

Conserving Worcestershire's Flagship Orchards

Project completion and evaluation report to the Heritage Lottery Fund

Worcestershire Biological Records Centre

June 2013-July 2015

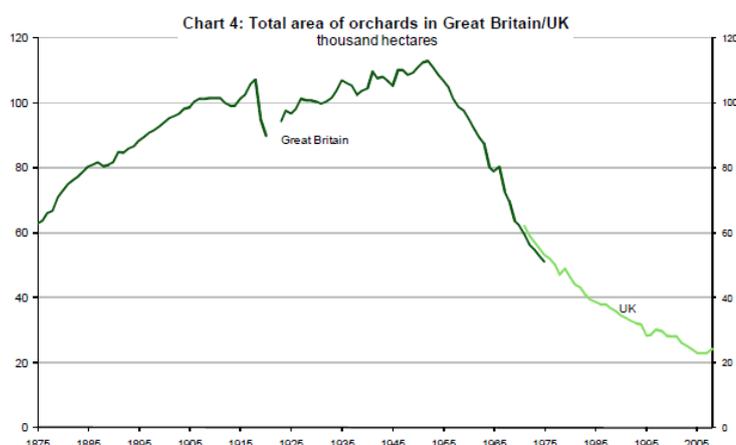
1. Why we wanted to do the project

The extent of traditional orchard habitat underwent a massive decline in the latter half of the 20th century and between the 1950s and 2000 the UK lost around 90,000 hectares of orchard (Government Agricultural Statistics). The rate of decline has now slowed and since 2005 the extent of orchard in the UK has remained relatively stable at between 22-24,000 hectares. Orchards were an important part of Worcestershire's rural economy for approximately 100 years and even with this extent of loss it is estimated that the county still contains in the region of 2,000 hectares, about 8% of the England total. Orchards on full-standard rootstocks planted in the late 19th or early 20th centuries would have been managed 'traditionally' without the use of modern agricultural chemicals or machinery. When we then factor in what is now many decades of neglect since those old orchards ceased being commercially viable, the result can be an incredibly high biodiversity value. Despite this, few orchards in Worcestershire are protected in their own right with a conservation designation. Worcestershire only relatively recently (2010) developed criteria for listing traditional orchards as Local Wildlife Sites, so they are very under-represented within the county Local Sites system.

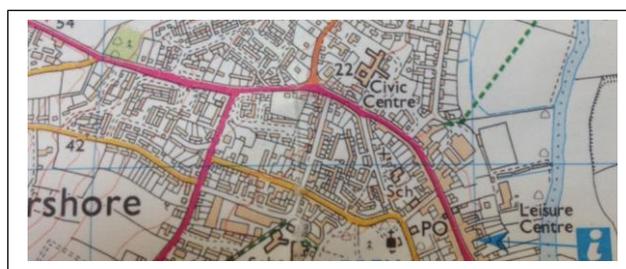


Agriculture: historical statistics

Standard Note: SN/SG/3339
Last updated: 18 December 2009
Author: Matthew Keep
Social & General Statistics



Above: neglected and derelict orchard.
Left: decline in orchard extent across Great Britain / UK between 1875 and 2005.



Above: comparison of historic map of Pershore (1884) with the same area 100 years later (1996) showing the loss of orchard as housing development advances.

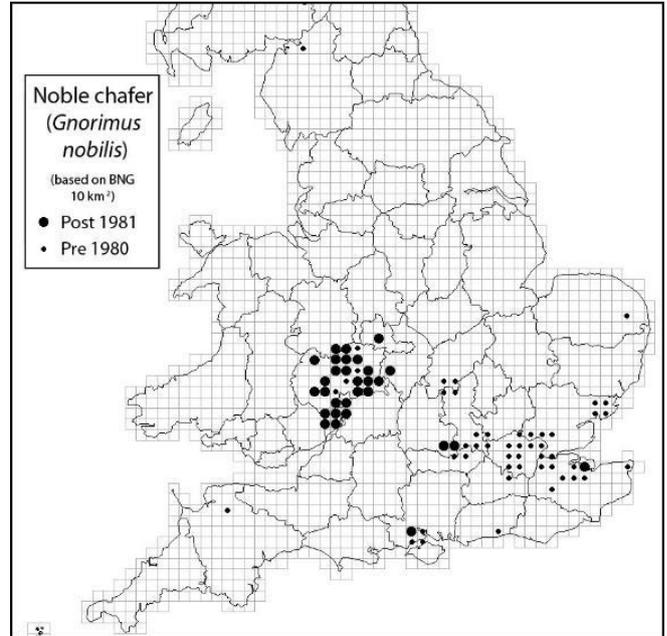
Anecdotal evidence gathered by conservation organisations and other professionals suggested that although people living in Worcestershire appreciated the significance of orchards to the county's landscape and rural heritage, there was low awareness of their wildlife value. The oldest, most neglected orchards were viewed as fairly worthless when in fact it was often these that had the highest value to wildlife. The survival of these orchards is at risk due to the level of neglect and dereliction many have now reached, with owners choosing not to replace dying trees. Many new owners lack the skills and knowledge to restore and maintain an old orchard and there are limited financial incentives for doing so. Raising levels of understanding and appreciation of the importance of old orchards to biodiversity is critical to their future survival, as is supporting orchard owners with good advice and information.



Above: orchard owners and conservation professionals meet at a biodiversity event at Stocken Orchard near Pershore in June 2014.

Orchards are known to be host to some rare species and the Noble Chafer beetle *Gnorimus nobilis* is probably the one for which Worcestershire is best known. The beetle's distribution is closely related to the remaining extent of traditional orchard in the UK and Worcestershire, Herefordshire and Gloucestershire are particular hot spots. Other UK priority species of conservation interest to county naturalists include the Mistletoe Marble Moth *Celypha woodiana*, the Mistletoe Weevil *Ixapion variegatum* and a rare species of crane fly *Ctenophora pectinicornis*. The distribution of the latter three species is not well understood in Worcestershire.

Worcestershire Biological Records Centre is the county's hub for the collection, management and dissemination of biological data. We work closely with a network of volunteer naturalists and professional organisations in the conservation sector to ensure that decision-making is carried out using the best and most up-to-date habitat and species information. WBRC is a member of the county Local Sites Partnership. We identified a need to improve the data that we held about Worcestershire's traditional orchards and the species living within them and an opportunity to work with local experts in order to engage the public and orchard owners in the conservation of this habitat.



Above and right: the Noble Chafer beetle and its UK distribution.

2. The difference we wanted to make

- We wanted awareness amongst the general public and orchard owners of the importance of orchards to Worcestershire's wildlife and landscape to increase
- We wanted the number of records held by WBRC for orchard-specialist species such as the Noble Chafer beetle to increase
- We wanted the quantity and quality of data that we held about the current management and condition of old traditional orchards to increase
- We wanted the number of orchards protected through the county Local Sites system to increase

3. Funding secured

WBRC received a grant offer of £37,600 from the Heritage Lottery Fund in May 2013, which was match funded by a grant of £7,500 from Worcestershire County Council.

4. Summary of how we met each of the agreed aims of the project

Using the grant funding WBRC employed a Project Officer for 2 days a week for 2 years to deliver the following aims of the project.

Aim 1. Carry out condition surveys of traditional orchards to feed into local and national inventories
Up-to-date information on 165 Worcestershire orchards was obtained through survey work during the course of the project and submitted to the National Orchard Inventory (managed by People's Trust for Endangered Species), doubling the number of Worcestershire orchards for which current condition and management status was known.

Four volunteers received training from the Project Officer in carrying out orchard assessments using the protocols developed by PTES. These volunteers all completed survey work in their own local area and contributed data to the project.

Right: assessing the condition of trees in Aconbury Orchard, Worcester.



Aim 2. 20 orchards to be surveyed against LWS criteria

The condition assessment survey data, plus information provided by conservation partners, was used to identify a suite of 20 orchards considered to be of high priority for assessment against the Worcestershire Traditional Orchard Local Wildlife Site criteria. Access permission was secured from owners by the Project Officer and in partnership with Worcestershire Wildlife Trust each site was visited and a full Local Wildlife Site assessment carried out.

19 of the sites surveyed met the Local Wildlife Site threshold and these have been accepted by the Local Sites Partnership for listing. One site just missed the qualification threshold and the owners of this site were offered advice on orchard restoration and management. If implemented this should hopefully lead to an increase in habitat condition and biodiversity value and therefore an opportunity to re-assess the site in the future.



Above: Court House cherry orchard and The Lenches Community Orchard – two of the sites that qualified as Traditional Orchard Local Wildlife Sites in 2014.

During the project extension (June-July 2015) a further suite of sites was identified as being suitable for Local Wildlife Site assessment. These will be considered by the partnership for survey during 2016 if funding can be secured.

Aim 3. 8 species ID courses held for the public

The project has focused ID and survey training on four key species and one group of species found within traditional orchards: Noble Chafer Beetle, Mistletoe Marble Moth, Mistletoe Weevil, Red-belted Clearwing and bryophytes (mosses and liverworts). Eight ID and survey training events have been held, attended by a total of 77 people. Four local experts volunteered their time to support delivery of the training.



Above: red-belted clearwing survey training in Blackhouse Orchard.



Above left: bryophyte recording in an orchard with the Worcestershire Bryophyte Group.

Above right: noble chafer survey training at Croome Park.

Aim 4. Display boards produced and case studies booklet published

A set of display boards were designed and printed to promote the project and the landscape and biodiversity value of Worcestershire's orchards. The boards were taken to events and talks attended by the project officer.

The Project Officer carried out interviews with ten orchard owners from across Worcestershire. These were compiled into a booklet that aimed to showcase some of the reasons for the survival and continued management of old orchards in the county and to celebrate some of the owners undertaking this task. The booklet will be published on the web where we hope it will provide inspiration and practical information and advice to others trying to do the same thing.

Aim 5. 20 volunteers or orchard owners engaged as Ambassadors

In an agreed change to our project we broadened the scope of the 'Orchard Ambassador' role to include not only volunteers undertaking survey work and raising awareness within their communities but also orchard owners who agreed to welcome the public into their orchard for events, survey work and training courses that took place during the project. We felt it was important to give these orchard owners that recognition as they played an important role in enabling more people to learn about and appreciate Worcestershire's orchards and the wildlife living within them.

Eleven orchard owners were kind enough to agree to be a host to the projects activities. Nine individuals (non-orchard owners) organised events within their own communities or worked to raise awareness within their community of the importance of Worcestershire's orchards.

Right: volunteers taking part in a mistletoe management training event in one of our Ambassador Orchards



Aim 6. 250 people engaged through public events

A total of 422 people were engaged through the events organised and run by the project, through booking onto training events and walks or choosing to attend advertised talks. This figure does not include people who, for example, stopped to read the project display boards or pick up a leaflet at organised events that the project officer attended with an information stand, such as the Pershore Plum Festival and Tiddesley Wood Open Day.

5. Evaluating what we achieved

5.1 What went well and why

The Local Wildlife Site surveys carried out in spring-summer 2014 were a big success for the project and WBRC worked closely with other members of the Worcestershire Local Sites Partnership to deliver this. The survey work resulted in 19 new traditional orchards being formally listed and brought into the Local Sites system, including one site where we responded to concerns from the district council that an orchard might be under threat from development: we were able to prove that the site was of sufficient biodiversity and landscape value to easily meet the LWS criteria and thus allow its value to be formally recognised within the local planning system.

Getting owner permissions for the LWS survey work went well. In all of the approaches made to owners we only had one refusal of permission to carry out the assessment. Some lovely sites were discovered and new species records gained. Most owners were very interested in the process and pleased that their orchard was considered to be of high enough biodiversity value to be targeted for assessment. Engaging with owners in this way enabled us to provide management advice based on the results of the assessment, informing them of how they might alter their management or undertake work to further enhance wildlife and landscape value.

In an unexpected development that added a huge amount of value to what we were already delivering, our project prompted Natural England to invite WBRC to apply for a small amount of funding to disburse to traditional orchard Local Wildlife Site owners in the form of grants for habitat restoration work. Nine sites subsequently received a grant between January and March 2015 (totalling £3,600) and this resulted in 94 new fruit trees being planted, 77 livestock guards being constructed or replaced, approximately 15 trees being pruned and some mistletoe reduction being carried out.



Left: one of the Worcestershire Traditional Orchard Local Wildlife Sites that received a grant for new tree planting and livestock guard construction in 2015.

The orchard owners approached for an interview for the case studies booklet really engaged with this aspect of the project. Lots of lovely stories were brought together in the booklet, thanks to some really passionate people who care deeply about their orchards. We hope that the booklet will prove to be an inspiration to other orchard owners, not just those in Worcestershire but nationally, who may be experiencing the same doubts and hurdles in restoring and managing their own site.

The project resulted in some significant new species records for Worcestershire. We added significantly to WBRC's positive/negative Noble Chafer database (it is important to record orchards that have been searched but reveal no evidence of the beetle). The survey work for Mistletoe Marble Moth was particularly valuable as we know very little about the moth's distribution in Worcestershire. Our county is at the very northern edge of the moth's known range and through the project we took the number of county records from 3 sites to 8.

Right: mistletoe marble moth



5.2 What didn't go well and why

It proved more difficult than anticipated to recruit people to a longer term and more formal commitment as an Orchard Ambassador, as oppose to more 'casual' volunteering. This was due primarily to potential volunteers having numerous demands on their time and being reluctant to commit to a role that needed a specified amount of effort and time spent on it. (Even though we didn't set a minimum requirement for volunteering time/effort, this was inevitably a role where the level of commitment needed to be pre-agreed). We made the decision to mitigate this by including orchard owners who were happy to grant organised public access within the Ambassador definition, to reflect how important this aspect was to the success of the project.

We underestimated the amount of follow up support that would be required from the Project Officer for volunteers undertaking condition and management surveys within orchards in their local area and this resulted in a small number of volunteers not fulfilling work that they had pledged to do. The main issue was that volunteers came from every corner of county and the Project Officer had only a limited amount of time allocated in which to train them and provide subsequent support.

5.3 Lessons learnt

With regards to the training and support of volunteers carrying out survey work a better approach would have been to divide the county up into zones and offer group training and support within zones rather than trying to train and support people individually. This would have had the added benefit of proving volunteers with a wider support network than just the Project Officer.

The species ID events we organised proved very popular. Attendees liked the format generally adhered to of a walk/demonstration and getting access onto sites they wouldn't otherwise have been able to visit. In hindsight we could easily have broadened out the range of species covered and the number of training events delivered by getting additional naturalists on board.

Although we believe the case studies booklet we produced was a very worthwhile document, we should have factored in more time for this part of the project as it had such a great response from owners. The production of the booklet – travelling, interviewing and then transcribing – was time consuming and we would have liked to have ended up with more completed case studies than was possible in the time allowed. The authors of the www.worcestershireorchards.co.uk website have agreed to host the case studies booklet and to gradually add to the number of interviews within the booklet as time and opportunity allows.

6. The difference we made by delivering our project

6.1 The difference we made for heritage

- Prior to our project the Worcestershire Local Sites register contained 24 Traditional Orchards listed for their high biodiversity and landscape value. No habitat management advice and guidance had been offered to the owners of these sites. All of the sites were listed between 2011 and 2013 but resources were not available within the Local Sites Partnership to engage with owners beyond carrying out the LWS assessment. Our project contacted the owners of these sites and offered them an advice visit from the Project Officer. Eleven owners accepted the offer and received advice on the restoration and future management of their orchard in order to maximise and maintain the biodiversity value.
- Our project brought about the protection of 19 additional orchards through the Local Wildlife Site system, by arranging survey permissions with owners and contracting an expert from Worcestershire Wildlife Trust to undertake the assessment work. The 19 orchards that passed the criteria have been accepted by the Local Sites Partnership for listing.

- The Project Officer, supported by volunteers, has carried out surveys within 62 orchards for key orchard species during the 2-year project. As a result of those surveys 22 new sites for Noble Chafer Beetle have been found and Mistletoe Marble Moth was recorded in 3 new orchards. This has increased our knowledge of the distribution of key orchard species within the county.
- The Project Officer and volunteers carried out survey work to document the current condition and management of 165 traditional orchards. This data was used to target sites for Local Wildlife Site assessment and is available to be used in the future by those wishing to target further traditional orchard project work. The information collected will be held by WBRC and has also been provided to PTES for inclusion within the National Orchard Inventory.
- We significantly increased people's awareness and understanding of the importance of Worcestershire's orchards: 422 people took part in a walk or training event or attended a talk and the Project Officer attended 10 events with display boards and leaflets.

6.2 The difference we made for people

- Our project enabled people to visit, learn about and experience a habitat they might otherwise never have known much about. We facilitated access to privately owned, old traditional orchards that had never previously allowed public access, in some instances connecting orchard owners with interested people in their own wider community.
- We gave people opportunities to learn about traditional orchards, their history and wildlife from an expert, by connecting interested members of the public and volunteers with local naturalists.
- We gave people opportunities to volunteer and take part in survey work focused on traditional orchards and their biodiversity.
- We educated orchard owners and the public about the biodiversity value of old orchards, changing perceptions away from seeing ageing and dying timber as something to be cleared away to appreciating the huge value it has for wildlife.

6.3 The difference we made for communities

- We improved the condition of local orchards within the landscape by giving management advice to owners at all appropriate opportunities, primarily during condition and management survey work and Local Wildlife Site assessments. As part of a Natural England-funded project run concurrently, WBRC gave out small grants to the owners of nine sites to carry out management and restoration work in their orchard.
- We enabled 19 orchards to be given protection through the Local Wildlife Sites system so that they will continue to enrich the landscape for future generations to enjoy.