



On the Wing Project

Gloucestershire Wildlife Trust's On the Wing project aimed to restore habitat for winged species on three local reserves: Whelford Pools, Roundhouse Lake and Bryworth Lane. The project aimed to improve the resilience of priority flying species by undertaking conservation activities to improve and create suitable habitat to act as safe refuges throughout the Cotswold Water Park.

The project improved the following habitats for priority winged species:

- Standing Open Water to provide desirable habitat for charophytes and emergent vegetation to maintain open flight-lines for overwintering waterfowl and nesting habitat for breeding waterbirds, including Red List species the Gadwall (*Anas strepera*) and Pochard (*Aythya farina*); maintain a native suite of submergent vegetation; and enhance opportunities for marginal plants, so crucial for emerging dragonfly and damselfly larvae;
- Reedbeds so that there will be a range of habitats available for the reed bunting and cuckoos, forage habitat and refugia for dragonfly nymphs and roosting habitat for adult dragonflies;
- Ponds to increase nesting/roosting sites for birds and bats and provide suitable basking areas for butterflies and dragonflies including the Downy Emerald dragonfly, *Cordulia aenea*;
- Scrub to benefit song thrush, nightingale, grasshopper warbler and lesser redpoll;
- Grassland to benefit the small heath butterfly (*Coenonympha pamphilus*);
- Woodland by creating glades to benefit bats for foraging and butterflies for basking areas and increased nectar sources; and
- Tern Rafts to benefit nesting terns and habitat for the red eyed damselfly and bird species on older tern rafts.

The wonderful project to revitalise our nature reserves in the Cotswold Water Park was kindly funded by Biffa Award, the HDH Wills 1965 Charitable Trust, the Alan Evans Memorial Fund, the Linley Wrightman Shaw Foundation and the Roger Vere Foundation.



Gloucestershire Wildlife Trust is extremely grateful to our funders for supporting our work at our Cotswold Water Park nature reserves through our On the Wing project. With their help we have been able to restore habitat for winged species on three local reserves: Whelford Pools, Roundhouse Lake and Bryworth Lane.

The 'On the Wing Project' allowed us to buy tools for the 30 plus volunteers, which has enabled them to help us carry out much needed habitat restoration.

We have carried out the managing of woodland and scrub to enhance its value for various bird assemblages in particular breeding lowland scrub birds and breeding birds on lowland open waters and their margins. Trust staff and volunteers have been cutting back scrub and thinning the woodland. This will improve the structure of the scrub and woodland providing a more varied habitat for a greater range of bird species.

The reserves GWT manages are part of the wider SSSI, the Cotswold Water Park, which is being re-designated by Natural England for its breeding bird assemblages, this means a greater focus on the bird species we will manage for as part of this project. To encourage birds that breed in open waters the scrub cutting we have carried out on the water and lake edges will be very important to provide the open flight paths. The clearing of woodland edge will also make space for bats to forage over the water such as is the habit of Daubenton's and soprano pipistrelle bats. Sunlight falling on the water will favour species of flying invertebrate such as dragon and damselflies.

Scrub Cutting

At Whelford Pools scrub has been cleared from a bund of land between the two lakes. This benefits overwintering birds on the reserve by giving them a clear flight path between both lakes at Whelford Pools improving their access to all the open water.





Whelford Pools before scrub clearance works



Whelford Pools after scrub clearance works

Scrub cutting at Roundhouse Lake has been carried out on the lake side to reduce the leaf drop into the lake. Leaf drop increases the nutrients level in the lake which makes the habitat less viable for the rare aquatic stone wort plants to grow, as they require only a low nutrient level to thrive.





Roundhouse Lake before scrub cutting



Roundhouse Lake after scrub cutting



Pond creation

Earlier in the year the volunteers cleared an area of scrub at Bryworth Lane Nature Reserve, an old railway line that plays host to calcareous grassland that is a fantastic habitat for butterflies. The cleared scrub has made way for a new pond, supported by the 'On the Wing Project'. This pond will provide a fantastic habitat for damselflies, dragonflies and newts to name a few.



Location of the new Pond at Bryworth Lane Before



Completed pond at Bryworth Lane



Extension to Whelford Pools Pond

The On the Wing project has also allowed use to extend one of the existing ponds at Whelford Pools which before its extension did not hold water all year round, leaving frog and toad spawn high and dry. Since the extension the pond will now hold water all year round and be a brilliant habitat for midges that support our healthy population of soprano Pipistals and Daubrentons bats, as well as a fantastic habitat for amphibians.



Pond before extension



Pond after extension



Reed Bed Management

Work has also been carried out on a rotational cut of the reed beds at Whelford Pools; this will rejuvenate the existing reed beds and stop dead plant material building up and help to reduce scrub encroachment. Reed beds are a unique habitat for many types of birds and flying insects.



Cutting reed bed at Whelford Pools



Cutting and removing cut material from reed bed Whelford Pools



A new reed bed has been created at Roundhouse by transplanting plants from within the water park. This reed bed will create a brilliant habitat for nesting birds, and a great place for invertebrates to lay their eggs.



Planting out new reed to create a reed bed at Roundhouse Lake

Grassland management

Management of the grassland at Whelford Pools and Roundhouse Lake with the grass being cut and cuttings removed, was carried out by a group of avid volunteers at the end of the summer. The removal of the cut material will reduce the nutrient level build up in the soil allowing for a better diversity of flowering plants in the grassland which will benefit invertebrates.



Raking and removing grass cuttings from Roundhouse Lake



Solar Powered Pump Installation

To enable grazing of the grassland at Roundhouse in the future we have installed a new water trough, funded through our Countryside Stewardship agreement, with the help of the volunteers. The trough is filled from the lake by a solar powered water pump that was funded by the 'On the Wing' project. This facility will reduce the disturbance to dragonflies and damselflies laying their egg caused by livestock entering the lake to drink and will reduce the edge poaching of the lake side which causes damage to marginal plants.



Installation of water trough and solar powered pump

**We would like to thank our funders
for their support and valuable contribution to enable this project to go ahead**

