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#### **HOTWGPS** Events

Happy New year! We all hope that 2021 will get us back to more normal environmental conditions! At least there is hope with the approval of a second immunization to help us ward off this nasty disease. Hopefully, the new administration will keep our country moving forward.

#### Presidential notes

Membership dues are due January 1 and must be paid by February 1, 2021 for your membership to remain current.

Family \$24.00 Individual \$18.00 Non-Voting associate \$12.00 Mail your check to HOTWGPS, PO Box 852, Lorena, TX 76655



The following is from the Pond Guy

## Now that my plants are gone, how do I protect my fish?

ASKED BY: Vicky of Chatham, NH



**A:** This time of year, aquatic plants are tough to find in backyard ponds. Cold

temperatures and fewer hours of sunlight make all the lush greenery die off or go dormant for the winter -- and that leaves your fish high and dry and without any protection from hungry predators, like raccoons, herons and passing coyotes.

The lack of lily pads, hyacinth leaves (**OK for northern climates but NOT in Texas!**) and other plant cover also means more sunlight will penetrate the water. All those rays can lead to algae blooms and poor water quality, which is not something your hibernating fish will appreciate.

So how do you protect your finned friends from hungry bad guys during the sparse winter months? Here's what we recommend.

Create fish habitats: Because fish will naturally hide in crevices between rocks and other sunken debris, replicate that environment by creating fish habitats and caves. Prop up some slate slabs to make a fabricated lean-to. Build extra hiding places with clever rock placement. Provide an ecosystem that will encourage them to do what's natural.

Install fish shelters: In the winter, fish will intuitively head to deeper water where it's warmer and safe from claws, paws and beaks. But to add another layer of protection -- particularly if your pond isn't that deep -- give them plenty of sheltering options. Install a **Koi Kastle** or two. Lay down some empty flower pots or short lengths of 4-inch PVC pipe. Give your finned pals plenty of options to hide, just in case predators stop by the pond.

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Crank on your aeration system: As your aeration system bubbles and infuses oxygen throughout the water, it creates water surface movement that can help camouflage your fish from overhead predators. The aerator will also keep the water churning, and create a hole in the ice for gas exchange. If it's not running already, now's the time to crank it on!

Until your plants start growing again, keep your fish safe and sound with these simple steps — and do it before the frigid temperatures really kick in.



#### Why Are Your Fish Hiding?

There's nothing more frustrating than hiding or skittish fish. Part of the joy of having a water garden is to sit by the pond's edge, feed your fish and relax while you watch them enjoy their underwater world. When they dash off and hide at the site of anything coming near them, or they hole up and never come out, it almost defeats the purpose of having koi or goldfish in your pond! Here are a few reasons why your fish may be hiding.

#### **New To The Pond**

It's tough to move into a new pond. If you've recently added new koi or goldfish to your water garden, you can expect them to be a bit shy or skittish. They need to check out their new home, get used to having new roommates and adjust to a new way of life. The fish already living in the pond could turn tail and hide, too. The new fish, depending on size, could spook the old fish, causing them to retreat to their favorite hole.

If this is the case in your pond, give the fish time to adjust. As soon as they're used to their new home and used to one another, they'll eventually come out of hiding. Encourage them to be social by tossing some floating food, like **Staple Fish Food**, into the pond. That'll bring them to the surface!

A word of advice: Before adding new fish to your pond, remember to quarantine them for a week or two in a separate tub to be sure they don't have any parasites or fungal infections that could infect the rest of your population.

#### Water Changes

Fish can also become skittish and hide after water changes. Any change to their environment - like the water quality, pH level, or oxygen level - can cause them to stress, and when they stress, they may retreat to their favorite hiding spots.

To keep the water quality as even as possible, test your water's pH, ammonia, nitrite, and phosphate levels regularly using a commercial water testing kit. You'll also want to keep your water well-aerated using a diffuser, like the **Pond Aerator**, to be sure the fish get an ample supply of oxygen. Also, be sure to check your filtration system regularly, cleaning or replacing filter media as needed.

#### **Predators**

Imagine looking up and seeing a clawed paw grab for you or a sharp beak slice through the water. Predators, like raccoons and herons, love a good sushi dinner - and that's how they see your fish! If your pond

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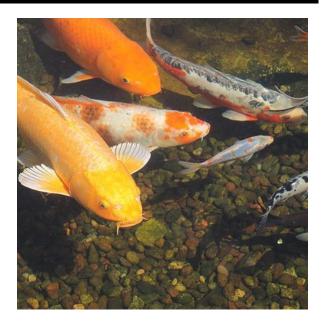
and its inhabitants have been visited by hungry predators, your fish are hiding for their lives.

To chase off unwanted visitors, you can try a range of **deterrents**, including motion-activated sprinklers, like the Motion Activated Scarecrow; decoys, like the Great Blue Heron Decoy or 3-D Coyote Decoy; pond netting, like the **The Pond Guy PondShelter Cover Net**; or reflective tape hanging from trees. Having 40-60% surface coverage of **aquatic plants** such as water lilies, will give your fish a place to shelter themselves from predators.

#### **Under the Weather**

Stressed or sick fish will also hide. If they're not feeling well, it's normal for them to segregate themselves away from the crowds. If you think your fish may be sick, try taking a closer look at it. Using a net, like the **3-in-1 Interchangeable Pond Tool**, fish it out and put it in your quarantine tank. After you determine what the problem is, treat the fish and the pond accordingly.





# What do you really mean when you say fish are dormant for the winter? Do they sleep?

A: When the days shorten and temperatures drop, koi and other pond fish enter into what's called torpor, or a period of decreased physiological activity that allows them to save energy. They don't sleep the winter away, but they do essentially hibernate—their metabolism slows, they require less food, their activity level drops and their body temperatures reduce.

How do they know they need to hibernate, and what can hobbyists do to make their finned friends' winter torpor restful? Read on to learn more.

#### **Mother Nature's in Charge**

Fish don't use calendars to decide when to take their winter snooze. Instead, they follow Mother Nature's lead. Because fish are cold-blooded, their metabolism reacts to the external environment. When the water

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temperature falls, so does their activity level: Their appetite dwindles, they digest food more slowly, and they expend less energy. In the spring when temperatures warm back up, the fish will naturally come out of their torpor. They'll start to seek out food as their metabolism increases, and they'll become active once again.

#### **Suspended Animation**

You'll know when your fish go dormant. They won't lie down on the pond's bottom or curl up in their cozy **Koi Kastle**, but they will float upright, tuck in their fins and remain suspended in the water. As the fish hover there, you may still see some *super* slow movement, and they may also wind up facing in the same direction as if they were heading somewhere at less than a snail's speed.

#### Sweet Dreams, Koi!

Here are four ways to give your koi a peaceful winter rest:

Set up an **aeration system** to keep the water pumped full of oxygen. Even though they're hibernating, your fish will still need some fresh O2.

Install a **de-icer** to keep a hole open in the ice and allow for gas exchange. If the pond freezes over, use warm water to reopen a hole; do not bang on the ice to crack it, as doing so can stress your fish.

Keep as much debris out of the pond as possible to prevent muck buildup over the winter.

Let the fish be. Don't try to get them to move or swim or wake up from their slumber. Keep an eye on them, but leave them alone until they wake up on their own.



## Running a pond heater is expensive. Do I have any other options?

ASKED BY: Vicki of Pawtucket, RI

A: Yes, those pond heaters are expensive to run! But guess what? You don't need one in the first place! Heaters are more frequently used in aquariums, particularly those that house warm-water fish like tetras or angelfish.

In your pond, the fish will overwinter just fine without a heater—even if temperatures drop below freezing. Pond fishes like koi and goldfish naturally go into wintertime hibernation when temperatures fall. They'll stop eating, their metabolisms will slow way down and they'll snooze through the winter without worrying about how warm their water is.

However, if you live in areas that experience freezing temperatures that cause your pond to ice over, you do need to worry about keeping a hole in the ice. The hole allows toxic gases like ammonia to escape while allowing oxygen in, and your fish will need that fresh O2.

So how do you create that hole? Not with a pond heater! Check out these much cheaper alternatives:

#### **De-Icer:**

A de-icer floats on the water surface and melts a hole in the ice. Unlike a heater that actually warms the entire pond, a de-icer

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simply melts an opening in the ice sheet, thereby allowing for gas exchange.

#### **Aerator:**

Rather than create a hole in the ice from above, an aerator like the PondAir (for smaller ponds) or Pond Aerator (for larger ponds) circulates the water below the ice sheet. In areas with mild winters, that subsurface water movement will keep a hole in the ice—but when temps really dip, an aerator may not be enough to maintain a vent hole.

#### **De-Icer, Aerator Combo:**

An excellent and convenient option to consider is the <u>PondAir & Thermo-Pond Combo</u>. It combines both the Thermo-Pond de-icer and PondAir Aeration Kit, providing your water feature the one-two punch it needs to stay well-vented throughout the winter. Watch the video for benefits and installation.

If you live in an area with temperatures that hover around the freezing mark, consider picking up a Thermo Cube. It's a thermostatically controlled outlet that turns on when air temperatures drop below 35°F and turns off when air temps rise above 45°F.

So put that pond heater on Craigslist and invest in a de-icer, aerator and thermostatically controlled outlet. It'll save you money in the long run!



This from the December 2020 Texas Invasives Newsletter

## **Invasive Spotlight:** Yellow Floating Heart

(Nymphoides peltatum)

Yellow floating heart is a freshwater floating perennial that grows in slow-moving water ways, such as lakes, ponds, swamps, channels, and even mudflats. It grows rapidly, covering the entire surface of the water, shading out and outcompeting native vegetation. Decomposing vegetation impacts water quality causing severe declines in algae, disrupting the entire food web. Thick mats can create stagnant, low- oxygen water conditions that create ideal conditions for mosquitos, but force fish to relocate, and make water recreation impossible.



Yellow floating heart (*Nymphoides peltatum*), example of thick mat. Credit: Lyn Gettys, University of Florida.

Yellow floating heart possesses runners (stolons) that grow up to 2 meters, and aggressively root in the substrate. The round to heart-shaped leaves float and range from 1.2 - 5.9 inches in diameter (3 - 15 cm). They have slightly wavy margins, and usually grow in an opposite and unequal arrangement. Leaves are green to yellow-green and often purplish underneath. Flowers are bright yellow with five petals, each with fringed edges, and range in size from 1 - 1.5 inches (3 - 4 cm) in diameter.

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Two to five flowers grow from each node above the water surface on a stalk. The plant usually flowers between May and October.



Bright yellow flowers with five petals. Credit: Mark Malchoff, Univ. of Connecticut

Yellow floating heart was intentionally introduced in the U.S. as an ornamental plant in water gardens, and escaped captivity. It has since spread to numerous states both intentionally and accidently. It is spread naturally by producing daughter plants that break off and float to new areas, via rhizomes and tubers, and by hairy seeds that are spread by water currents or animals. Watercrafts also spread it by fragmenting and carrying it to new locations. Although this species is prohibited in some states, including Texas, it is widely available for purchase online. As a TPWD regulated species, it is illegal to sell, buy or transport yellow floating heart in Texas.



Round to heart-shaped floating leaves. Credit: Vick Ramey, University of Florida.

Yellow floating heart threaten aquatic habitats, especially in East Texas. Click <u>here</u> to learn about native look-alikes, management, and more. If you believe you have identified a suspected yellow floating heart, please <u>REPORT IT!</u> here.

If you are a private or public water property owner with exotic aquatic species that you wish to remove, you may now have new options for removal due to rule changes recently issued by TPWD. See <u>TPWD</u> adopted rule changes.



#### **Pond Vac**

As a reminder, this is a "Members Only" benefit. You can <u>rent</u> 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 <u>jnenders@aol.com</u> 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

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being removed! That is the voice of experience talking!!



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