

# Old Orchards Habitat Action Plan

## 1 CURRENT STATUS

**1.1 Description** Orchards are not defined as a national BAP habitat but as a sub-group in the lowland wood pasture habitat. Old orchards have been identified as a local BAP habitat in Gloucestershire because of their importance within the County. Historically the main concentrations of orchards throughout the country have been found in Kent, Devon, Somerset and the three counties of Gloucestershire, Worcestershire and Herefordshire. The concentration of old orchards in Gloucestershire is therefore of national importance.

**1.2 Definition** Orchards are a distinctive part of Gloucestershire's heritage, making a significant contribution to biodiversity, landscape character and local distinctiveness. The most important sites for wildlife are the older, traditional standard orchards, because these tend to be extensively managed and contain mature trees of a variety of species including apple, pear and plum. Modern orchards, consisting of small, intensively managed dwarf bush trees, are of less wildlife value. Such orchards can have a cultural value through preserving old varieties and promoting local community involvement however. For the purposes of the Gloucestershire BAP, "Old Orchards" are defined as:

"Sites with a continuous presence since before 1950 of fruit or nut trees on vigorous rootstocks and at traditional standard spacing, with a grass sward usually either grazed by livestock or cut for hay."

**1.3 Distribution and extent** Approximately 75% of Gloucestershire's old orchards have been lost in the last 50 years (GCC Orchards Pack, 2<sup>nd</sup> ed., 2005). Despite this, orchards still form a strong part of the traditional landscape character in areas such as the Severn Vale (Severn and Avon Vales Natural Area) and around Dymock (Forest of Dean and Wye Valley Natural Area). These contain a sizeable number of trees of local varieties, such as Dymock Red, Berkeley Pippin and Blaisdon Plum. Gloucestershire also has some of the best remaining perry pear orchards which contain very old trees.

The June 2002 Defra Agricultural and Horticultural Census showed that Gloucestershire has 754 ha. of orchards, including 280 ha. of "orchards not grown commercially". This figure does not include orchards no longer associated with agricultural or horticultural businesses. As the majority of non-commercial orchards along with a smaller but significant proportion of commercial orchards are likely to fall inside the BAP definition, this indicates that there are a considerable number of old orchards in the county. However, traditional orchards are still being lost. Other sources of information include ordnance survey maps, aerial photos and Defra records of agri-environment scheme agreements.

**1.4 Legal status** There are a number of mechanisms under which orchards may be protected, either directly or indirectly. However it is not illegal to grub up or fell an orchard.

**1.4.1 Development Control** - The current development policies including those in the County Structure Plan, Local Plans (for each of the District plus for Minerals and Waste) and emerging local development frameworks are available by visiting the County Council and District, Borough or City Council websites. Old Orchards are variously protected as trees, landscape features and as habitat with biodiversity value.

**1.4.2 Tree Preservation Orders** - The Town and Country Planning Regulations 1999 make it possible to place a TPO on fruit trees where it is in the interest of amenity to do so. Orchards may also be designated according to the draft PPS9 Circular (paragraph 88) provided they can be proved to be of 'substantive benefits for biodiversity conservation'. TPOs are mainly used in urban areas to retain trees within residential infill development. They may be placed on individual fruit trees of particular interest or on whole orchards. They cannot be used to control tree work in orchards used for the commercial production of fruit.

**1.4.3 Sites of Special Scientific Interest** – There are no SSSI criteria specifically for orchards. Orchard sites could be selected for designation however on the basis of the botanical interest of the grassland, or for invertebrates or other wildlife associated with the fruit trees.

**1.4.4 Local Nature Reserves** - LNRs are designated by Local Authorities, in consultation with English Nature. (Section 21 of the National Parks & Access to the Countryside Act 1949). To declare a LNR the local authority must have a legal interest in the land, either by ownership, lease or management, though in practice LNR designation is usually only applied to sites in local authority ownership. The criteria for designation emphasises that sites selected must be of special interest in the local area, or of reasonable natural interest, and of high value in the area, for the informal enjoyment of nature by the public. These criteria can be applied to orchards in Gloucestershire.

**1.4.5 County Wildlife Sites** - The designation of these sites, known as Key Wildlife Sites (KWS) in Gloucestershire, is a non-statutory process. However there are policies protecting these sites from inappropriate development within the County Structure Plan and in Local Plans and Local Development Frameworks produced by District Authorities. Unlike LNRs the designation of KWS does not require the landowner's consent. They are identified for species and habitat reasons by the application of a set of specific scientific criteria. Although there are orchard KWS in Gloucestershire these have been designated for reasons other than the orchard trees, as there are no specific criteria for designating orchards at present.

**1.4.6 Environmental Impact Regulations** – Although not specifically designed to protect orchards the regulations, which apply to semi-natural or uncultivated land, may be used to protect orchards on areas of unimproved grassland. Grass swards fall within the scope of the regulations if the proportion of sown species indicative of cultivation (usually Rye-grass and White Clover) is less than 25-30%. The work undertaken must constitute a project and be for agricultural intensification (other end uses might be covered by Planning Regulations). Felling or grubbing up the orchard and sowing a grass ley would constitute a project and represent agricultural intensification. The final test is one of significance. The orchard might be considered significant for biodiversity (for example if it held significant populations of a BAP species), for historic features (for example ridge and furrow) or for its landscape value. Larger orchards over 5 Ha (or 2 Ha in sensitive areas such as AONBs) would be subject to Forestry EIA regulations. The regulations are being reviewed this year.

**1.5 Associated species and habitats** Old orchards are particularly valuable to a wide range of wildlife and support a number of rare, endangered and BAP species. The combination of old trees within permanent pasture creates a habitat with similarities to wood-pasture.

Extensively managed fruit trees produce lots of standing and fallen dead and decaying wood. This can support hole nesting and insectivorous birds, roosting bats and saproxylic (deadwood) invertebrates. The noble chafer *Gnorimus nobilis*, a UK Priority beetle associated with orchards has been recorded in the county. Fruit tree blossom is a good source of nectar for bumblebees, butterflies and other insects while the windfalls and decaying fruits provide important autumn and winter food sources for mammals, birds and insects. The bark can support a good cover and range of lichen and moss species and can also be important for invertebrates which specialise in epiphytes.

Gloucestershire, particularly the Severn Vale, is a national stronghold for mistletoe *Viscum album*. The characteristic frequent and heavy growth in turn supports important populations of a number of insects which only live on mistletoe, e.g. the mistletoe weevil *Ixapion variegatum*.

Traditional orchards often have associated habitats such as hedges and ponds. They may have been present on a site for a considerable time and contain old permanent pasture and archaeological features such as ridge and furrow. In some cases they may also support unimproved grassland communities with a diverse flora.

The intensive management of modern orchards, through the use of pesticides and sterile strips and the removal of dead wood, reduces their value for wildlife.

<b>Links between the Old orchards Habitat Action Plan and Priority Species</b>		
<i>Species</i>		<i>Other habitat action plan associations</i>
<b>Primary Association</b>		
Noble chafer	<i>Gnorimus nobilis</i>	wood pasture
<b>Secondary Association</b>		
Greater horseshoe bat	<i>Rhinolophus ferrum-equinum</i>	Species Action Plan (SAP)
Lesser horseshoe bat	<i>Rhinolophus hipposideros</i>	SAP
Noctule bat	<i>Nyctalus noctula</i>	SAP
Barbastelle	<i>Barbastellus barbastellus</i>	SAP
Pipistrelle	<i>Pipistrellus pipistrellus</i>	SAP
Brown hare	<i>Lepus europaeus</i>	farmland
Bullfinch	<i>Pyrrhula pyrrhula</i>	farmland
Song thrush	<i>Turdus philomelos</i>	farmland
Linnet	<i>Carduelis cannabina</i>	hedgerows, farmland
Spotted flycatcher	<i>Muscicapa striata</i>	woodland, quarries & gravel pits, towns & villages, rivers & floodplains
Tree sparrow	<i>Passer montanus</i>	Farmland
Great crested newt	<i>Triturus cristatus</i>	SAP
Stag beetle	<i>Lucanus cervus</i>	SAP
Mistletoe	<i>Viscum album</i>	
Wild daffodil	<i>Narcissus pseudonarcissus</i> <i>ssp. pseudonarcissus</i>	

## **2 CURRENT FACTORS AFFECTING OLD ORCHARDS**

**2.1 Change of land use** Historically the loss of orchards through conversion to arable or grassland has been an important factor over the last 50 years. Nowadays the "modernisation" and conversion of less profitable standard orchards to bush orchards is a greater threat. Commercial and conservation objectives may conflict, as some of the features most beneficial to wildlife such as dead wood and the non-use of herbicides, pesticides and fertilisers may affect fruit production.

**2.2 Neglect and economic decline** Currently many orchards are in a derelict state. Farm incomes have declined, as has the demand for traditional fruit and cider varieties, particularly compared to foreign imports. These reasons mean there is little commercial incentive to replace trees when they die and retain those remaining orchards. This is the main factor currently threatening the county's orchards.

**2.3 Lack of awareness and management** There is a lack of awareness and understanding of the cultural value of traditional orchards and their importance as a vital wildlife habitat and a lack of traditional management knowledge and skills to look after them.

**2.4 Development** Many surviving orchards are found close to farm houses or villages and the pressure to provide extra housing developments coupled with the lack of legal protection means that these orchards are often threatened. Indirect development can be a cause of loss through the change of owner or land use, for example the grazing of orchards with horses, which can soon kill unprotected trees.

### **3 CURRENT ACTION**

#### **3.1 Legal Status**

**3.1.1** There are currently a small number of TPOs designated on apple, pear and walnut trees in Gloucestershire, most notably at Green Farm orchard, Quedgeley and at Winchcombe.

**3.1.2** There are no existing SSSIs that include orchards in Gloucestershire.

**3.1.3** There is currently 1 orchard within an LNR, at the Gloucester City Council reserve at Robinswood Hill. Gloucester City Council is also hoping to declare the site at Green Farm orchard, Quedgeley, in 2005.

**3.1.4** There are currently 3 KWSs in Gloucestershire that contain orchards; Mantley Chase Orchard, Glasshouse Orchard, and Gwen and Vera's Fields, a GWT nature reserve. GWT is adding orchards to its criteria for designating sites.

**3.1.5** GCC are currently compiling a tree strategy document which will cover orchards, specifically those on GCC-owned farms.

#### **3.2 Research and Recording**

**3.2.1** For the last three years PTES, Lead Partner for Noble Chafer in the BAP, together with EN have been surveying orchards for noble chafer. Since 2003 more detailed strategic surveys have been carried out using the FoD digitised maps (see 3.2.2) to view and assess orchards for their condition for noble chafer larval habitat. Only smaller domestic orchards and the occasional larger ones not visible from rights of way are being omitted.

**3.2.2** As part of the Forest of Dean Integrated Rural Development (IRD) Project led by the CA, GWT, EN, FoDDC, FE and GCC have been working together to collate records for a range of priority habitats and species. This includes the past and present distribution and coverage of extant orchards, from OS maps and aerial photos. The information is being collated in the form of digitised maps, with the intention of feeding it into the wider IRD process and making it available to interested parties. The information is now held by GCER.

#### **3.3 Restoration, Management and Guidance**

**3.3.1** Defra's Rural Development Service (RDS) operates the Countryside Stewardship Scheme (CSS) and the Cotswold Hill Environmentally Sensitive Area (ESA) scheme. These pay for an agreed programme of sensitive orchard management and restoration over a ten year period for wildlife, landscape and historic benefits. Management includes extensive grazing, pruning of old trees, planting replacement trees of traditional varieties in gaps, and fencing. The management of orchards is a key objective of CSS in the Forest of Dean and Wye Valley, the Newent, Dymock and Leadon, and the Severn and Avon Vales Target areas. There are more than 100 agreements with landowners under these schemes in Gloucestershire, with approximately 200 ha. of orchards being restored or managed.

In 2005 these schemes ceased to accept new applications and were succeeded by the Environmental Stewardship Scheme (ESS). This scheme includes additional options for the creation of traditional orchards and the management of commercial standard orchards landscape and historic benefits. There is also a secondary objective of conserving the genetic diversity of local varieties of fruit trees.

**3.3.2** Since 1992 the County Council has run a grant aided scheme 'Restoring Our Landscape' which targets orchards as a key landscape feature. This has resulted in the planting of 2500 orchard trees.

Projects include a community orchard at Staunton School and work around Dymock and Bromsberrow, Framilode and other Severnside planting.

**3.3.3** Tewkesbury District Council has an 'Environmental Improvement Grants' scheme that can benefit old orchards.

**3.3.4** The Gloucestershire Apple Collection is located at Charles Martell's Farm, consisting of distinct traditional Gloucestershire apple varieties grown as standards. This collection is monitored and approved by the NCCPG and currently contains nearly 100 varieties.

**3.3.5** The County Council in partnership with Charles Martell has created a collection of apple trees as a Millennium Project with support from Bulmers, Thornhayes Nursery and Common Ground. Local varieties have been located, identified and grafted or budded over the last ten years. These now form a public bank in the Mother Tree Orchard at Uckington, near Cheltenham. Recently a plum collection has been started in Standish.

**3.3.6** In 2000 GCC, in partnership with the National Trust initiated the Museum Orchard project, with the aim of establishing all the Gloucestershire apple varieties as M25 trees in traditional standard orchards. The first planting of forty six trees took place at the project base, the Old Ebworth Centre, near Birdlip within the remnants of an old walled orchard, part of Ebworth House (now demolished). A second, larger planting has been undertaken at Brentlands Farm near Brookthorpe, where all the known Gloucestershire varieties will be planted. Management of this site is being funded by the CSS. Meanwhile, other local varieties will be grafted and grown on by nurseries to be replanted at the other identified sites to further the County Collection.

**3.3.7** The Three Counties Showground in Malvern houses the NCCPG National Collection of Perry Pear Trees. This contains three trees of every variety still known from the Three Counties area.

**3.3.8** The Ebley Linear Community Orchard was planted in 1994 using traditional and rare varieties along a disused railway line – now a cycle track - between Stonehouse and Stroud.

**3.3.9** GWT have a reserve at Gwen & Vera's Fields near Gorsley, where the local community has restocked the orchard with traditional apple varieties on standard rootstocks.

**3.3.10** A Woodland Trust reserve, Highbury Fields, with an orchard present where it is planned to restock with traditional local apple varieties under the Countryside Stewardship Scheme.

**3.3.11** The Environment Agency is currently managing the restoration and replanting of a traditional orchard at Rodley along with eight other orchards in Minsterworth and Elmore Back as mitigation for Area flood defence scheme maintenance works.

**3.3.12** A perry pear collection, including the ancient Hartpury Green variety, has been established by Jim Chapman of the Shambles Museum, Newent in conjunction with the Hartpury Historic Land and Buildings Trust

**3.3.13** Churchdown Parish Council and Tewkesbury Borough Council are planting a community orchard of Gloucestershire fruit varieties in Churchdown, winter 2003/4 (12 apple, 3 Perry pear, 1 plum).

**3.3.14** GOG has commissioned Rob Watkins (Lodge Farm Trees) to propagate and sell Gloucestershire varieties of apple and eventually other fruits as well.

### **3.4 Advice and Guidance**

**3.4.1** GCC has put together an advisory information pack.

**3.4.2** FWAG provides specialist advice on the management of old orchards and has worked closely with farmers throughout Gloucestershire over a number of years to encourage the restoration of old orchards. In addition GOG, FWAG and BTCV have run workshops for orchard owners on pruning, renovation, budding/grafting and fruit identification.

**3.4.3** GOG has developed a website which has information on orchard management and conservation, local varieties, grants, markets, events and useful contacts.

**3.4.4** RDS are currently developing a series of technical guidance notes on the management of traditional orchards.

### **3.5 Publicity and Marketing**

**3.5.1** Common Ground, an organisation with interest in orchards nationwide, encourages people to set up Community Orchards, promotes the need to conserve old orchards and aims to connect people with common interest across the county.

**3.5.2** Jim Aplin and Dave Kaspar are helping to provide commercial outlets for the fruit from “idle” orchards, through GOG members.

**3.5.3** GOG, in conjunction with Common Ground promotes Apple Day, an annual nationwide event aimed at celebrating the variety of apples and other fruit grown in the country and their richness and diversity in the landscape, place and culture. Past events that have taken place in the county include displays of apples, juice, children's activities at Stroud, Thornbury and Nailsworth Farmers' Markets, Highfield Nurseries (Whitminster), Gloucester Folk Museum, Dean Heritage Museum, Westbury Court Gardens, Oxenhall (Gwen and Vera Woods, GWT reserve) and a GOG/Gloucester City Council Orchard Day at Green Farm, Quedgeley. An annual GOG-run Plum day is held in August at Hayling's Farm, Flaxley. Wassailing, coordinated by the Maisemore Local History Society, is held in January.

## **4 OBJECTIVES**

**4.1 Seek to halt the loss of existing traditional orchards and maintain those remaining in, or restore them to, favourable condition.**

Target: A further 100 ha of traditional orchard in favourable condition by 2010.

**4.2 Encourage the creation and recording of new standard orchards, and also the planting of community orchards, with traditional varieties of fruit trees.**

Target: 20 ha of new traditional orchard to be planted or existing orchard restored through replanting per year, and at least 1 new community orchard planted per year.

**4.3 Establish the current extent and condition of traditional orchards and associated species and establish a system of monitoring to measure changes.**

Target: Establish extent by 2008, establish condition and put monitoring in place by 2011.

**4.4 Promote the knowledge and awareness of the biological and cultural value of local fruit varieties, traditional orchards and the management practices and skills associated with them.**

Target: Ongoing.

**4.5 Stimulate demand for traditional orchard products by instigating a marketing strategy for these and developing a network of contacts, to enhance their long term viability.**

Target: Strategy and network to be in place by 2006.

**5 ACTIONS**

Action	Potential deliverers		Year to complete or put action in place by	Meets objective
	Lead	Partners		
<b>5.1 Policy and Legislation</b>				
<b>5.1.1</b> Seek the inclusion of policies within Structure Plans, Local Plans, Waste Local Plans and Minerals Plans that ensure new development does not have an adverse effect on the conservation value of old orchards.	LAs,	GWT	ongoing	1
<b>5.1.2</b> Ensure that Local Plans identify sites of nature conservation importance with respect to old orchards.	LAs,	GWT	ongoing	1
<b>5.1.3</b> Review Key Wildlife Site criteria to include old orchards and identify suitable orchards to be designated as Key Wildlife Sites and Local Nature Reserves and encourage CSS take-up on these sites.	GWT, LAs	FWAG, GOG, Defra	2005, ongoing	1
<b>5.1.4</b> Where legislation allows consider placing TPOs on fruit trees in non-commercial orchards in prominent public positions, if the orchard is considered to be endangered and is of sufficient amenity or historic landscape value.	LAs	ODPM, GWT, Common Ground	2005, ongoing	1
<b>5.2 Site Safeguard and management</b>				
<b>5.2.1</b> Develop a favourable condition assessment for orchards.	GOG	BTCV	2005	1
<b>5.2.2</b> Continue to maintain and develop the Mother Tree apple and plum orchards so that all extant Gloucestershire fruit varieties are preserved and so the orchard can be used as an educational resource and for propagating local varieties.	GCC	GOG	ongoing	1, 4
<b>5.2.3</b> Continue targeting current and future agri-environment schemes and GCC grants to maintain and conserve old orchards and Gloucestershire fruit varieties.	Defra, GCC	FWAG, GWT, GOG, landowners	ongoing	1
<b>5.2.4</b> Investigate possibilities and funding sources for creating new standard and community orchards containing local fruit varieties on land of low conservation value, in areas where orchards are traditional features.	GCC, LAs, GWT	Defra, GOG	ongoing	2
<b>5.2.5</b> Pursue a site acquisition policy for those key orchard sites which would most benefit from nature reserve management.	GWT, LAs	GOG	ongoing	1
<b>5.2.6</b> Increase the area of traditional orchards in positive management or being restored through agri-environment schemes by 20 ha. per annum.	defra	FWAG	2010	1
<b>5.3 Advisory</b>				
<b>5.3.1</b> Provide orchard owners with management advice and information on husbandry grants and contacts for contractors who can carry out orchard maintenance.	GOG, FWAG	GWT, GCC	ongoing	4
<b>5.3.2</b> Produce an introductory leaflet on orchards highlighting their importance, the need to record and survey them and the formation of GOG, and aim to distribute all owners of old orchards in Gloucestershire.	GOG	GWT, GCC, FWAG	2005	3, 5
<b>5.3.3</b> Update GCC orchards advice booklet, listing sources of advice, grants, suppliers and contractors.	GCC	GOG	2005	4
<b>5.3.4</b> Develop and maintain the GOG website as a source of advice on orchard management and information on local varieties, grants, fruit markets, events and useful contacts.	GOG		2005 and ongoing	4, 5
<b>5.3.5</b> Develop agri-environment scheme advice notes on the management of traditional orchards and their associated habitats.	Defra		2005	4
<b>5.3.6</b> Continue running courses to train landowners, contractors	GOG, GWT,	Defra	ongoing	1, 4

and volunteers in best management techniques.	BTCV, FWAG,			
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#### 5.4 Future Research and Monitoring

<b>5.4.1</b> Promote surveys and research to identify the current extent and condition of old orchards in Gloucestershire and the flora and fauna present, with the aim of establishing a database of old orchard sites, their fruit varieties and wildlife.	GCC, GWT, FoDDC, GOG	FWAG, NERC, colleges & universities	2005 and ongoing	3, 4
<b>5.4.2</b> Establish the status of the noble chafer in Gloucestershire and survey priority sites.	EN, PTES	GWT	2006	3
<b>5.4.3</b> Collate all existing data on flora and fauna associated with orchards to establish the extent of wildlife associated with the habitat.	GEDU	GNS, GIG, GBG, BTO, GOCC, GWT, GOG, GCC	ongoing	3
<b>5.4.4</b> Wherever possible pass biological records to GEDU.	All	GEDU	ongoing	3
<b>5.5 Communications and Publicity</b>				
<b>5.5.1</b> Promote locally grown fruit varieties along with the landscape and conservation value of orchards.	Common Ground, GOG	Grower & farmer groups, GCC, FWAG	ongoing	4, 5
<b>5.5.2</b> Raise the profile of orchards in the county by publicising Apple Day and other orchard/fruit events.	GWT, GOG	FWAG, Defra	ongoing	1, 3, 4, 5
<b>5.5.3</b> Develop a strategy to identify markets for local and organic fruit and other orchard products and assist with their marketing by involving landowners, growers and producers and marketing/accreditation organisations.	GOG, landowners	GCC, Defra	2006, ongoing	5
<b>5.5.4</b> Promote the value of orchards within schools/education system through links with WATCH and teachers INSET training.	GCC, GWT	Defra, GOG	ongoing	4
<b>5.5.5</b> Investigate the feasibility of appointing an Orchards Project Officer to help deliver the actions and objectives highlighted in the BAP and promote orchards generally.	EN, GWT, GCC	GOG	2005	1, 2, 3, 4, 5

## 6 ORGANISATIONS – ABBREVIATIONS AND ACRONYMS

BTCV	British Trust for Conservation Volunteers
BTO	British Trust for Ornithology
CA	Countryside Agency
defra	Department for Environment, Food and Rural Affairs
EN	English Nature
FE	Forest Enterprise
FoDDC	Forest of Dean District Council
FWAG	Farming and Wildlife Advisory Group
GBG	Gloucestershire Bat Group
GCC	Gloucestershire County Council
GCER	Gloucestershire Centre for Environmental Records
GEDU	Gloucestershire Environmental Data Unit
GIG	Gloucestershire Invertebrates Group
GNS	Gloucestershire Naturalists Society
GOCC	Gloucestershire Ornithological Co-ordinating Committee
GOG	Gloucestershire Orchard Group
GWT	Gloucestershire Wildlife Trust
LA	Local Authority
NCCPG	National Council for the Conservation of Plants and Gardens
NERC	Natural Environment Research Council
ODPM	Office of the Deputy Prime Minister
PTES	People's Trust for Endangered Species