



## Great crested newt

**Habitat:** Prefers ponds with areas of still, open water and abundant aquatic and marginal vegetation. The minimum requirement for a population is 3 or more suitable ponds per km<sup>2</sup>. Ponds must have areas of rough grass for feeding and log piles or scrub thickets for cover. Adults over-winter in ponds or under piles of stones or logs and can live for several years.



**Food:** Adults feed on other amphibians, insects and can be cannibalistic. Young feed on insects.

**Breeding:** Breeds from March to late July. Eggs laid on floating and submerged vegetation. Larvae remain in pond until late September.  
Ponds must be free of fish.

**Importance:** UK BAP Species, and local BAP species.

### **Beneficial management:**

- ✓ The shallow scrape is proving successful for breeding newts. Maintain Reserve ponds as breeding sites. Do not introduce fish.
- ✓ Piles of logs are being left for cover and hibernation sites. In addition, leave some grass toppings in piles to rot down slowly.
- ✓ The newts will be finding plenty of slugs and small invertebrates in the margin of rough grass/scrub: this is important feeding habitat.
- ✓ De-siltation of the large pool will provide the opportunity to re-profile the banks: gently sloping edges, or shallow under-water step will create good margins for aquatic plants where newts can lay eggs.

## Lesser horseshoe bat

**Habitat:** Feeds over deciduous woodland, scrub, parkland, wetland and permanent pasture.

**Roosts:** Summer - Roofs of larger houses and stable blocks. Winter - caves, mines, tunnels and cellars.



**Food:** Flies (mainly midges), small moths, caddis flies, lacewings, beetles, small wasps and spiders.

**Breeding:** Maternity colonies are established in late spring, one young is born between mid-June to mid-July. Weaned at 6 weeks.

**Importance:** Local BAP Species. In decline, but an important winter roost is nearby the Reserve.

### Beneficial management:

- ✓ The damp sheltered conditions on the Reserve are excellent for small flying insects: midges, mosquitoes, moths and many others are providing an abundant food supply.
- ✓ The open spaces within the Reserve are important flight paths, where the bats will hunt close to vegetation. Keep these paths/flight paths open by management of shrubs, hedges and trees.
- ✓ Consider putting up some 'bat boxes'. Although Lesser Horseshoe bats will not use these, other bats which will also be hunting over this insect-rich habitat may do.

## Dragonfly & Damselfly species

**Habitat:** A wide range of aquatic features including pools, fast flowing streams, canals, ponds and wetlands.

**Food:** Adults catch smaller insects in flight. Larvae are voracious feeders of aquatic invertebrates and small fish.

**Breeding:** Eggs are inserted into floating plant material and marginal vegetation. Larvae are aquatic until they emerge as adults.



**Importance:** Not threatened, but an indicator of good water quality and riverine habitat.

### Beneficial management:

- ✓ Maintain value of Reserve ponds by ensuring abundant submerged and marginal vegetation is allowed to develop. These rely on good light levels, so surrounding trees and shrubs should be managed from time to time.
- ✓ Ensure the margin of vegetation around the pond is managed, to retain plenty of open water.
- ✓ Good shallow pond edges will provide conditions to suit aquatic marginal and floating vegetation. If excavating silt to restore the larger pond, re-profile the edges to create gently sloping edges to deeper water.
- ✓ Retain deep water, as well as shallows, when carrying out restoration of the larger pond.
- ✓ Avoid introducing fish as they will predate on the larvae.
- ✓ Grassland and wooded areas adjacent to ponds and watercourses are valuable feeding areas. Aim to keep plenty of variety of structure of vegetation in the Reserve, with rotational coppicing of shrubs, and rotation cutting back of shrubs and bramble, and topping of grassy areas.

## Ancient woodland site

**Description:** The variety of composition and structure are key to the ecological importance of this habitat and ancient woodlands are an important and irreplaceable part of the landscape.



**Associated BAP priority species:** Bats, Bluebells, Dead wood and specialist invertebrates, Badgers, Hedgehogs, numerous Butterflies including rare Wood White and potentially Fritillaries.

**Importance:** In the last 50 years, 7% of ancient woodland has been cleared and a further 38% has been degraded through the planting of introduced species. National and local BAP habitat.

### Beneficial management:

- ✓ The Reserve is a fragment of woodland, which has many 'indicator-species' for ancient semi-natural woodland, such as bluebells. Diversity of woodland habitat is provided by wet woodland, alder carr. Saplings, young trees and mature trees, many of which have been managed by the historic management of coppicing to produce a crop of timber, provide variety of structure and age class. Continuation of this management by coppicing, and additional management of trees by some thinning of saplings in order to retain as much structural diversity as possible, providing open spaces and allowing light to the 'woodland floor', would help conserve the conservation value.
- ✓ Decaying wood is an important part of the recycling of nutrients in woodland, and is a very important habitat for wood-boring insects and organisms of decay such as many invertebrates and fungi. Retain dead wood in trees, where it is safe to do so, and stack up habitat piles of logs to break down slowly, and where they will provide homes for hibernating mammals and amphibians, as well as species associated with decaying wood.

**LANDWISE**  
**Biodiversity Action Plan**  
**COLWALL NATURE RESERVE, WORCS.**

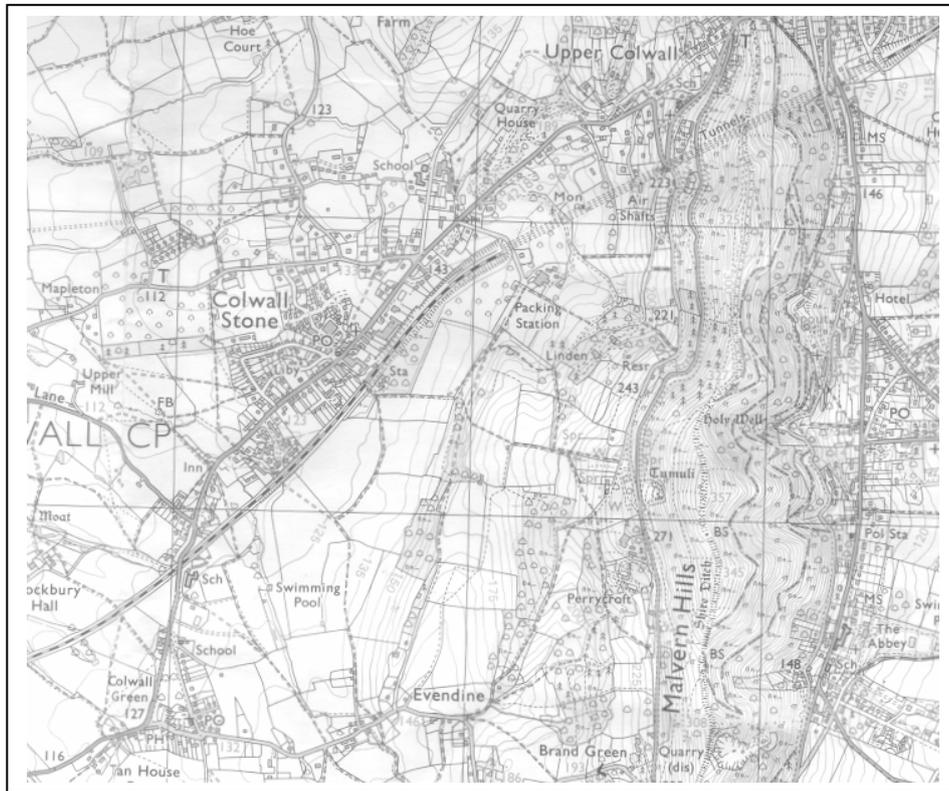


<b>Areas of High Biodiversity</b>	
Hedgerows and shrubs	Ancient semi-natural woodland
Wet woodland, alder carr	Wet grassland, and unimproved grassland
Watercourse, ponds, scrapes and wet margins	Ancient pollards

<b>Key Species that may also benefit from the Action plan</b>		
<b>National Importance</b>	<b>Regional/Local Importance</b>	
<b>AMPHIBIAN</b>	Common frog	
	Common toad	
	Palmate newt	
<b>BIRD</b>	Bullfinch	
	Fieldfare	
	Great spotted woodpecker	
	Kingfisher	
	Little owl	
	Reed bunting	
	Snipe	
	Song thrush	
	Swallow	
	Tawny Owl	
	Tree sparrow	
	Turtle dove	
<b>BUTTERFLY</b>	Butterflies of woodlands	
	Holly blue	
	Meadow brown	
	Ringlet	
<b>INVERTEBRATES</b>	Broad bodied chaser	
	Bumble bee spp.	
<b>MAMMAL</b>	Daubenton's bat	
	Harvest mouse	
	Natterer's bat	
	Noctule bat	
	Pipistrelle bat	
	Polecat	
<b>PLANT</b>	Bluebell	
	Cowslip	
<b>REPTILE</b>	Grass snake	
	Slow-worm	



**LANDWISE REPORT**  
implementing the  
**Biodiversity Action Plan**  
Colwall Nature Reserve



Developed with grant aid contribution from  
English Nature

## Summary

- ❑ The Reserve is of high wildlife value, and also a public amenity of potentially high value. Its central location, and yet secluded position, provide a unique place, where wildlife is rich and diverse, and can be peacefully enjoyed.
- ❑ Without management, the Reserve's habitat would change. Its great value is provided by the range of conditions found there, which attract a range of species. Management interrupts the 'successional stages', whereby land turns to woodland. The Reserve's open spaces are its richest areas.
- ❑ The Reserve provides an educational opportunity for all, adults and children alike. This report highlights some of the important species, and aims to encourage interest in them.

## 1 Introduction

### 1.1 The Reserve

The Reserve is located by the Railway Station in the centre of Colwall village. It is managed by the Parish Council. Volunteers are relied upon to manage the Reserve.

### 1.2 Landscape and Habitats

The Reserve lies in the Malvern Hills Area of Outstanding Natural Beauty. It has a variety of valuable habitats, which are small in area, but important because they make up a mosaic of semi-natural conditions which are in close proximity.

Many species need many types of habitat, for feeding and living through the year. The Reserve has native broadleaved trees and other plants associated with ancient woodland including alder carr, pond and scrape, rough open areas of grassland, mature trees including ancient willow pollards, old hedgerow, fruit trees, small brook, and bramble and scrub.

### 1.3 Biodiversity on the Reserve

Biodiversity or "*the conservation of the variety of life*" was introduced at the Rio Earth Summit in 1992. National and local Biodiversity Action Plans have highlighted important habitats and declining species that should be assisted wherever possible. The Reserve can make its own contribution towards these biodiversity targets.

## 2 Objectives

### 2.1 Long Term Objectives

- ❑ To encourage enjoyment of, and enthusiasm for the Reserve, which will inspire interest in contributing to its management by local people.
- ❑ To have encouraged important species which are included on the national and local Biodiversity Action Plan lists.

### 2.2 Shorter Term Objectives

- ❑ To rotationally manage the tremendous annual growth of vegetation, with work taking place in autumn, to enable people to access the Reserve, and to allow light in and provision of open spaces.
- ❑ To look at grant opportunities to help fund work.

### 3 Grassland

There is little open grassland on the Reserve, so what is present is valuable. Small mammals and insects will benefit most from these areas, which receive sunlight, and provide warm conditions.

Where the light is good on the south-west side of the reserve, willowherb has grown tall and strong. This is a good source of nectar and pollen.

Recommendations:

- Keep an eye on the willowherby area: sooner or later bramble will colonise the patch, and the willowherb is more useful here.
- On the path side, cut back the grass once or more in summer, to retain some shorter grass.
- Against the topped strip, leave a strip to top just once a year, late in summer. This will become rough and more tussocky to provide a different grassland habitat.

### 4 Woodland

Ancient woodland is particularly important because its long history will have allowed many different species of flora and fauna to colonise. This important fragment of ancient woodland has variety of character, with wet areas supporting alders. Some alders of all ages, including old coppice stools can be found.

#### 4.1 Open areas

Paths and open spaces in woodland are warm and sheltered, and the light permits grasses and other grassland plants to develop. Many insects, including butterflies use this part of woodland, and bats and insectivorous birds will feed there.



#### 4.2 Dead Wood

Dead wood, either standing or fallen is an important wildlife habitat, of value to specialist invertebrates and fungi as well as providing feeding and nesting opportunities for higher mammals. Dead wood should be retained where ever possible, try to avoid the temptation to be 'over tidy'.

## 5 Hedges and shrubs

Hedges and individual shrubs will provide cover and shelter for birds, insects and smaller mammals, which benefit from the structure of the hedge itself, its foliage, fruits and flowers and the microclimate that it creates. Hedgerows can also act as corridors between isolated habitats, allowing the regular movement of mobile species or the more gradual migration or dispersal of others.

The hedge has been laid recently.

Recommendations:

- The goat/grey willow in the hedge is growing up very rapidly. Trim the height off these stems, to retain a thicker, denser hedge, and to continue to allow light in to the grassy area.

## 6 Scrub

Scrub has become a fairly uncommon habitat. Bramble and low woody growth, especially where it has high light levels enabling it to flower, will provide good bird and mammal nesting habitat, and a rich food source for berry eaters, and nectaring species such as butterflies and bumblebees.

**Recommendations:**

- Try to keep scrub to its existing areas and prevent its encroachment on open areas.
- Trees eventually colonise the scrub, and then shade it out: try to manage this process to retain scrub without shade.

## 7 Pollards and Alders

The Reserve has the most magnificent pollard willows. These will have been pollarded time and time again, over several centuries, in order to produce willow stems, which had a wide range of uses, from basket making (mostly osiers), to heathering newly laid hedges. They are a valuable source of decaying wood in the living tree. One tree has recently been re-pollarded.

Alders comprising of several stems have been coppiced in the past. Again, this was a way of cropping the tree, in most cases to produce wood for clogg-making by travelling craftsmen, in the past.

Both these forms of tree management enable a tree to live to many times its normal length of life.

**Recommendations:**

- Continue the cycle of pollarding, and of coppicing. These trees will otherwise deteriorate and split and collapse.

## 8 Ponds and Brook

The small brook feeds the larger pond, and the second, smaller pond or scrape drains wetter areas in the reserve. Together these wetland features provide considerable wildlife interest.

The large pond has sedges and rushes, yellow flag iris and 'bulrush', or *Typha latifolia*. The plant known as bulrush is very invasive in ponds of this size. Water depth over 1 metre, restricted light levels, and physical management will restrict its spread, otherwise it will rapidly replace water and fill the pond basin with its large rooting structures.

Newts, which feed on invertebrates, and dragonfly and damselfly populations indicate a healthy water system. Aquatic plants, including algae, provide the basis of the food chain, and are essential to a healthy pond ecosystem.

A wide range of marginal, floating, and submerged plants will boost the number and abundance of species found in and around the ponds. Good light levels are important if pond plants are to thrive, and the physical features, such as depth and slope of banks will determine the spread and abundance of plant life.

Surrounding areas play an important part in contributing to the healthy pondlife too, as many species breed in the pond, but spend most of their life away from the pond.

### **Recommendations:**

- ❑ A varied shoreline with spits and bays attracts more wildlife, and gently shelving edges from the banks in to the water allow easy access for young waterfowl and amphibians and encourage marginal vegetation. If carrying out work to larger pool, try to incorporate these design features.
- ❑ The shallow pond near to the pond is excellent. Shallow scrapes infill with leaf litter rapidly, and then dry up, so watch carefully, and manage regularly, and plan work for September/October when young newts will have lungs and should have left the water.
- ❑ Manage surrounding trees, to control shading.

## 9 Fruit Trees

Pershire and Yellow Plum trees are a feature of the Reserve, and a remnant of what is possibly a more common locally distinctive landscape feature.

### Recommendations:

- These trees need good light levels, and more space, and provide a priority for some clearance of other shading vegetation.
- Cuttings could be grafted onto *Prunus* rootstock, to continue these varieties. The successful suckers are unlikely to be the same variety as the mature trees.

## 10 Grant Aid

The Malvern Hills AONB office has been helping in the search for some funding, and they have mentioned the Landscape Enhancement Scheme provides small payments towards some of the work. Keep in touch with James Bisset, at Herefordshire Council, and, with good planning ahead, this may be helpful.

## 11 Further Help

Herefordshire Amphibians and Reptiles Group may be interested in carrying out a survey for newts. Contact Nigel Hand, 01531 636033.

Peter Garner is very interested in surveying for dragonflies and damselflies. Contact Peter Garner, 01684 564957.

- Your local Forestry Authority Private Woodlands Officer is Nick Smith, telephone 01594 810983.
- Julian Abrahams, reedbeds - 01886 884721.
- Rick Hudson (Cress Water), reedbeds, - 01905 452452.
- Environment Agency, Monmouth - 01600 772245.
- Organic Helpline - 0117 922 7707.
- Contractor with Weed-Wipe: Henry Rudge, 01432 840230, or PMD, 01242 602476, or Bill Davies, 01568 750320.
- LEAF (Linking Environment and Farming) encourage Integrated Crop Management. They can provide the LEAF Audit, which is designed to help you assess your farm practices and performance against the standards of Integrated Crop Management.
- Contact Defra at Whittington Road, Worcester, (phone 01905 763355) and ask them to send you a copy of the 'Codes of Good Agricultural Practice for the Protection of Water'.
- Butterfly Society: Mr A. Nichols, 01432 275834
- Bat Group, Worcs: Rebecca Collins, 07597 566319.
- English Nature, 01531 638500
- RSPB, central office: 01295 253330.
- Hawk and owl trust: Rob Lewis, 01684 297441.
- Herefordshire Deer Management Society: Dave Hunter, 01684 833665.
- Independent archaeological adviser: Huw Sherlock, Archenfield Archaeology, 01432 830757.
- Farm Business Advice Service: 01952 208221
- Native wildflower and grass seed: Yellow Flag Wildflowers, Plock Court, Norfolk, Longford, Gloucester GL2 9DW, Tel: 01553 829028