

A pond can be described as a small body of water between one square metre and two hectares in area which holds water for at least four months of the year. There is no such thing as a perfect wildlife pond because different ponds will support different communities of plants and animals.

## What is a pond?

Riped water has replaced most ponds for watering livestock. abstraction, or by in-filling to improve farm efficiency. a result of land drainage, lowering of the water table by development for housing and roads. Others have gone as an estimated 75% (1.3 million). Many ponds have been lost to development for housing and roads. Others have gone as a result of land drainage, lowering of the water table by abstraction, or by in-filling to improve farm efficiency.

## Pond losses

Since 1880 the number of ponds in Britain has declined by an estimated 75% (1.3 million). Many ponds have been lost to development for housing and roads. Others have gone as a result of land drainage, lowering of the water table by abstraction, or by in-filling to improve farm efficiency. Riped water has replaced most ponds for watering livestock. Since 1880 when pond numbers were at their peak. activity ceased around 1840 when pond numbers were at their peak. industry, and mill ponds to power water mills. Most of this created for farm animals. Larger 'hammer' ponds were mining and marling, while others were created as drinking ponds for farm animals. Larger 'hammer' ponds were developed as by-products of past human activity, such as in the South East of England. Ponds are an important element of the landscape and its wildlife. Many have been lost to development for housing and roads. Others have gone as a result of land drainage, lowering of the water table by abstraction, or by in-filling to improve farm efficiency.

**This leaflet aims to raise awareness of the value of ponds in the Weald. It seeks to dispel some popular myths about ponds, and shows how to manage them for the benefit of wildlife. This will hopefully encourage a new enthusiasm for pond management in the area.**

## Weald ponds

# Ponds in the Weald

of Kent, Sussex and Surrey

A practical guide to the care of an outstanding feature and its unique wildlife

Including poster

A hammer pond at Bucks Head near St Leonards Forest, West Sussex



Hammer dragonflies are frequently found near wooded ponds and may use submerged rotting wood as egg laying sites



## What pond type do I own ?

### Ponds on farms – well managed ponds can provide an emergency supply of water for livestock and fire control. They look attractive and may add financial value to the land-holding. Some ponds may also help to control flooding by holding water.

### Ponds in semi-natural areas (meadows, woodlands etc) are more valuable – the surrounding habitats complement the pond habitat, and create a natural regime with unpolluted water.

### Seasonal ponds are those which dry out regularly (i.e. every summer) but remain as significant landscape features. They are maintained by grazing or high winter water levels that support scrub and tree growth. They may look dull, but can support special plants and animals including birds and breeding frogs and toads.

### Ponds in old woodlands which have a deep layer of leaf litter and which dry out, may provide a specialised habitat for

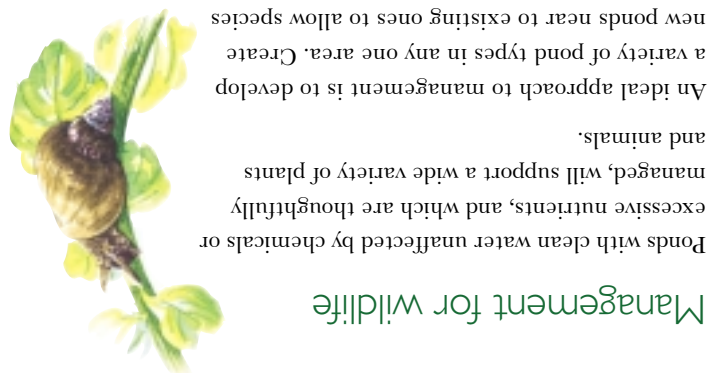
### Hammer ponds were created by damming streams to provide a controlled water supply to power bellows or hammers for the medieval iron industry. Many of these large ponds are now fringed with woodland and provide important habitat for otters.

### Heathland ponds – often support specialised plants and animals. They usually have very low nutrient levels, are generally acidic and can be particularly vulnerable to fertiliser enrichment.

### New ponds can be quickly colonised by a wide range of attractive wildlife, and help to compensate for the loss of other ponds in the landscape.

### Natural succession Most ponds, as part of a natural process, gradually fill with vegetation and sediment to become wet marsh, hollows and eventually dry land. All stages are important, and some of the best ponds for wildlife show a number of these different phases.

## Management for wildlife



### What is living there already? Do I need to manage? A survey of the pond's wildlife will help to answer this question. If management is recommended, it will help guide the work done. You can discover quite a lot yourself, simply by observing the pond throughout the year. Monitor the water levels, together with any plants and animals that visit the pond. If you are unsure, seek further advice; the High Weald AONB Unit can supply a list of contacts.

### Surveys are often needed before precise guidance AONB Unit can supply a list of contacts.

### When do I manage? The best time of year to manage a pond is during late summer and autumn\*.

### Sensitive dredging, de-silting and vegetation removal causes damage as well as bringing benefits. To minimise damage, work should be carried out in the autumn.

### This avoids the breeding periods of birds, amphibians and many invertebrates. Invertebrates are commonly abundant as tiny individuals during autumn and their population can cope with some losses. Water levels are low and ground conditions dry. Nutrients that are locked up in plants' growth can be removed.

## What about the water supply?

Make sure that any work you do in or around a pond will not affect your water supply. Many existing ponds are fed by a spring which is either at the base of the pond or in the surrounding land. Look for wet flushes in the surrounding land, and avoid disturbing them. You should find out how water is retained in the pond before you carry out any major dredging works. Accidentally damaging the base may increase the complexity and cost of your project dramatically.

## How do I carry out the work ?

For a small project, it may be possible, and certainly cheaper, to carry out the work by hand, particularly if you have enough eager volunteers. For larger-scale works, you will need to use a digger with a reach of about 15 metres. If doing the work yourself, you can hire the machinery. Alternatively, find a specialist contractor with experience in pond management and construction. Always use a pond specialist as they are likely to carry out the work more sensitively.

## Do I need permission to restore or maintain a pond?

The Environment Act 1995 restricts work on, or next to, watercourses and floodplains. Where structural alterations are planned near these areas, the Environment Agency should be contacted in advance. Simple dredging and maintenance of a pond will not normally require planning permission. But if you are carrying out any structural changes or creating new ponds, you should check with the local planning authority.



Some coppicing and the making out of material helped to restore this pond's landscape and wildlife value. This work was carried out by local volunteers for the landowner.

## Where can I put the spoil?

Digging a new pond, or restoring an existing one, can create a large volume of spoil. You will need to decide how to dispose of it in advance. If moving spoil away from the immediate pond area, you will need to speak to the Environment Agency to make sure it is disposed of legally, as you may need a licence (Environment Act 1995). **Do not place spoil in wet hollows, around trees or on other areas of wildlife interest.**

## What about planting?

**Pond plants** Following management, it is best to allow natural colonisation. If you feel the need to introduce species, use stock from local ponds (with the landowner's permission) but not from ponds that contain any of the problem species listed. For the same reason, take great care when buying plants. A tiny fragment of one of these plants can colonise the whole pond.

**Problem plants** It is perfectly natural for certain species to bloom and become dominant when conditions are particularly suitable. Algae and duckweed are able to grow very quickly with optimum levels of sunlight and nutrients. In the long term, the only way to resolve the issue is to address the root cause of the problem – usually by reducing the nutrient levels in the water, or increasing the shade.

A more serious problem is the introduction of non-native species. When taken out of their natural systems, they out-compete our native plants and can smother a pond or riverbank. Although now found in the wild and in garden centres, every effort should be made to avoid spreading non-native species. The plants listed on this page are likely to cause you future problems and it is illegal to release most of them into the wild.

## Ponds in the Weald



The Environment Agency's vision for the future is "a healthy, rich and diverse environment in England and Wales for present and future generations."

We plan to implement this with an integrated, holistic and, above all, sustainable approach to the protection and enhancement of the natural environment. This includes promoting the conservation of wild animals and plants that live in or near water.

**0800 80 70 60** – 24 hour free emergency telephone line.

Ponds are a distinctive feature of the High Weald – a valued Area of Outstanding Natural Beauty (AONB) in the rural heart of South East England. The High Weald is a historic countryside of rolling hills draped by small, irregularly shaped fields, abundant woods and hedges, scattered farmsteads and sunken lanes.



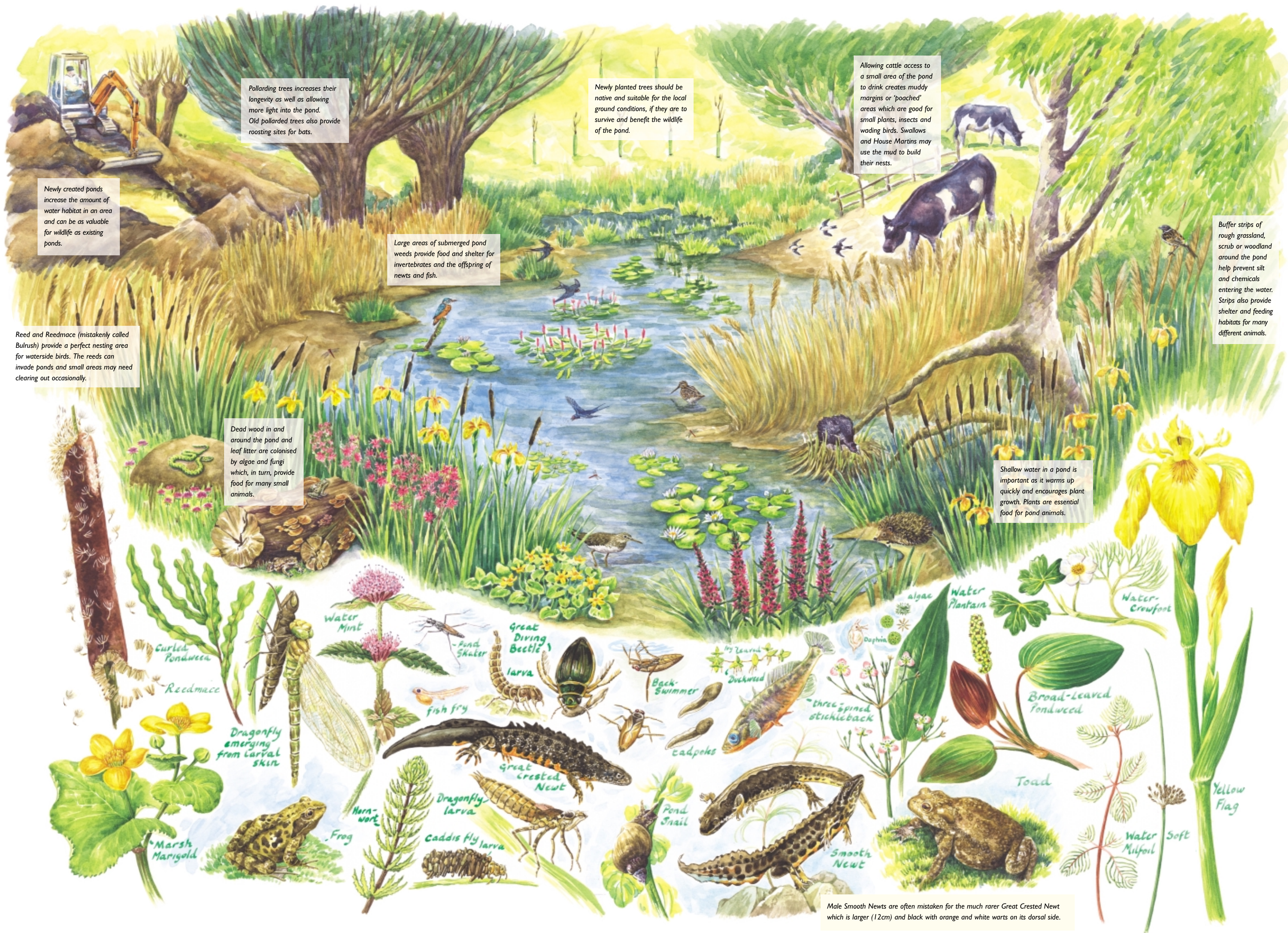
Ponds are a source of endless enjoyment, interest and inspiration to people. This six-foot quilt was the creation of children at St. Peter's School in Cowfold, West Sussex.



## Further information

High Weald AONB Unit, Corner Farm, Hastings Road, Flimwell, East Sussex, TN5 7PR  
Tel: 01580 879500  
Email: info@highweald.org  
Web: www.highweald.org





## Management for wildlife

The pond illustration shows many features of different ponds. A pond may only have one or two of these features and still be good for wildlife.

## General advice

- Maintain or create shallow, sloping edges to provide habitat variety (vegetation zones).
- Maintain existing management of seasonal ponds.
- Dig a silt trap (as an alternative to regular dredging) where inflowing water is the problem.
- Allow a high percentage of native water-plant cover to develop.
- Only manage one part of the pond at any time to allow species to re-colonise.
- Remember: ditches should be considered as part of the overall habitat and should be managed in a similar way.

## Hints on tree management

- Aim for a balance of shaded and open areas of water.
- Reduce leaf litter build-up by selective coppicing and pollarding of surrounding trees.
- Create marginal glades by removing a few trees from the south side of a densely shaded pond.
- Leaf litter, logs and other debris should not all be removed.
- If you plant scrub / trees, consider the mature canopy: so try not to plant too close to the pond.
- Avoid working during the bird nesting season from March to July (Wildlife and Countryside Act 1981).
- Remember, you may need a felling licence from the Forestry Authority for larger volumes of timber.

## Preventing pollution

- Avoid links to ditches and streams that drain intensively managed land, as they may contain pesticides and nutrients.
- Avoid using fertilisers, manure and pesticides / herbicides\* close to the pond and in the catchment area.
- Use spray drift controlling devices.
- Develop a buffer zone, such as rank grassland, hedges and scrub as barriers to sprayed chemicals.
- Avoid silt build-up by creating silt traps and reed beds.

\* Written consent from the Environment Agency is required to authorise the use of substances 'on or near water' under DEFRA guidelines.

## Marshy areas are great!

Marshy areas often flood in winter and spring and dry out in the summer. These areas can be very rich habitats for plants, invertebrates and birds. They may occur as a pond edge habitat or as complete areas in their own right through seepage and springs. Marshy sites are an uncommon and fragmented habitat which should be a priority for management.

It is important to consider the value of marshy areas when planning pond management or indeed pond creation. It is all too easy to dig them out to create a pond but in the process destroy an important wildlife habitat.

**Fiction & Fact**

- Fiction:** Water levels should be stable
- Fact:** Fluctuating water levels provide habitat variety for both water and land species
- Fiction:** Livestock should not have access to ponds
- Fact:** Low intensity grazing provides good short plant habitat and valuable muddy edges
- Fiction:** Ponds are isolated habitats
- Fact:** Pond wildlife is linked with catchment water quality and surrounding habitat

- Fiction:** Drying out is bad for the pond's wildlife
- Fact:** Seasonal ponds can support specialised populations, including frogs and newts
- Fiction:** Ponds should be at least two metres deep
- Fact:** Areas less than two feet deep have the greatest wildlife value
- Fiction:** The bigger the better
- Fact:** Ponds can be very small and support a wide variety of life

- Fiction:** Ponds should not be shaded by trees
- Fact:** Some wildlife depends on woodland ponds and shade can also provide variety
- Fiction:** Dredging is required to stop choking by vegetation
- Fact:** Vegetation is the basis of pond life. 100% cover can be excellent (but not algae, duckweed or problem plants)