

What can I do to help the creatures in my pond over the winter?

Helping the wildlife that lives in garden ponds to survive the cold weather

To help the creatures that live in and around your pond survive the cold weather it is important to have a range of wildlife-friendly areas in your garden, that will provide them with shelter in the water and on land.

Areas of longer grass, overgrown corners or piles of wood or stones, can provide a vital refuge for many creatures.

My pond was full of frogs and tadpoles over the spring and summer: where are they now?

Amphibians are as happy out of the water as in it during the cold weather, as long as they can stay moist and safe from freezing temperatures. No British native amphibians can survive freezing, although there is an American frog that, remarkably, can survive being frozen solid.

When creating terrestrial habitats it is important to have cover around the pond, because young frogs, toads and newts need damp habitat to move into as they leave the water.

However...some stay in the water

Frogs, and occasionally newts, quite often hibernate at the bottom of ponds among the leaf litter and plants. They can tolerate very low oxygen levels but will survive only a few days if the pond becomes completely de-oxygenated. To minimise the risk of this, make sure that your pond plants are getting some light and can go on producing oxygen under the ice.

If your pond is covered in snow it will be completely dark under the ice, stopping submerged plants and algae from photosynthesising and creating oxygen. Carefully sweep away as much of the snow as you can to allow the light to reach the plants.

Tadpoles also occasionally overwinter in the water when they don't develop fully during the summer and autumn. No-one knows much about their survival chances overwinter, but it is likely that keeping the pond in generally good shape is the best thing you can do.

What can I do to help amphibians overwinter in my garden?

For hibernation sites, amphibians like damp (but not soaking wet) places that provide shelter from freezing. These can vary from a patch of loose earth, to a more substantial structure, often called a hibernaculum.

Having a compost heap, or log pile in your garden can provide a perfect overwintering hideaway for your amphibians. Wood that is damp, or decomposing with higher moisture levels is favoured above drier wood. If you have a pile of wood or leaves in your garden, check it carefully for sheltering creatures, including amphibians and reptiles, before starting any autumnal bonfires as it's not just hedgehogs at risk.

Amphibians also like to hibernate under piles of rubble, in stone walls, and in the foundations and brickwork

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of old buildings. Sometimes they will also hide under paving slabs, the garden shed or even the greenhouse, so make sure you are careful when doing any garden renovations in the autumn or winter.

Can I make artificial hibernation sites for the amphibians in my garden?

Purpose built hibernacula, can also be a great help to the overwintering amphibians in your garden. These can be piles of wood, rubble or other material, that are then covered by turf to provide a damp, but sheltered habitat.

Amphibians prefer to hibernate in small spaces, so packing in loose soil or wood chippings will make hibernacula more attractive to them.

How will my dragonflies, water beetles, mayflies and all the other invertebrates cope with the cold weather?

Most pond wildlife will probably be fine as long as the pond doesn't become completely de-oxygenated. Clearing the snow off the ice of a frozen pond is a simple measure that should help to keep a pond oxygenated. Running a pump, if you have one, may also be a good idea. This will certainly help fish, though no-one knows how it affects the rest of the pond's wildlife.

Ultimately, good water quality, and allowing plenty of submerged plants to grow is probably the best way of making sure that your wildlife survives well overwinter.

I have goldfish, koi or other fish in my pond: how can I help them survive?

Fish keepers traditionally oxygenate their ponds in winter to help the fish. This is because we often keep more fish in small ponds than can strictly be supported by the natural processes of oxygenation and water purification. This is fine as long as you can keep the pumps or fountains running, and is helped by the fact that in winter fish have much lower oxygen needs than in the warmer weather.

Goldfish are amongst the most tolerant of freshwater creatures to pond freezing and can survive at least as long as frogs can. However, be warned that this isn't much more than a week or two so, under snow covered ice, they are at risk.

Take particular care with Koi carp, which are generally more delicate than other types of pond fish. Koi certainly need oxygen, but even if there is a good oxygen supply they may simply be too stressed by the cold weather to survive – and fish once weakened will often be killed by parasites and diseases even after the cold weather ceases.

For fish it's worth trying to keep some water circulation going if you want to get them through the winter. Keep a bit of the ice open, run a fountain, and make sure the pump continues to work. It's probably worth clearing snow: nobody knows for sure if this is an effective way of helping fish, but it should get a bit more oxygen into the water.

If my pond freezes should I make a hole in the ice?

We don't think that making a hole in the ice will affect the amount of oxygen diffusing into the water, since this is naturally a slow process.

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However, there is no *harm* in playing safe. It may still be worth making a hole in the ice to allow more active animals like fish or newts to move to the surface to breath air.



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