility.

Pump Up the Protein

Late spring and summer bring even warmer 50 degree-plus water temperatures, and that's when you can switch your fishes' diet to one that will help them develop and build some serious bulk. If growing big koi and goldfish is your goal, feed your scaled friends a high-protein diet, like The Pond Guy® Growth & Vibrance Fish Food. It contains 38 percent protein for maximum growth and includes ingredients that will make their colors pop.

If you want to simply maintain their size while supporting their health, offer them The Pond Guy® Staple Fish Food. Perfect for all pond fish, the summer staple diet contains a balanced diet of vitamins, minerals and amino acids. It's easily digestible and designed for everyday feeding. Plus, it floats – so it makes mealtime fun for you and your fish!

Check the Forecast

Mother Nature has fun with weather — particularly with temperature fluctuations in the spring — so be sure to check the long-term forecast before you start feeding your fish on a regular schedule. Ideally, the weather should be consistently keeping the water a warm 40 to 50 degrees F. At that point, feed slowly to make sure they're consuming the food at a steady pace and increase the amount as they're ready.

Happy feeding!



No day is complete until you have heard the laughter of a child

Experience is the name everyone gives to their mistakes.

A friend is the first one who walks in when the world walks out.

Kindness is the oil that takes the friction out of life.

If it looks cloudy, maybe your windows need washing.

Knowledge is the train; wisdom is the engine that pulls it.

A thorn of experience is worth a whole wilderness of warning.

When there is love in the home, there is joy in the heart.

A good way to forget your troubles is to help others out of theirs.

Every calling is great when greatly pursued.

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Life is like riding a bicycle. To keep your balance, you must keep moving!



This from the <u>Houston Chronicle</u>; More on invasive zebra mussels

Invasive mussels threaten Texas freshwater ecosystems

by

Shannon Tompkins, Houston Chronicle Feb. 16, 2019 Updated: Feb. 16, 2019 8:40 p.m.



Photo: Lon Horwedel, MBR / Associated Press

Invasive zebra mussels, now found in five Texas river basins, encrust and suffocate a pair of native clams. The alien bivalves, which explode in population in their new homes, can cripple freshwater ecosystems by out-competing beneficial native clams and consuming massive amounts of nutrients necessary to support native fish and other aquatic life.

Few Austin-area residents, or many people in the rest of Texas for that matter, paid much attention in the summer of 2017 when state fisheries scientists announced that zebra mussels had been discovered colonizing Lake Travis.

After all, the 19,000-acre Colorado River reservoir a bit upstream from the capital city and popular with recreational boaters and anglers was just the latest in a growing string of Texas reservoirs and river systems that the fingernail-size, non-native mollusks had invaded since first being discovered in the state eight years earlier. And while fisheries biologists and water managers somber offered warnings about environmental and economic devastation the small bivalves could wreak, such threats easily could be ignored as overblown or immaterial to the average Austinite's life. It was just a little mussel. What damage could it do?

They got a hint earlier this month when folks in much of Austin cracked their kitchen faucets or turned on their showers and the reality of this invasive species' wide-ranging, multifaceted negative impacts was, quite literally, brought home. Instead of the clear, clean water they expected, out poured a stream of foul-smelling, rancidtasting liquid.

Zebra mussels were to blame. Water supply lines tied to Lake Austin, immediately downstream from Travis and invaded by zebra mussel barely a year ago, were coated

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with a thick layer of millions — perhaps billions — of the bivalves. When some of those water lines were temporarily taken out of service for repairs, the mussels living in miles of those drained lines died and began deteriorating. When the lines were placed back into service, the flowing water carried the detritus of those rotting corpses directly into homes. The water, users said, smelled like sewage effluent. It took well over a week and considerable expense for Austin Water, the water supplier, to solve the problem.

Precautions a must

The episode illustrates just one of the myriad problems posed by these invasive bivalves — problems that cause hundreds of millions, if not billions, of dollars in economic costs, alter whole freshwater ecosystems, potentially devastating native fisheries and other aquatic life. Most crucially, it underscores how important it is that Texas boaters and anglers — the people directly responsible for the spread of zebra mussels — to take actions that can prevent or at least slow the spread of these malicious mollusks.

Boats brought zebra mussels to North America and have spread them to more than 30 states, hitching rides in bilges, live wells, bait wells, engine cooling systems, on hulls and engines and anything else that can hold water. Native to deep, cold lakes in Eurasia, the mussels were first documented on this continent in 1986 in Lake St. Clair, a lobe of Lake Erie where they are believed to have

arrived in ballast water of commercial ships, introduced to the lake as adults or microscopic larvae (called veligers) when that water was pumped out of the ballast tanks.

Absent natural enemies and injected into a forage-rich environment, the small mussels exhibited explosive population growth. A single zebra mussel produces about a million eggs a year and populations grow to billions within a year or less. And the mussels proved devilishly adaptable; the mollusks have thrived in waters scientists once thought too warm for an invasive whose native range is confined to cold waters. Once established, zebra mussels have proven impossible to eradicate.

Zebra mussel populations in infected waters grow at an astounding rate, quickly coating any exposed, hard surfaces, clogging water pipes and other water transportation infrastructure, out-competing native species, altering ecosystems and even changing the chemical composition of water.

The invasive mussels arrived in Texas less than a decade ago, when they were documented in Lake Texoma on the Red River. It was there they showed just how much economic havoc they could cause.

When zebra mussels showed up in Lake Texoma in 2009, the North Texas Municipal Water District was drawing water from the Oklahoma side of Lake Texoma and piping it to Lake Lavon on the Trinity River

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system. That water was carrying zebra mussels veligers, so small that filters can't block them. Not only did this provide an avenue for new infestations, it violated federal law forbidding transport of an invasive species across state lines. To address the problem, the water district built a 46-mile pipeline and infrastructure for a treatment plant that could treat the water for zebra mussels. The effort cost \$300 million and was paid for with a 14 percent increase in customers' water rates.

Submerged equipment and structures in zebra mussel-infested waters are a battleground in a constant, costly war against the mollusks, which coat any hard surface including water-intake pipes and the screens and filters designed to block foreign objects from the systems.

On Lake Austin, the mollusks quickly covered and blocked as much as 50 percent of the 24-foot-by-30-foot screens on water intake pipes within a year of the Invasives arrival. It cost Austin Water (and its customers) \$212,000 a year to contract divers to clean those intakes.

The economic costs of zebra mussels are daunting, and the environmental costs can be devastating.

Filtering out life

Zebra mussels are filter feeders, with each inch-long adult sifting as much a liter of water per day. They strain calcium and other minerals used to build their shells, removing

these nutrients from the water. They also out-compete beneficial native mollusks, denying them needed nutrients and even smothering the natives, some of them endangered species, by coating them in a suffocating carpet of scores of smaller zebra mussels.

More widely damaging, the billions of mussels in an infested water body consume vast quantities of phytoplankton, zooplankton and algae. The most visible result, as seen on many lakes where the mussels have thrived, is incredibly clear, nutrient-poor water as the mussels remove the suspended minerals and microscopic plant and animal life.

This clear water can help trigger blooms of some forms of algae that deplete life-giving dissolved oxygen from waters, resulting in fish kills. It also encourages growth of invasive aquatic plants, further damaging the ecosystem.

But the most wide-ranging negative effect of zebra mussels to a fishery almost certainly is its effect on the aquatic food chain. Threadfin and other shad species, as well as other aquatic life, depend upon an abundant supply of plankton on which to feed. The vast amounts of plankton the invasive mussels strip from the water removes that food source from shad, causing their numbers to decline.

Those shad are primary components of the diet of larger fish, especially open-water

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predator species such as white bass and striped bass but also more littoral species such as crappie and largemouth bass.

A collapse of the shad population caused by zebra mussels hogging all the plankton quickly ripples up the food chain to those fish species dependent upon those forage species. Fewer shad equals fewer white bass, stripers, crappie, largemouth and other fish that Texas' million-plus freshwater anglers target each year.

The effect of zebra mussels on a lake's fishery can be insidious, taking years to manifest. The incremental collapse can be hard to recognize until it is impossible to miss.

Even terrestrial life can suffer zebra mussels' effects. Evidence suggests the filter-feeding mussels are susceptible to concentrating a strain of bacteria responsible for botulism in birds. From 2002-06, botulism outbreaks on zebra mussel-infested Lake Erie resulted in the death of more than 50,000 water birds, mostly loons and ducks such as scaup, which feed on mollusks and are among the few animals, aquatic or terrestrial, that do so.

Boats offer free ride

Those water birds have been blamed by some as vectors responsible for the spread of zebra mussels, the claim being that birds transport either adult mussels or larvae between water bodies. Research has empirically disproved that speculation.

Boats, not birds, are responsible for spreading mussels to new river systems. Floods can spread zebra mussels down a river system, injecting them into previously "clean" reservoirs. But those mussels adults and the microscopic veliger's travel in boat bilges and bait wells, on hulls and outboard lower units and cooling systems from infected lakes in one river system to a new river system by boaters. A liter or less of water in a bilge or bait well can hold a couple of hundred of the near invisible veliger, a self-contained breeding colony of the mussels that can survive for weeks until accidentally released when the boat is launched in a new water body.

That is how zebra mussels have been spread to at least 22 lakes in five Texas river basins so far. Those lakes include Austin, Belton, Bridgeport, Canyon, Eagle Mountain, Georgetown, Grapevine, Lady Bird, Lavon, Lewisville, Livingston, Ray Roberts, Richland Chambers, Stillhouse Hollow, Texoma, Travis, Waco and Worth. River systems are Brazos, Colorado, Guadalupe, Red and Trinity.

Texas, like all states where zebra mussels have been found, is scrambling to blunt that spread through a combination of education as well as imposing regulations aimed at forcing boaters to take preventive actions.

Texas law requires all boaters approaching or leaving reservoirs, rivers or other public freshwater anywhere in the state to drain and dry all water from their boat, live wells,

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bilges, motors, bait buckets and any other water-holding receptacles or face a citation carrying a fine of as much as \$500. The rule applies to all boats, including paddle craft such as kayaks and canoes.

Despite the education efforts and laws, zebra mussels continue to spread to new Texas waters. And it's certain that spread will continue. More Texas lakes and rivers and the aquatic life in them — and more Texans — will experience the effects of zebra mussels. And as many Austenite's earlier this discovered month. the consequences are ugly and expensive.



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!!



On the Lighter Side

At a wedding I told my granddaughter Makenzi, "Look at those cute little flower girls." She pointed to the bride and said, "There's the flower mother!"

VALERIE VASSAR Coyle, Oklahama



A Fish Flv

A few years ago I took a trip to Florida with my parents and Gilbert, my 3-year-old son. He saw some flying fish during a boat ride.

Weeks later we went to my parents' home in Ohio and stopped at a Howard Johnson's for supper. Gilbert ordered fish and chips for his meal.

When the food arrived he asked me what kind of fish it was. I told him I thought it was an ocean fish and not the kind that Grandpa caught in the lake.

Gilbert announced, "Mom, it is flying fish! I just ate a wing!"

JANET LOGAN Lake Orion, Michigan



Gardening Blues

When it's spring in my garden dewdrops sparkle like glass beads.

Hungry little sparrows search the ground

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for tiny seeds.

Very busy bees find the nectar that they need.

And everywhere I look I see another weed!

CAROLYN BOLZ Riverside, California





Ripple loves cows, and I saw him trying to share his retriever training bumper. I think the calf thought it was a bottle! **BEVERLY GETTLING** *Carnation, Washington.*



Stormy Sayings

Last spring, my 18-month-old granddaughter and I were in my backyard planting some flower- pots together.

Suddenly, a loud bang of thunder boomed.

Evalina looked startled and ran toward me. I told her, "Thunder is loud! But we are OK." We quickly gathered our things and went inside.

The next week my daughter said, "Evalina, can you say thunder?" The child replied, "Boom!"

CAROL HELKE Denver. Colorado



More Eggs Please

Layla, my niece, was with her Nannie, who asked her what she would like for breakfast. Nannie always had fresh eggs from her chickens and Layla loves them. Layla said, "I want two eggs!"

Nannie said she could only have one because the hens were molting and not laying many eggs. Layla thought a moment and said, "Maybe they need some prunes!"

FRED MASHBURN Buckatunna, Mississippi



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Please support these businesses who have agreed to give our members a discount at their stores in addition to being sponsors for our 2018 Pond Tour.









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