

Bat Activity Survey over millponds in South Lancashire

BATS COTTON ON!

At the height of the industrial revolution it was said that Lancashire clothed the world and cotton was king. Industry demanded vast amounts of water and mill ponds were built in their hundreds. Most of this industry has long gone, but a diversity of millponds remain.

OUR HERITAGE

Millponds are not only an obvious reminder of our industrial heritage, but have become remarkable refuges for wildlife. Mills needed a steady and controllable supply of large quantities of water, hence the construction of the millponds or lodges. This would have allowed some wildlife to hang on.

TOP WILDLIFE SITES

As industry declined, more wildlife would have moved into the deserted sites from the mixed, wildlife-rich farmland nearby. This ex-industrial land now contains some of our best wildlife sites, especially now that most former mixed farmland is either more intensively farmed, become monoculture grassland, or has been developed into housing, leaving less room for a diverse wildlife.

BAT HEAVEN

Taking full advantage of the facilities we have left behind are those most intriguing of mammals: bats. All British bats feed on insects, and where there is water and plenty of vegetation there are plenty of insects.

Bat heaven indeed!

CONSERVE BATS, CONSERVE HERITAGE

The South Lancashire Bat Group has carried out a series of surveys to find out just how valuable millponds, and other water bodies, are to bats. This information may help in slowing the loss of this heritage and wildlife resource.

LOBBYING

As described our surveys have demonstrated that it would be worthwhile lobbying to prevent any further loss of millponds and even restore lost ponds in a sensitive manner where there is no adverse ecological impact. It is of note that Ordnance Survey maps produced in 1851 show the presence of 40 millponds and numerous filter beds. To our knowledge only 2 sets of filter beds now exist, and only 29 ponds are left in the Kirklees Valley.

Publicity gained from the present project, funded by the Heritage Lottery Fund, aims to involve the public in bat surveys over water bodies, which will help us raise awareness and encourage us to achieve this aim.

Bury MBC are considering Local Nature Reserve status for a large part of the Kirklees Valley. The Bat Group needs to continue to be involved in this process to prevent any undue 'improvements' and 'tidying', and push for the conservation, restoration and careful management of these important mill lodges.

PUBLICITY

In order to gain support for our conservation aims it will be helpful to publicise present and future results. This is the main aim of the **Conserve Bats, Conserve Heritage** project. This includes widening membership of the South Lancashire Bat Group, and involving the public and other interested groups (e.g. heritage groups) in the surveys to raise a general awareness of the value of these areas to wildlife.



© Bat Morris

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CONSERVE BATS CONSERVE HERITAGE

South Lancashire Bat Group

THE SOUTH LANCASHIRE BAT GROUP

is a large and active voluntary charity working for bat conservation in and around the vice-county of South Lancashire, excluding Merseyside. The area includes Greater Manchester and the south-eastern parts of the present county of Lancashire.

This is a summary of a survey initially covering 29 millponds in the Kirklees Valley, Tottington, Bury, as well as a number of additional ponds in the South Lancashire area that have not previously been surveyed to any degree by the Group. The project took three years to complete.

BAT SURVEYS

Initial surveys were confined to the Kirklees Valley between 1994 and 2003. Between 2004 and 2006 we undertook the three year survey, funded by the Heritage Lottery Fund: the '**Conserve Bats, Conserve Heritage**' Project which encompassed a wider ranging selection of ponds.

The methods used during the surveys, enabled us to gain an insight into ever changing bat activity, and changes at breeding and feeding areas, thus promoting active lobbying for the conservation of bats and local heritage.



Kirklees Valley

THE SURVEY SITES

Surveys were carried out at:

- The Kirklees Valley, Bury
- Healey Dell, Rochdale
- Wigan Flashes, Wigan
- Cliviger, Todmorden
- Parkers and Whitehead Lodges, Ainsworth, Bolton
- Burrs County Park, Bury
- East Lancashire Paper Mill Radcliffe, Manchester
- Starmount Lodges, Bradley Fold, Bury
- Moses Gate Country Park, Farnworth, Bolton
- Jumbles Reservoir, Bolton
- Pilsworth Fisheries, Bury
- Whitley Reservoir, Wigan
- Worsley Delph, Worsley, Manchester
- Hollins Vale, Bury
- Yarrow Valley, Chorley
- Philips Park, Whitefield, Manchester
- Pyramid Park, Bury
- Ponds at Haigh Hall, Wigan
- Redisher Woods, Ramsbottom, Bury

These sites were surveyed repeatedly to determine how bat activity changed throughout the survey in addition we surveyed a number of other ponds. For further details log on at www.slb.org.uk.



Daubenton's Bat feeding over pond

For more information on the Conserve Bats, Conserve Heritage log onto our website at:

www.slb.org.uk

Further information of the Local Heritage Initiative can be found at:

www.lhi.org.uk and www.hlf.org.uk



**SOUTH LANCASHIRE
BAT GROUP**

Registered Charity Number 1109519

If you are undertaking building work and bats may be present, please contact the Bat Group. To get involved with the work we undertake at the Bat Group, or have a query about bats, please contact:

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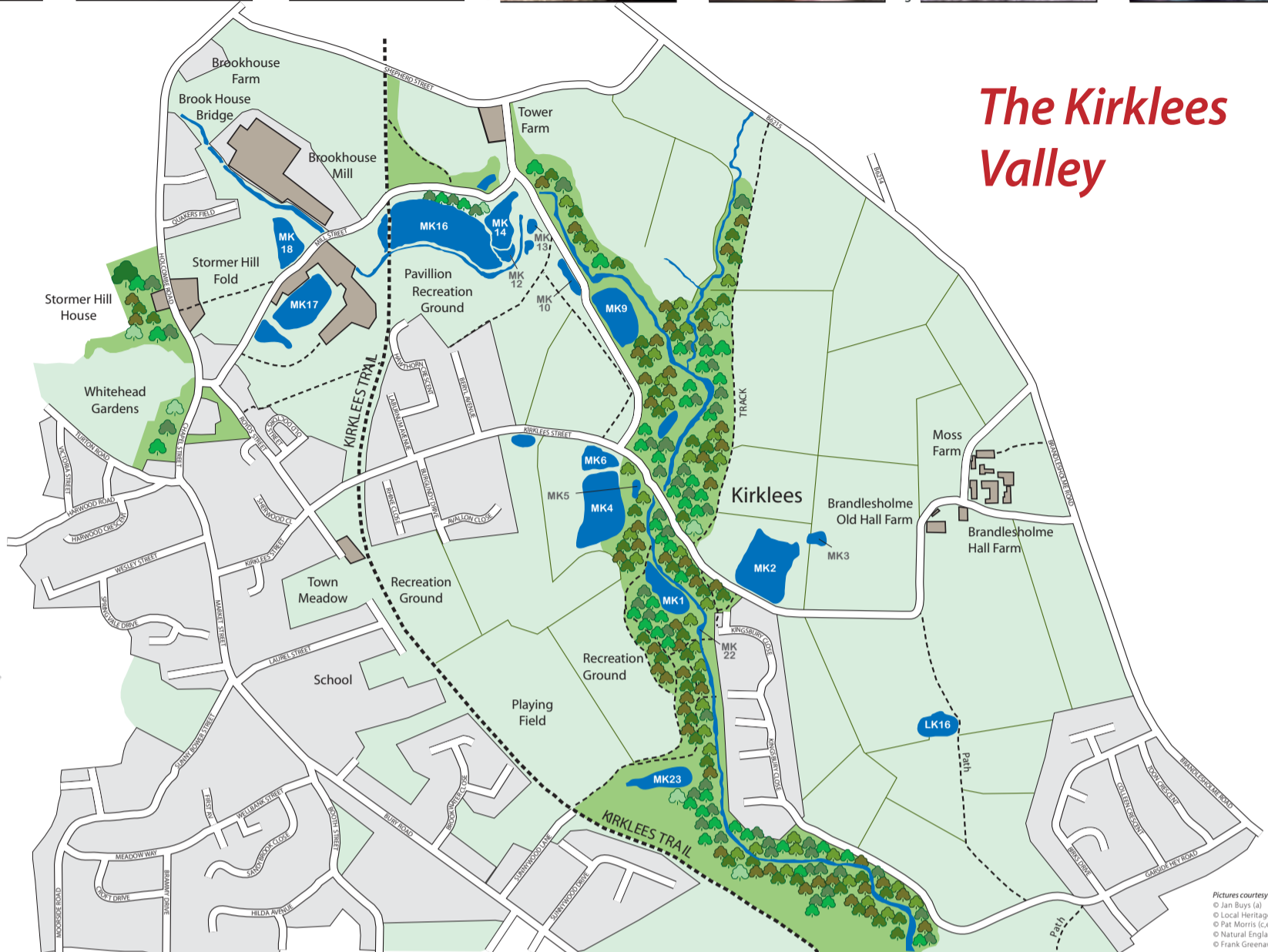


Heritage
LOTTERY FUNDED



- a) **Common Pipistrelle**
Pipistrellus pipistrellus
- b) **Soprano Pipistrelle**
Pipistrellus pygmaeus
- c) **Daubenton's Myotis**
daubentonii
- d) **Whiskered Myotis**
mystacinus
- e) **Noctule** *Nyctalus noctula*
- f) **Brown Long-Eared**
Plecotus auritus
- g) **Natterer's Myotis**
nattereri
- h) **Serotine** *Eptesicus serotinus*

The Kirklees Valley



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Conserve Bats, Conserve Heritage Project

RESULTS

Seven bat species were recorded during the surveys:

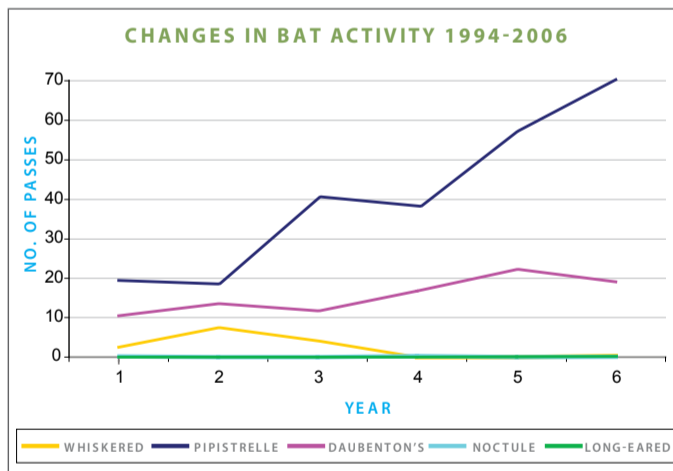
- **Common Pipistrelle** *Pipistrellus pipistrellus*
- **Soprano Pipistrelle** *Pipistrellus pygmaeus*
- **Daubenton's bats** *Myotis daubentonii*
- **Noctule bats** *Nyctalus noctula*
- **Whiskered bats** *Myotis mystacinus*
- **Natterer's** *Myotis nattereri*
- **Brown Long-Eared bats** *Plecotus auritus*

Most ponds had at least bats of two different species feeding over them.

Pipistrelle bat activity increased from 19.48% in 1995 to 70.3% in 2006. This increase is considered to be significant. **Daubenton's** bat activity also increased at a steady rate over the same period.

A significant positive correlation between both **Daubenton's** bat and **Noctule** bat, and pond size was found. The larger the pond, the better, for these bat species.

In the Kirklees Valley **Pipistrelle** activity increased in the lower valley compared with higher altitude. Activity of **Whiskered/Brandt's** and **Daubenton's** bat was higher in the middle section.



For **Daubenton's** bat it can be said that there is significantly greater activity over the millpond than for other surveyed habitat types, meaning that the bats are selecting the water body in preference to these other habitat types.

When ponds had very low water levels or were virtually 'dry' the number of bat passes dropped substantially.

It is likely that bats, displaced from a pond which has been lost, or where the quality of a pond is reduced, will only remain in the area if there are alternatives within close proximity with suitable habitat connectivity to guide them. However, whether bat numbers could be sustained indefinitely by such a reduction, is unknown.

The Wigan sites, especially the Wigan Flashes are a stronghold for **Noctule** bats in the South Lancashire area.

Bats were found at all the ponds and other water bodies in all the sites of the survey area, highlighting their importance as bat foraging areas.



The survey results show how important it is to protect millponds, not only as historical features, as in many cases they are the last remaining fragments of the North West's industrial heritage, but also as important wildlife rich areas.

Since the start of the survey there has been a net loss of ponds, both in the Kirklees Valley, where some ponds have now been completely consumed by reeds and have dried out, and at sites like the East Lancashire Paper Mill, where ponds have been drained for development. The threat of draining and infill is ever present.

This survey has highlighted the importance of the whole of the Kirklees Valley, and in particular it's series of millponds. The Bat Group will continue to lobby for the protection of these ponds to help conserve local bats.

