

The traditional orchards of Somerset

summary findings of an inventory to support habitat conservation

Traditional orchards are a much loved part of our British heritage and countryside, providing local communities with delicious fruit and peaceful places to enjoy. They also provide food and shelter for hundreds of rare plants, lichens, small mammals and invertebrates including the rare noble chafer beetle which relies on the decaying wood of old fruit trees.

These orchards, often many years old, are made up of a unique combination of fruit trees, scrub, hedgerows, hedgerow trees, fallen deadwood and other features such as ponds. This important habitat is becoming rare as we rely increasingly on imports to provide cheap fruit throughout the year. This has left traditional orchards, an intrinsic feature of the English countryside, at risk from neglect, intensification of agriculture and pressure from land development. Since 1950 Natural England estimates that overall orchard area in England has declined by 63%.

In 2007, traditional orchards were designated as a priority habitat for conservation in the UK and, in response, Peoples Trust for Endangered Species, in collaboration with Natural England and with further support from the Esmée Fairbairn Foundation, has created an inventory of traditional orchards, the first of its kind throughout England. The inventory provides an overview of remaining orchard habitat and its condition from which to focus future conservation action.

traditional orchards - england wide



The inventory contains details of 35,378 individual traditional orchards in England covering 16,990 hectares of land. The orchards were identified through examination of aerial photographs, the boundaries mapped and 19% of them were verified by volunteers. These surveys recorded details of the trees (species, number, age structure, condition, and gaps for new plantings), the orchard floor (type of grassland, plant species composition, anthills, current management), boundary features (such as hedgerows, old pollard trees, stone walls), and other significant features (ponds and streams and other species of interest such as butterflies, mistletoe, lichen and fungi).

Additional information was collected from 764 orchard owners.

Using this information, the condition of each orchard was assessed revealing that 45% of England's traditional orchards are in poor condition, 46% are in good condition and only 9% are in excellent condition. 2,831.55 hectares of England's traditional orchards are included within Environmental Stewardship schemes.

Across England, over 600 local volunteers contributed 563 volunteer days to the project and engaged many orchard owners. Existing data was collected from a wide range of orchard conservation groups, local record centres and such like and we are grateful to all of them.

A full report of the inventory and the project that created it can be found in the Natural England Commissioned Report *Traditional orchard project in England – the creation of an inventory to support the UK Habitat Action Plan.* The report contains full details of the methodology, lists the partners involved, local orchard groups and associated projects.

The inventory is published on the internet and is available to download at www.naturalengland.org.uk or to view at www.magic.defra.gov.uk

somerset's orchards



The inventory lists 2741traditional orchards in Somerset covering an area of 1687.8 hectares. 11% of these individual orchards were verified by survey and 60 orchard owner questionnaires supplied additional information together revealing that

10% of traditional orchards in Somerset are in excellent condition, 29% in good condition and 61% in poor condition. 288 traditional orchards were in Environmental Stewardship comprising 242.98 hectares.

uses for the inventory in Somerset

- Providing a baseline of information from which to focus future conservation action and a tool for monitoring change.
- Enabling a landscape-scale approach to habitat restoration and creation and, through the condition assessment, a means of prioritising orchard conservation. For example, the condition of poor or good orchards could be improved by changing habitat management, or detailed species survey work could be done in excellent orchards for sites suitable for County Wildlife Site designation or their equivalents.
- Assisting the targeting of Environmental Stewardship Schemes.
- Informing the production of land use planning policies included in Local Development Frameworks, Green Infrastructure Strategies and Tree Strategies.
- Focusing efforts for species that are associated with traditional orchard habitat efficiently by using the traditional orchard inventory. For example, prior to field surveying for the mistletoe marble moth, Butterfly Conservation used the inventory to easily identify all orchards within the study area that contained mistletoe.

what is a traditional orchard?

Traditional orchards are groups of fruit and nut trees planted on vigorous rootstocks at low densities in permanent grassland managed in a low intensity way.

These man-made habitats are long-established and widely distributed and are a distinctive feature of the British countryside. Prime traditional orchard habitat consists of grazed grassland with fruit trees of varying age structure, with an abundance of standing and fallen dead and decaying wood.

Traditional orchards differ from intensive orchards which are managed to maximise fruit production, usually including aspects of dense planting of shortlived trees on dwarfing rootstocks, high chemical inputs, intensive pruning to remove dead and decaying wood and maintain the trees in a restricted form, and frequent mowing and spraying of the orchard floor.

A traditional orchard has at least five trees with crown edges less than 20m apart.

To see the complete definition for a traditional orchards together with the national and local traditional orchard Habitat Action Plans, visit the website of the traditional orchard HAP group at www.orchardnetwork.org.uk

Like all inventories, the findings have to be regarded as provisional as information changes. The surveying by volunteers has contributed a great deal to the accuracy of the inventory but errors and omissions will occur. Information regarding proposed amendments to the inventory or digital boundaries, where these are based on new survey, map or other information would be gladly received by PTES.



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using aerial photographs to identify orchards

The physical characteristics of traditionally managed orchards compared with those managed intensively are quite obvious on aerial photos. The linear planting of fruit trees is easy to identify and, typically, traditionally managed orchards are less densely planted than intensively managed ones as can be seen in the pictures.



Aerial view of traditionally managed orchard highlighting big trees that are widely spaced.



K Perspectives: Licence Number UKP2005/2 (2011)

Aerial view of intensively managed orchard highlighting planting at high density with smaller tree stock and bare earth beneath the trees created by herbicide input.