How to set up a wildlife pond

Wildlife ponds are a brilliant tool for local conservation and an attractive feature in any garden. They can help support local populations of invertebrates, mammals, amphibians and birds, and watching them is an interesting pastime.

As a general rule you should, within reason, plan for a pond as big as possible since this will support more wildlife by providing more resources. However, a small wildlife pond is better than no pond at all, so don’t worry too much about size.

Planning your pond

Regardless of size, wildlife ponds should be installed in the right location. All ponds should be placed so that:

- It is level and you will not have a ‘high end’.
- It is placed in a warm, sunny site.
- It is close to areas of foliage and low bushes.
- It is not too close to trees (which will drop leaves and their roots are difficult to dig through).

Installing your pond

Once you have decided where you want your pond, the next step is to decide what type of pond would work best for you. Ponds are commonly constructed using two main methods, preformed ponds or liners. There are other methods such as brickwork and fibre glass, but this is best undertaken by experienced professionals.

Preformed ponds are made of plastic to set sizes, which can be put straight into the ground. They are made from various materials and are resilient to outdoor weather. It is best to choose a pond with lots of shelves and a depth of at least 60cm in some places to provide more stable temperatures during the year. It should also have some shelves to allow plants to be placed in the shallows. It is then time to start digging a hole large enough for the pond, ensuring that any sharp objects are removed. Once the hole is dug, it is best to put in a layer of soil or sand at the bottom to protect the pond and put the preformed pond inside, ensuring it is level using a spirit level. Fill the pond in stages and backfill the hole with sand or soil, ensuring the pond remains level throughout the process. However, as wildlife ponds do not normally contain fish, almost any preformed object could be used if space is limited. For example, barrels, tubs or even large plant pots will provide a habitat for plants and small aquatic invertebrates. These should be placed on a flat, level surface similar to any other pond.
Liners provide much more flexibility and can be bought in custom sizes, allowing a pond of almost any shape or size to be constructed. It is important to oversize your liner to ensure that it will fit the pond when full of water - ask your OATA retailer for guidance.

First, plan the size and shape of the pond by marking it out on the ground to be dug. For best results, ensure that it is not uniform: an irregular shaped pond with lots of different depths will be more attractive to wildlife than a deep rectangle. Begin digging, ensuring that you leave shelves in places, and it is at least 60cm deep in some parts. Once the area of the pond is dug out, ensure that no sharp objects are present. It is then best to install an underlay to protect the liner. Once this is in place, lay out the liner loosely in the hole and make sure there is an excess hanging over the edges. Slowly fill the pond with water using a hose pipe, lifting the liner to remove any wrinkles and folding the liner into any corners. The weight of the water will push the liner firmly into place. Once the pond is full, the excess liner needs to be held in place with either paving or stonework being popular choices. Take care with limestone rocks in ponds as they can fragment in frosty weather. Avoid mortar (from paving) falling into the pond since even a small amount of fresh mortar can make the water dangerously alkaline and harmful to wildlife.

Once your pond is full, the water needs to be dechlorinated. This can be achieved by either leaving it to stand for 24 hours allowing the chlorine to dissipate, or by using a commercial dechlorinator which will also remove any heavy metals found in the tap water.

**Enhancing your pond for wildlife**

Once you have built your pond, you will need to optimise it for wildlife.

- Ensure that one side has a long gentle slope up to the pond’s edge. This will allow birds to wade in, and any animals like hedgehogs that might fall in, to escape. This is essential to protect wildlife and is easily created by having a shallow **level** shelf and building up a slope on it using pieces of stone or cobbles. If the shelf is not level, then cobbles placed on a slope will just tend to roll into the depths of the pond.

- Planting many different types of native plants in and around your pond will provide wildlife with resources and make it an attractive feature in your garden. Make sure to plant lots of different types: submerged, floating and marginal plants will all help to improve the habitat you are providing. The RSPB have a good list of native plants which can be used in different areas of the pond: [Wildlife Pond Plants for the UK](#) | [Stocking a Pond - The RSPB](#). Take advice from your plant supplier on the best varieties for your pond. Some native varieties can be quite vigorous and could soon overgrow a small pond.
Ensure that the area surrounding the pond is planted and has other habitat types, such as log piles. This will provide cover so more nervous wildlife can utilise the pond. It will also provide different areas for animals such as frogs and newts that might not want to spend all their time in the water.

One of the best ways to enhance your pond for wildlife is to avoid adding fish to the pond. Fish reduce the numbers of many of the small invertebrates that will form the basis of the wildlife pond and UV units used in some pond filters can reduce the diversity of micro-organisms in the water. You can apply some of the themes of a wildlife pond to your garden fish pond, but a dedicated wildlife pond will provide the most opportunities for wildlife to establish.

Let wildlife come naturally. Although it is tempting to seed your pond with organisms from other wildlife ponds, this can cause issues by bringing in disease or spreading non-native invasive species. Wildlife ponds will naturally attract wildlife, so be patient. It helps to make gaps in garden fences that are large enough for frogs and newts to crawl through.

**Maintenance**

Wildlife ponds need very little maintenance. In fact, too much management is likely to have a negative impact on the pond. Some species of plants will grow quicker than others, so these should be trimmed back, or removed if they become a problem. In addition, duckweed may enter the pond on wild birds and this is best removed as it can quickly take over the pond. It may be worthwhile netting the pond over during autumn, to keep out excess fallen leaves from nearby trees and shrubs. A few sunken leaves benefit wildlife, but too many will quickly smother the pond. Use square mesh ‘welded/flat’ nets, rather than the stretchy knitted/diamond types, which frogs can get trapped in.

**Shopping List**

As a general checklist, to construct a wildlife pond, you will need:

- A pre-formed pond or pond liner
- Sand (to help stabilise the pond)
- Underlay (if using a pond liner)
- Live plants
- A hosepipe
- Water conditioner/dechlorinator
Wildlife advantages with a garden pond

**ADJOINING PLANTED AREAS**
Provide a link to other habitats. Shelter for birds and amphibians, hedgehogs and voles etc.

**MOIST AREA**
Allows a wide variety of plants to be grown. These help to attract insects and provide cover for other wildlife.

**BEACH AREA**
Makes it easier for amphibians to enter and leave the pond. Birds can drink and bathe in the shallows. An especially rich habitat for microscopic aquatic life, with cover in amongst the stones for insect larvae and young frogs.

Water can overflow into the moist area following rain.

**MARGINAL PLANTS**
Provide shelter from excessive wind and sunlight, and cover for wildlife. Aquatic life lives in amongst the roots. Insects can leave the water by clambering up the stems.

**LILIES, LILY-LIKE PLANTS, AND FLOATING PLANTS**
Provide valuable shade during summer, keeping the water cool and reducing excessive growths of green water and thread algae. They also provide a foothold for aquatic life and visiting insects.

**SUBMERGED AQUATICS**
Use up excess nutrients in the water, helping to keep the pond healthy and clear. They provide food and shelter for aquatic life, and microscopic organisms live on the plant surfaces. They oxygenate the water during daylight hours.

**Ducks and Waterfowl**
Can be very messy and disruptive. They should not be encouraged except perhaps in the very largest of ponds or lakes and then only in moderate numbers.

**FREE SURFACE**
Aim to keep some of the surface free of plants, to allow light to reach the submerged aquatics, and gases to exchange at the water surface.
*Never release your aquarium animals or plants into the wild
It is illegal and for most fish species this will lead to an untimely and possibly lingering death. Any animals or plants that do survive might be harmful to our native countryside.
Take care to properly dispose of any soiled substrate (e.g. sand or gravel) or decorations so that non-native organisms do not enter natural watercourses.

Visit ornamentalfish.org to find a full range of how to guides and species-specific care sheets to help you look after your fish successfully.