

Ponds



Ponds are one of the best habitats you can provide for wildlife. As well as frogs, toads, newts and dragonflies they are home to hundreds of beetles, spiders and other insects. Birds and mammals visit them to drink and bathe – and they endlessly entertain and soothe their owners.

When choosing a site for your pond consider:

- ◆ **How it relates to other wildlife features in the garden** Wild creatures need places to shelter and hide; if the pond is next to long grasses, a hedge or shrubs, this gives them cover. A nearby logpile provides a good hibernation site for frogs and other creatures.
- ◆ **Sun and shade** Plenty of sun is desirable as this encourages lots of plant growth. If possible avoid siting near trees; when the leaves blow off in autumn they will absorb large amounts of oxygen as they rot, reducing the number of species the pond can support.
- ◆ **Allow space for a marshy area**

Remember that ponds can be dangerous to young children. A toddler can drown in only 8cm of water.

Designing your pond

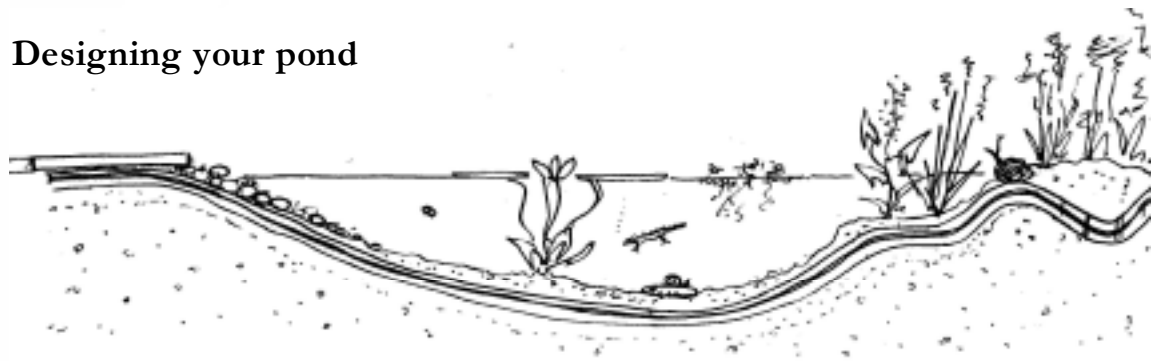
- ◆ **Size** Every pool is of benefit to wildlife, but the bigger you can make it the better it will be.
- ◆ **Shape** Curved is most natural looking but frogs and toads won't grumble about formal shapes so long as there is a gently sloping edge to scramble in and out of the water.
- ◆ **Depth** The deepest point should be at least 75cm. This will allow hibernating amphibians and invertebrates to survive when the pond is frozen. There should be a shelf about 20 to 30cm deep to place emergent plants, such as water lilies.
- ◆ **Shallows.** Shallow water provides somewhere for birds to bathe, frogs to lay spawn and warm water for the flourishing of invertebrates.
- ◆ **Bog garden.** A place for kingcups, lady's smock and meadowsweet. A good hiding place for small wild creatures.

Choosing a liner

- ◆ **Butyl rubber** sheeting lasts 30-50 years and is the best option – but expensive. Polythene and PVC are cheaper, but short-lived.
- ◆ **Puddled clay** is the traditional pond liner, worth considering if you have a heavy clay soil. The clay must be laid in a thick layer across the pond, watered well, then trampled or “puddled.”
- ◆ **Pre-formed fibreglass** ponds may not have shallow areas. They are also awkward to install as the hole has to match their shape exactly.

Shropshire Wildlife Trust protects wildlife where you live.

Supported by





Making a pond with a flexible liner

- ◆ Mark the outline of the pond using canes, a length of hosepipe or a rope. Mull it over for several days to make sure it's exactly how you want it.
- ◆ Remove the turf and keep some of it in a shady corner. Use it later to conceal the edges of the liner.
- ◆ Dig a hole approx. 20cm deeper than needed, to allow for sand, matting and liner. Make sure the shallow areas, shelves and deep area are where you want them. Use a spirit level to make sure the edges are level around and across the pool.
- ◆ When digging out, the topsoil is fertile and can be spread on a vegetable or flowerbed. The subsoil is less fertile – ideal for a wildflower meadow.
- ◆ Calculate the size of the liner as follows:
 - ◆ **Length = length of pond + (2 x maximum depth) + 1m edging**
 - ◆ **Width = width of pond + (2 x maximum depth) + 1m edging**
- ◆ Smooth the surface, removing all stones then spread a layer of sand approx. 5cm thick all over the hole. This will protect the liner. You may also wish to lay special protective matting or an old carpet underneath the liner.
- ◆ Lay the liner across the hole. Tread on it only with soft-soled shoes or bare feet. Weight the edges with bricks.
- ◆ If you intend to plant directly into mud on the bottom, shovel in a thin layer of sub-soil.
- ◆ Fill the pond. Rainwater is ideal but tap will do. The water will push the liner into the contours of the hole. Adjust the weights at the edge to give it some slack.
- ◆ Do not cut off any excess liner until the pond is completely full. When the pond is full bury the edges of the liner in a trench filled with soil or cover the edges with turf or paving slabs. Your pond may take a while before it settles down. Expect murk before beauty!

Plants for your pond

Native plants are not just beautiful, they're also ideal for wildlife, providing food for a wealth of insects and other pond creatures.

Submerged oxygenating plants

Water starwort *Callitriche* spp.
Hornwort *Ceratophyllum demersum*
Water milfoil *Myriophyllum spicatum*
Curly pondweed *Potamogeton crispus*

Emergent plants

Flowering rush *Butomus umbellatus*
Bog bean *Menyanthes trifoliata*
Lesser spearwort *Ranunculus flammula*
Bur reed *Sparganium erectum*
Water plantain *Alisma plantago-aquatica*
Yellow flag iris *Iris pseudoacorus*

Deep water plants

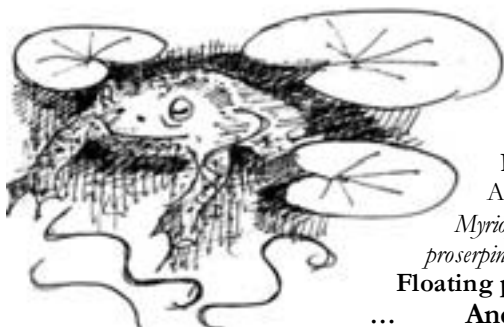
Water crowfoot *Ranunculus aquatilis*
White water lily *Nymphaea alba*
Yellow water lily *Nuphar lutea*
Broad-leaved pond weed *Potamogeton natans*
Amphibious bistort *Polygonum amphibium*

Bog garden plants

Water mint *Mentha aquatica*
Hemp agrimony *Eupatorium cannabinum*
Ragged robin *Lychnis flos-cuculi*
Kingcup *Caltha palustris*
Brooklime *Veronica beccabunga*

Problem pond plants

Some non-native plants are very invasive and once established, virtually impossible to control. They can quickly form dense carpets that displace the native pond flora, silt up the pond and cause de-oxygenation and nutrient enrichment.



Avoid at all costs....

Australian swamp stonewort *Crassula helmsii*
 Also sold as New Zealand pigmy weed or stonewort, *tillaea recurva* or *crassula*.

Water fern *Azolla filiculoides*
 Also sold as Fairy moss, Fairy fern and Carolina water fern.

Parrot's feather *Myriophyllum aquaticum*
 Also sold as Red-stemmed parrot's feather, *Myriophyllum brasiliensis* and *Myriophyllum proserpinacoides*.

Floating pennywort (*Hydrocotyle ranunculoides*)

... **And be very wary of**

Canadian pondweed *Elodea Canadensis* **Greater reedmace** *typha latifolia*, also popularly known as *bulrush*. These are both very invasive plants, which take a lot of controlling.

Shropshire Wildlife Trust
 193 Abbey Foregate
 Shrewsbury
 Shropshire SY2 6AH
 Tel: 01743 284 280
www.shropshirewildlifetrust.org.uk