

## 5. Why look after them?

- Natural Capital – natural features and habitats are a valuable part of any farm both for their own sake and as natural resources for ourselves.
- Wildlife Habitat – ponds support a variety of wildlife including birds, small mammals and bats.
- Provide a habitat for a huge number of beneficial insects which contribute to a healthy farming environment by providing pollinators and natural pest control.

## 6. How to conserve and manage them (What to do and what not to do)

### Yes:

- Carry out management of surrounding trees e.g. re-pollarding, coppicing trees to reduce shade (but check for bat roosts)
- Remove sources of pollution e.g. overstocking, yard drainage etc

### Yes BUT with advice:

- Removal of pond vegetation to reduce chocking and create open water
- Careful removal of pond silt by digging
- Limit livestock and/or dog access (e.g. fencing sections)

### No

- digging of pond to deepen or change its shape
- Ploughing/cultivation or application of fertilisers within 20 metres
- High stocking rates within 5 metres.

### Get in Touch

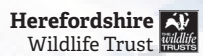
It's always a good idea to seek advice on how best to manage and protect ponds. If you would like more information please contact the following people who will be more than happy to offer you advice:

#### Herefordshire Wildlife Trust

For specific Ice Age Pond queries – [d.hutton@herefordshirewt.co.uk](mailto:d.hutton@herefordshirewt.co.uk) / 01432 356872  
For general farming and wildlife advice – [enquiries@herefordshirewt.co.uk](mailto:enquiries@herefordshirewt.co.uk) / 01432 356872  
[www.herefordshirewt.org/iceageponds](http://www.herefordshirewt.org/iceageponds)

**Herefordshire & Worcestershire Earth Heritage Trust** – for advice on geological features  
[www.earthheritagetrust.org/ice-age-ponds](http://www.earthheritagetrust.org/ice-age-ponds)  
[eht@worc.ac.uk](mailto:eht@worc.ac.uk) / 01905 855184

**Herefordshire Amphibian and Reptile Team** - for advice on reptiles and amphibians  
[herefordhart.org.uk](http://herefordhart.org.uk)



# A brief guide to Ice Age Ponds in Herefordshire and how to look after them



Examples of Ice Age Ponds in Herefordshire



*Graphoderus cinereus*, a rare water beetle,



Will Watson



Will Watson

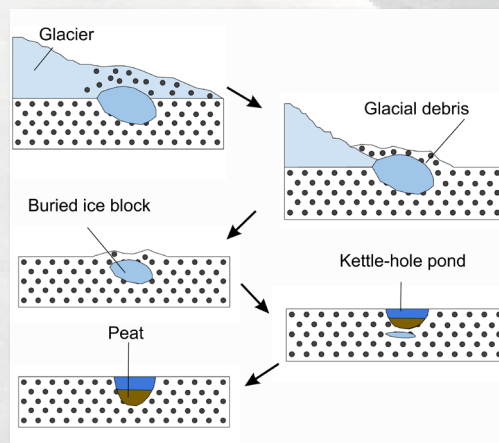
Tubular water-dropwort. In Herefordshire it is only found in Ice Age Ponds.

## 1. What makes our Ice Age Ponds important?

- **They represent remnants of an ecological and geological ecosystem** which has survived for 15-20,000 years. They preserve plant material and animal remains which are unique time capsules of that period.
- **They are rare** - It has been estimated that probably less than 2% of lowland ponds are natural and probably only 1% of these originated during the last ice age. However, in Herefordshire this is a much higher figure (some say as much as 25%). They are therefore a nationally important resource.
- **They are good for wildlife**, which include rare protected species such as the Medicinal Leech *Hirudo medicinalis*. They host a number of rare invertebrates such as water beetle species, *Graphoderus cinereus* (see photo on front cover) and host a number of other plant and insect species which appear to be restricted to Ice Age Ponds. The high number of ponds is essential for the breeding of frogs, toads and newts and a great food and water source for birds and animals.
- **Ice Age Pond density in Herefordshire is very high.** In some areas of Herefordshire there are a staggering 30 Ice Age ponds per square kilometre. This number and density of ponds adds to their wildlife value (see map 1. showing the distribution of hummocky moraine in Herefordshire.)
- **They are at risk.** Historical maps reveal that many ponds have been filled in or ploughed over and our surveys show local pollution and too much shading by trees and shrubs.

## 2. How were they formed?

Near the end of the last Ice Age when mammoth roamed the countryside, a retreating glacier created a distinctive landform called 'hummocky moraine' across north west Herefordshire. As the ice retreated it left huge chunks of glacial ice embedded in the moraine. Many of these depressions filled with water to create 'kettle hole ponds' and, remarkably, some still exist today, an incredible legacy that has survived for over 20,000 years.



## 3. Where are they?

MAP 1 DISTRIBUTION OF HUMMOCKY MORAINE

The shaded areas are where Ice Age ponds are found.



## 4. How to identify them

- They are on hummocky moraine geology (iGeology app shows detail)
- They usually sit in a 'closed depression' in the landscape
- There are usually no streams in or out (although they may have been modified).
- Sometimes they will only hold water for a few months of the year
- Seek advice from The Herefordshire & Worcestershire Earth Heritage Trust or Herefordshire Wildlife Trust