ORCHARDS EAST

RECORDING CONSERVING CREATING

June 2020

Orchards East Granted an Extension!

Tom Williamson, Joint Chair

The COVID epidemic, as well as disrupting the lives of millions and threatening the entire economy, could not have come at a worse time for Orchards East. The project was due to end in August: the spring and early summer were to have been devoted to the final stages of survey and analysis. But this vital work ground to a halt in March and, in addition, the major conference on the project's results and achievements, which we had planned to hold in Cambridge on July 11, had to be cancelled. All this, as you can imagine, was deeply worrying and depressing for all concerned.

But we now have better news to report. The Heritage Fund have kindly agreed to extend the project until the end of the year! As Howard Jones explains below, this will allow survey work – with adherence to appropriate safety measures – to be resumed, mopping up those remaining areas which have not yet been visited by our amazing band of volunteers. **It will also, virus permitting, allow us to re-schedule our conference for later in the year – watch this space.**

The survey had, until the appearance of COVID, been progressing extra-ordinarily well. Around 150 volunteers have surveyed more than 600 parishes, recording nearly 1,200 surviving orchards but also, sadly, well over 5,000 which have been destroyed. This is invaluable research. It has allowed us to select a sample of orchards for more intensive examination; and it is providing us, for the first time, with hard evidence for the scale of the decline in our orchard heritage over recent decades. This latter information will form a vital part of the report which we will present to local

And so – slowly, cautiously and safely – the project is able to move towards its final stages. One last push ….

Parish Orchard Surveys

Howard Jones, Project Manager

Lockdown rules in England have now been somewhat relaxed, opening the possibility of returning to parish surveys, for those wish to do so.

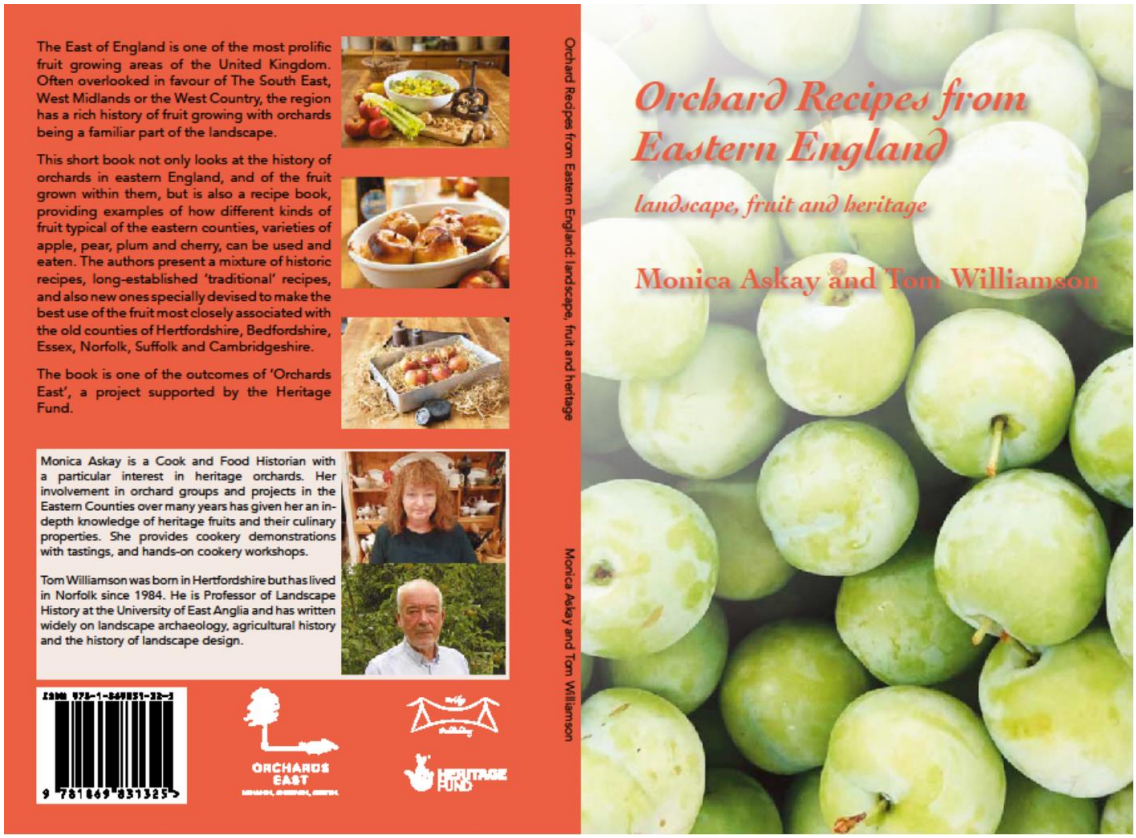
Obviously, we would be delighted to see surveyors out and about once again – there are still lots of un-surveyed parishes – but anyone thinking of doing so must keep safe. Covid-19 is still being widely transmitted right across the country; everyone should keep up to date with, and follow, the latest advice, as communicated by Government scientists. Remember to maintain physical distancing at all times – which, as we all know, means keeping a minimum of 2m from other people. If you are in a group with particular risk factors, then of course make sure you follow any specific advice that pertains to you.

After the hiatus in surveying, also remember some more general good sense rules for outdoors activity – plan your route, let someone know where you are going and when you'll be back, take a charged mobile phone, water and appropriate clothing. I think currently it would be better not to knock on the doors of properties with orchards belonging to people whom you don't know – one doesn't know if someone is shielding or self-isolating. Do your best to record the orchard's details from outside the property… also known as peering over the hedge!

Thanks to our extended project time frame (thank you Heritage Fund), we can continue with surveys through summer and autumn. People who have maps and survey packs to hand at home should please make a start on these first. I envisage it might be quite a slow process getting hold of new maps at present. However, anyone who is new to orchard surveys and would like to get involved, or experienced surveyors who need new maps or more forms, should let me know.

Please let me have any completed returns by the end of November 2020. If in electronic form, please email to Howard.Jones@uea.ac.uk If paper copies, drop me an email and I let you know where it is best to send them – I'm still working from home rather than the campus right now, but that may change.

It's a shame we missed the best of blossom season. At least there is now fruit swelling on the trees, solving the age old conundrum of whether one is looking at an apple or pear tree.



A New Book!

One casualty of the COVID epidemic has been the publicity for a fascinating new book, published in March but without the intended fanfare, launch events and the like.

Written by Monica Askay, the noted food historian and prominent member of the Orchards East team, and landscape historian Tom Williamson, 'Orchard Recipes from Eastern England' discusses the history of orchards and fruit growing in the various counties of eastern England and presents a range of recipes, showing how the traditional varieties associated with each can be used to create delicious and nutritious meals.The subtitle of the book – Landscape, Fruit and Heritage – emphasises the rich and complex connections between history, environment … and food!

Copiously illustrated in full colour, over 100 pages long, but retailing for only £9.95, the book is a bargain…. Copies can be ordered online at: //www.poppy-land.co.uk/products/B83132.

Apple Days

We will circulate details of any Apple Day events later in the year when, hopefully, arrangements can be made with more certainty.

In the meantime, we hope you can enjoy some peace and tranquility in your own, community or neighbourhood orchards.

Orchard Biodiversity Surveys

Paul Read, Joint Chair

When Orchards East set out to survey the wildlife in orchards, it became clear that very little in depth recording had been done, especially in East Anglia. Baseline surveys were needed to find out what species were present, bearing in mind that Rosacaeus trees (apples, pears, plums, cherries) create the unique character of a European orchard. **So our aim was to identify and record the diversity of species found on the trees, including invertebrates, mosses and lichens.**

The 20 orchards selected for surveying varied in every way: orchard age, tree age, crop species mix, tree density, previous management history, ground flora, aspect and soil type. As more than one ecologist has reported “no two orchards are the same”!

Samples from the 2019 field season are still being identified and, unfortunately, the 2020 survey season did not start in March as planned due to the Coronovirus restrictions. The intention is to seek further funding to carry out the missing surveys in 2021.

Recording saproxylic beetles in orchards

Saproxylic invertebrates are animals that are dependent on dead or decaying wood, or dependent on other organisms that are themselves dependent on dead wood. Many of these species are beetles characteristic of veteran and ancient fruit trees with root holes, dead wood and sap runs. The majority are small, but a few are large, such as the spectacular stag beetle *Lucanus cervus,* the UK’s largest terrestrial beetle at a length of 7 cm.

The surveys were done by manual searching on the trees, using interception traps to catch flying animals and pheromone traps to attract the Noble Chafer *Gnorimus nobilis*, a rare beetle. Our December 2019 bulletin and Spring 2020 newsletter describe the methods more fully and illustrate ecologist Adrian

Knowles using different kinds of ‘pooters’.

Martin Collier, Norfolk’s County Recorder for beetles, found a total of 2,166 beetles and identified 262 species from four orchards in Norfolk. Of these, 79 were saproxylic species and considered to be significant for habitat conservation. Five beetles are British Red Data Book species, 15 have an Index of Ecological Continuity score based on the rarity of the species and 19 are Nationally Scarce. These exciting results reveal, for the first time, the richness and diversity of the wildlife in our East Anglian orchards.

The most significant find was the Rusty Click beetle *Elater ferrugineus*, a large Red Data Book species. The individual was found in an interception trap on a large, ancient apple tree in Suffolk’s Wildlife Trust’s Foxburrow Farm orchard, near Woodbridge. This site has several ancient apple and pear trees.

The Large Fruit Bark beetle *Scolytus mali* is a rare species in the UK, classified as Nationally Notable B. The larvae develop between the sapwood and the bark of freshly dead or dying Rosasceous trees such as pear, plum, apple and hawthorn. Martin recorded the beetle in two west Norfolk fenland orchards on trees over 100 years old.

Pheromone trapping

Orchards East contributed to an innovative research trial in 2019 using pheromone traps to target live males of a single species, the Noble Chafer. A female pheromone has been produced for male chafers to locate, and after testing in Europe, it became available in the UK last year in a trial managed by Dr. Deborah Harvey, Royal Holloway, University of London. The pheromone scent can attract the males, often over very large distances. This large, spectacular and 'Vulnerable' Red Data Book beetle is found in old orchards, although records from East Anglia are extremely rare.

It flies for few days in May or June, snacking on the pollen of plants such as cow parsley. Then it mates and lays eggs in rotting wood cavities in old Rosaceous trees, such as plums and apples, creating a characteristic pellet-like granular frass. We set up 19 traps in old tree orchards across all six counties. However, no Noble Chafer beetles were caught, possibly because of the excessive amount of rain during May and June 2019.

However, other rare species were occasionally found, including the saproxylic Darkling Beetle *Pseudocistela ceramboides,* whose larvae feed on wood fungi within rot holes. This was found as bycatch in a pheromone trap on a decaying pear tree at the Foxburrow Farm site. Although pheromone traps are designed to catch only the target species, occasional bycatch is inevitable.

Rusty Click beetle *Elator ferrugineus* Photo: Mark Gurney at RSPB Minsmere

Left: Noble chafer beetle. *Photo: William Harvey*
Right: Darkling beetle found as bycatch in a pheromone trap on a decaying pear tree at SWT Foxburrow Farm, Suffolk. *Photo: Ray Larsen*

Left: The pheromone traps comprise a tube of pheromone solution hanging beside a transparent vane. The attracted flying beetle hits the vane and drops into the bowl, from which it can be released.These Hungarian traps are normally used for sampling forest pests.
Right: Ray Larsen, a volunteer at SWT's Fowburow Farm, hanging the pheromone trap. This is on the grown-out rootstock of a long dead, but still standing, old pear tree,

The Planting of
Great Wymondley Community Orchard

Cherry and Derek Carter

The Orchard Planting Weekend took place on the afternoons of 1st and 2nd of February. We were really lucky with the weather; the previous and the following weekends would have been impossibly wet and windy. We had a total of 46 fruit trees to plant, a variety of dessert, cooking and cider apples, plums, greengage, damsons, pears, quince and medlar. Many of the trees had such intriguing names as Hitchin Pippin (apple), Ashmead's Kernel (apple), Dabinett (cider), Lane's Prince Albert (apple), Howgate Wonder (apple), Williams' Bon Chretien (pear), Farleigh (damson) and Guinevere (plum).

On Saturday, we were delighted to welcome Prof. Tom Williamson, joint chair of Orchards East and landscape historian at the University of East Anglia and Martin Hicks, ecologist from Tring, Herts and member of Orchards East

A good number of people from the village supported the event and turned out to help with the planting.

On Sunday, we gave a warm welcome to our MP Bim Afolami with his children and County, District and Parish Councillors as well as more people from the village. Everyone got involved with the planting! We had fantastic ‘fruit tree’ refreshments, including Apple Cake, Apple Flapjack and Martin was kind enough to supply Mulled Apple Juice from his orchard in Tring.

Prof. Tom Williamson said “How wonderful to see so many Wymondley people actively involved in planting this orchard. And what a magnificent orchard! It will be a real asset to this lovely village.”

All the trees supplied by Orchards East and the East of England Apples and Orchards Project are now planted, staked and guarded. Every tree in the Orchard is ‘sponsored’ by members of the community. This is an effective way of ensuring that we have working capital for the orchard project’s ongoing needs. Rob Burstow supplied some additional apple trees for which he had rescued grafting material from the Gaping Lane allotment site and once a Victorian Pleasure Garden that was being developed. He and some friends planted them the following weekend. They found what they thought were a few Bee Orchids growing on the orchard site and subsequently we have identified over thirty growing amongst the trees. This gives us an encouraging start to having wild flowers in the Orchard.

The planting was a truly successful community event and we’re looking forward to working together to ensure the future of our orchard. We have now cut grass pathways through the Orchard and it has been heavily visited by people from the village and the surrounding area during the Lockdown as part of their daily exercise.

Planting Saturday 1st February with Prof Tom Williamson, District and Parish Councillors, Martin Hicks, sponsors and residents.

Planting Sunday 2nd Feb 2020 with Bim Afolami MP, County, District and Parish Councillors and residents.

The orchard at Museum of East Anglian Life

Paul Read, Joint Chair OE and Jenny Cousins, Director MEAL

When the Orchards East project, supported by the Heritage Fund, commenced in February 2017, one of the objectives was to help organizations such as councils, schools and landowners to plant a number of regional collection orchards. These aimed to represent a local character, a form of orchard or crop or to be a reference collection of the fruit cultivars once, or still, grown and demonstrating the historic fruit, trees and land use of an area.

It was a broad objective and included examples of the cultivars once extensively grown and liked in that county in traditional farm orchards or in commercial plantings of a period. It could also be a collection of fruit trees managed in the form of a particular land use, such as a farm orchard; a walled garden; a commercial fenland orchard of 1900; a cherry orchard in Hertfordshire or its counterpart in the Stour Valley in Suffolk; or a collection of fruit cultivars that originated in a county.

The discussion about a new orchard for the Museum of East Anglian Life (MEAL) at Stowmarket was a chance for their Director, Jenny Cousins, Lisa Harris (Collections and Interpretation Manager) and Paul Palmer (Estate Manager) to discuss the possibilities with Orchards East. The orchard would be grazed with the Museum's sheep, which pointed us towards a traditional farmstead orchard. This meant specific tree support and protection and a high crop diversity typical of Suffolk farmstead orchards where there would often be only one tree of each variety. It was also essential that each tree should tell a story. The Museum is in the process of repositioning itself to become the Museum of Food and wants to connect people to where their food comes from and how it is grown. An orchard was seen as an essential piece of this jigsaw.

The site is large for a farmstead, with over 60 trees planted, comprising over 60 varieties. The mix is shown in Table 1. Each tree is protected by a three-post and rail protection against sheep (and local deer) grazing. This will probably be necessary for the next twenty years at least.

Table 1 The mix of fruit trees

Apples	30	Medlar	1
Barberry	several	Mulberry	1
Cherries	4	Pears	8
Cobnuts	4	Plums	7
Damson	1	Quince	2
Elder	several	Walnuts	2
Gages	3		

All of the trees are grafted on traditional vigorous rootstocks and will make substantial trees with a long life, growing above the reach of most sheep breeds. The only exceptions are the cobnuts, elder, barberry and a seedling walnut, all on their own roots.

The ground flora is grassland throughout. This format represents a period before WW2, before the modern use of dwarfing rootstocks for most fruit trees, which, while suited to gardens, are not generally tolerant of the competition of permanent grass up to their trunk.

The pear trees are grafted onto pear rootstock and potentially have a life of over 100 years. Today most pear trees sold are on quince rootstocks which reduce the tree's potential vigour to less than 15% of a pear's achievable height. In keeping with most traditional Suffolk farmstead orchards, their pruning will be relatively minimal, although the height of pears and some apples does need to be controlled. The form of the tree is probably what most horticulturalists would call 'half-standards', with the lowest branches about 1.2-1.5m above the ground, just above the temporary tubular tree protector, in keeping with the traditional sheep, geese or chicken grazed orchards of Suffolk's past. These are much lower than the "standard" trees of the cattle-grazed West Country apple and cider orchards with 2m or more of trunk. You could say our eastern region's "standard", is the West Country's' half-standard.

Throughout the Suffolk, Norfolk and north Essex claylands, many of these old traditional farmstead orchards still exist, while many have also been recreated recently. In the eastern region's fenland, the orchards planted in the late 19th to early 20th century were not originally grazed at all, although the trees were on the same vigorous rootstocks, but were pruned to branch as low as 30cm (1ft) above the ground so as to be easier to pick. Many of these huge old apple trees are still in existence in the Cambridgeshire and west Norfolk fens, although the same orchards in the NW Suffolk fens have almost all been grubbed out.

The Museum of East Anglian Life's new orchard with its mix of half-standard trees of diverse cultivars represent a much older tradition (just about still with us) of feeding a farm family, its farm hands and day labourers, with fruit over as much of the year as possible. This was achieved by growing long keeping apple and pear varieties, preserving fruit by bottling and cyder making (Suffolk's spelling), and maybe selling some high value nuts, long keeping apples or cherries in the local market.

Left The first trees being planted in Feb 2019. As they are planted. the 3-post protection is built around each tree. Here the back-breaking, arm-wrenching task of pounding in the posts with a heavy post rammer is replaced by a petrol driven post-driver!
Right Egremont Russet, producing its first apple in 2020.

The interpretation board at the entrance to MEAL's new orchard.

Stay safe Everyone! To contact us email howard.jones@uea.ac.uk or g.broad@uea.ac.uk

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