

# MAKE SPACE FOR **WILD**life



*'Wildlife habitat creation in small open spaces and gardens' – a series of leaflets to help manage, enhance and create areas for wildlife in the Vale of Glamorgan*

Leaflet  
**5**

## Ponds

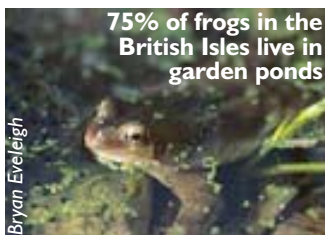
This leaflet is a basic guide to manage, enhance and create wildlife ponds and associated habitats. Ponds and marsh areas provide lots of different places for plants to establish and are one of the easiest ways to attract a lot of new animals. The information presented focuses upon a few simple ideas that will create a wildlife pond.



Wiggly Wiggles



Stephen Lowe



Bryan Eveleigh

**75% of frogs in the British Isles live in garden ponds**

From 1988 to 1994 14% of ponds in the UK disappeared reducing the number in Wales to 14,500. Declines have now slowed to around 1% each year but this is largely due to the creation of new ponds – not the conservation of old ones. Farmland ponds are becoming more rare because they are drained or silt up over time.

**This makes ponds in wildlife areas an even more important habitat for many plants and animals.**

The pond itself will provide a habitat for lots of aquatic plants and animals and provide drinking water for birds and mammals. Marshy areas around the pond produce a habitat where aquatic plants will thrive and these margins will support lots of other animals such as newts, frogs and dragonflies.

Wiggly Wiggles



## Get digging

The first thing to decide is where to locate the pond – on flat ground and in the sun means that the water warms quickly in spring and helps plants grow. Make sure it doesn't receive full sun all day though, otherwise too much algae grows.

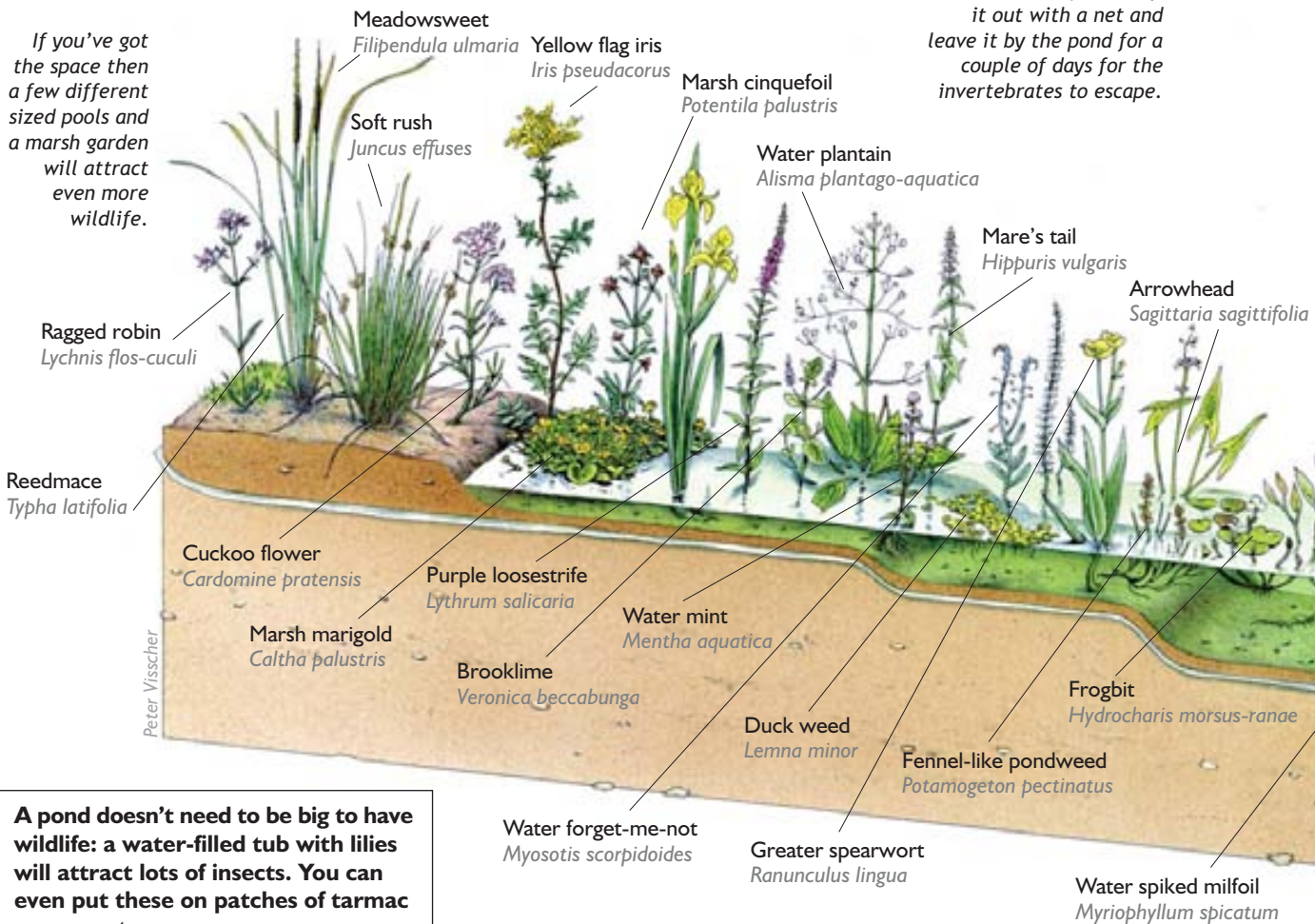
The pond can be as big as you like but must have a shallow end and sloping sides to let amphibians in and out and for mammals and birds to drink. It should also be at least 50cm deep at one point to protect hibernating animals from ice.



Gill Harvey

If you get a build-up of blanket weed then don't use a chemical herbicide: just scoop it out with a net and leave it by the pond for a couple of days for the invertebrates to escape.

If you've got the space then a few different sized pools and a marsh garden will attract even more wildlife.



**A pond doesn't need to be big to have wildlife: a water-filled tub with lilies will attract lots of insects. You can even put these on patches of tarmac or concrete.**

- 1 Mark out the area with flour, canes or string – wavy edges provide a larger margin and look more natural – check you're not putting it over underground wires or pipes
- 2 Dig the hole – make sure there are shallow shelves (between 1-15cm) for animals to get in and out and for some plants. You could also have a really shallow area and cover it with gravel – yet another habitat. It should be at least 50cm deep at one point to protect animals in the winter
- 3 Put down a layer of sand (2.5cm deep) and remove sharp stones before fitting a butyl or EPDM pond liner with an overlap over the rim. When measuring your pond make sure you account for length, width and depth
- 4 Fill the pond with water – After the first filling use water collected in a water butt to top up as tap water can be harmful to wildlife
- 5 You can use the soil you dig up to build a rockery or a bank with long grass for insects and crevices for hibernating amphibians such as great crested newt

## Restoration

Before starting any work on an existing pond it's important to see what lives there already so that you don't risk harming its occupants. Great crested newts are a rare species so if you think they live in your pond contact the Council for advice.

It might be necessary to clear a pond completely – if this is the case then be careful not to damage the lining. If the pond doesn't have any shallow areas then make them with sandbags or old bricks. You might need to clear out some sediment and prune back overhanging plants.

- **Survey first.**
- **Work in the late autumn.**
- **Be careful.**
- **Clear sediment and out-of-control vegetation: leave it by the pond for a few days to let creatures escape.**
- **Prune overhanging plants.**

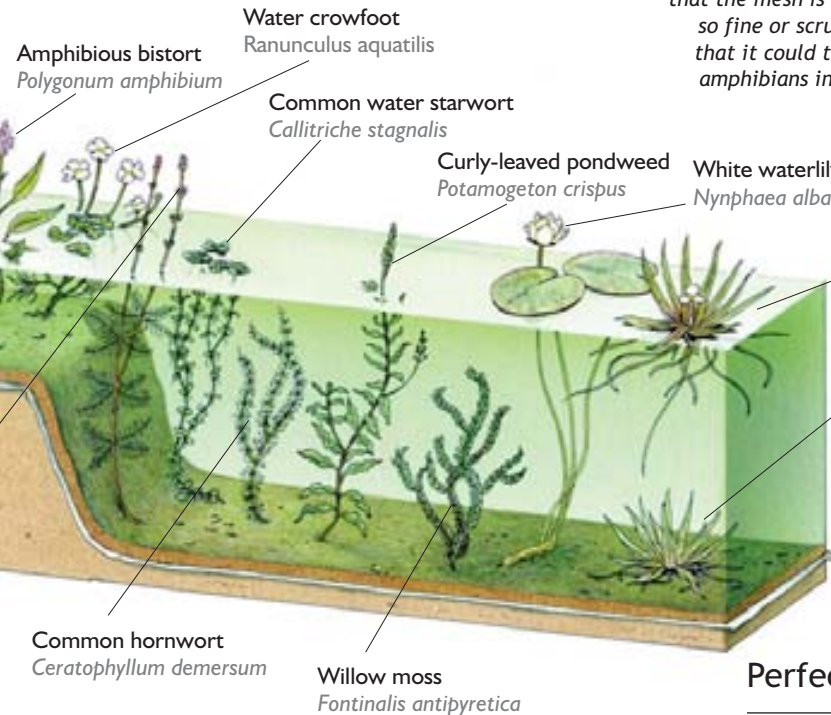
**GREEN WATER**  
Your pond water may turn green with algae. If this happens, a submerged plastic mesh bag stuffed with barley straw can help. Make sure that the mesh is not so fine or scruffy that it could trap amphibians in it.

## Picking plants

Plants are really important for your pond. They help it to stay clean and oxygen-rich; provide shade and lots of protection for aquatic animals as well as a splash of colour.

Try to establish a mix of native plants (see Table 1) – non-native ones can soon cause problems.

Don't over manage your plants during the summer as lots of animals will live and lay eggs in them.



### BUILD AN UNDERWATER VIEWER

Cut the end off a plastic tub and secure some clingfilm to the end with a rubber band. Lower the clingfilm end into the water and use it to look around.

## Problem plants

Non-native plants can often be very attractive but can grow out of control. When they do, they shade-out other plants and reduce the amount of oxygen in the water.

Avoid: parrot-feather, water fern, floating pennywort, swamp stonecrop

## Perfect pond plants

Table 1

Submerged plants	Floating plants	Margins and marshes
Curled pondweed	Broad-leaved pondweed	Bugle
Water starwort	Frogbit	Marsh marigold
Water crowfoot	Smaller water lilies	Lady's smock
		Ragged robin
		Marsh woundwort
Shallow water plants	Tall plants	
Amphibious bistort	Flowering rush	
Water forget-me-not	Pond sedge	
Lesser spearwort		

## Amphibians

### Great crested newts

The great crested newt is much bigger than our other two native species (common and palmate). Female great crested newts can be up to 17 cm long whereas common and palmate only reach around 10 cm.

The great crested newt is a priority species for conservation in Wales and is protected by both UK and European wildlife law. Their numbers have significantly declined over the last 50 years mainly due to a loss of suitable ponds but they still live in the Vale of Glamorgan. Providing a suitable habitat in your wildlife area is therefore really important.



Great crested newts need both land and water. Small to medium ponds with lots of plants are essential for breeding and for laying their eggs in. Clear areas in the pond are great too, as they'll keep the pond warm and give the males somewhere to display to the females. If you really want to design a pond for newts then it needs to be deeper than normal wildlife ponds (around 1m at one point). Newts need land habitat for hibernation during the winter and as a refuge during summer droughts – log piles, small woodlands and long grass are great for this.

### Other animals

Many other animals will soon find their way to your pond; flying and crawling in or being brought in on plants and animals feet - we don't promote moving water from other ponds as this can spread disease.



Great Crested Newt - David Kjaer

#### Great crested newts need:

- **Lots of vegetation.**
- **Sun-warmed water.**
- **Terrestrial habitat such as long grass, log piles and woodland.**



Richard Marks

### Frogs

Frogs and toads are also common in the Vale of Glamorgan and will turn up in your pond very quickly. They're great at controlling slugs and snails so make sure they have easy access in and out of the pond.



David Carrington

*Dragonflies need really clean ponds to breed in so you know you've got it right if you see them.*



Damselfly - Paul Roberts

### Water boatmen and pond skaters

Water boatmen and pond skaters are easy to tell apart: water boatmen hunt for prey under the water whereas pond skaters skate along the surface. Both sense vibrations and ripples in the water to locate prey – just like a spider on a web. Mainly, they both eat insects but boatmen sometimes even tackle tadpoles and small fish.

# Dragonflies

Dragonfly is the name for a group of insects normally divided into true dragonflies and damselflies. They can be told apart by watching them once they've landed: damselflies sit with their wings held together above their bodies; dragonflies hold them open. Dragonflies spend most of their lives as nymphs in ponds and lakes before emerging as the flying adult to find a mate.



Richard Smith



Paul Roberts



## SAFETY

Safety is of the utmost importance when considering a pond in a public space or if children are nearby – make sure you carry out a risk assessment first

- Grow plants in wide, shallow margins.
- Don't let the pond cover over completely with duckweed as it can look like flat ground.
- You may need a fence to surround it or you could cover it with a wire grid.

## GENERAL TIPS

- Decide what you want to attract to your pond before you start to build it.
- Take care positioning your pond – a partly shaded location is best.
- Make sure there is a good variation in depth – shallow areas around the margin and at least 50cm deep at one point.
- Carry out work in autumn to prevent disturbance to animals.
- Choose plants carefully and try not to use non-native species.
- If you already have a pond that you want to work on then contact the Council for advice on great crested newts.

## Fairy shrimp

Fairy shrimp are very rare, translucent freshwater shrimps that occur in the Vale. They live in temporary ponds, puddles and even tractor ruts. To encourage fairy shrimp, dig a shallow scrape or pool which will dry up sometimes

These leaflets are produced by

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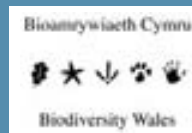
**Countryside Council for Wales (CCW)**  
 Government's adviser on sustaining natural beauty, wildlife and outdoor enjoyment in Wales. The national wildlife conservation authority  
 Tel: 02920 772400



**The Welsh Assembly Government**  
 A devolved government for Wales. Responsible for health, education, economic development, culture, transport and the environment.  
 Tel: 0845 010 5500



**Biodiversity and Sustainability in the Vale**



**Wales Biodiversity Partnership (WBP)**  
 WBP brings together organisations involved in biodiversity conservation in Wales and provides advice  
 Tel: 01248 385743



**British Herpetological Society**  
 Promoting the conservation and study of all reptiles and amphibians  
[www.thebhs.org](http://www.thebhs.org)



**FloraLocale**  
 Make space for British wild plants (registered charity no. 1071212)  
[www.floralocale.org](http://www.floralocale.org)



**FrogLife**  
 Working to support and promote conservation; providing information, education and training to a wide range of people (registered charity no. 1093372)  
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