For publication

A National Orchard Inventory for Scotland

Area Report for:
East Ayrshire

Collaborating Organisations:
Scottish Smallholders Association

Report version 1.0 dated April 2018

prepared by
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Project national partners:
Scottish Natural Heritage
Orchard Research & Enterprise CIC

Funded by:

Scottish Natural Heritage
Dualchas Nàdair na h-Alba
All of nature for all of Scotland
Nàdar air fad airson Alba air fad

This document reports on work carried out under contract to Scottish Natural Heritage.

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Acknowledgements

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Members of the project Steering Group who have given their time freely to make this a better project. Susan Hamilton, RCAHMS; Melissa Simpson, National Trust for Scotland; Jillian Donnachie, Woodland Trust; Mike Strachan, Forestry Commission Scotland; Robin MacLean, Scottish Government, Iain MacDonald & Lachlan Renwick at SNH, and Judy Dowling, Tree Register of Britain & Ireland.

Lorna Gibson, former GIS Officer at Crispin Hayes Associates who made a first deskstudy assessment of nearly two thousand sites across Scotland.

Thanks for all your contributions

Summary

Keywords

orchard; fruit tree; top fruit; apple; pear; plum; undercrop; EUNIS G1.D4; East Ayrshire

Background

There has been growing interest in traditional orchards in Scotland for a little over a decade. This interest has a great breadth; from cultural heritage and horticultural practice, to historic varieties and the gradual disappearance of this unusual Scottish habitat.

The National Orchard Inventory for Scotland Project aims to create a comprehensive orchard inventory for the nation. This has probably not been attempted for over a century, perhaps since the 1885 Congress. The rationale that underpins this aim is that an Orchard Inventory will form the basis for addressing a number of issues linked to the decline of orchards over the last four decades and create a strong foundation for their revival. Simply put, we need to know what's where in order to change the downward trajectory.

The project began in 2013 with a pilot study which since then has received funding support from Scottish Natural Heritage. The programme has grown since that time to add further phases so that at the time of writing more than half of Scotland's orchards have been surveyed and recorded. The national project is reported separately, and is available at the project website www.scotlandthefruit.org.uk

Main findings

A total of 32 orchard sites were surveyed, of these 20 were found to be intact orchards.

The total acreage of orchards remaining in this area was found to be 5.3 ha and the average area of each orchard was 0.4 ha.

Most of the orchards contain less than 30 trees and are in a domestic setting. One large orchard of commercial size is recorded.

Though apple dominates, most orchards contain a diverse mixture of fruit species, reflecting their domestic use.

The tree stock is heavily skewed to new plantings. There are few mature orchards.

Veteran tree features indicate a few orchards contain high levels of biodiversity, while most do not.

Less than half the orchards have some or active management, and this is at a lower rate than typically found elsewhere in Scotland.

Many orchards have new plantings and younger trees, and this shows orchards renewal is occurring.

Soft fruit and also vegetables are not grown in a significant number of orchards. This is at a lower level than most of Scotland.

Most fruit is used for family and friends, some is sold commercially and some is left to waste.

Livestock are grazed in small minority of orchards, these being fowl and horses.

To conclude, East contains a small number of small orchards, some of which are actively managed and from which some fruit is used within the domestic setting. There is one large orchard at Dumfries House. Most of the historic large mature orchards that would have previously existed at country houses and farms were found to be no longer present.

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1 INTRODUCTION

There has been growing interest in traditional orchards in Scotland for a little over a decade. This interest has a great breadth; from cultural heritage and horticultural practice, to historic varieties and the gradual disappearance of this unusual Scottish habitat.

The National Orchard Inventory for Scotland Project aims to create a comprehensive orchard inventory for the nation. This has probably not been attempted for over a century, perhaps since the 1885 Congress. The rationale that underpins this aim is that an Orchard Inventory will form the basis for addressing a number of issues linked to the decline of orchards over the last four decades and create a strong foundation for their revival. Simply put, we need to know what's where in order to change the downward trajectory.

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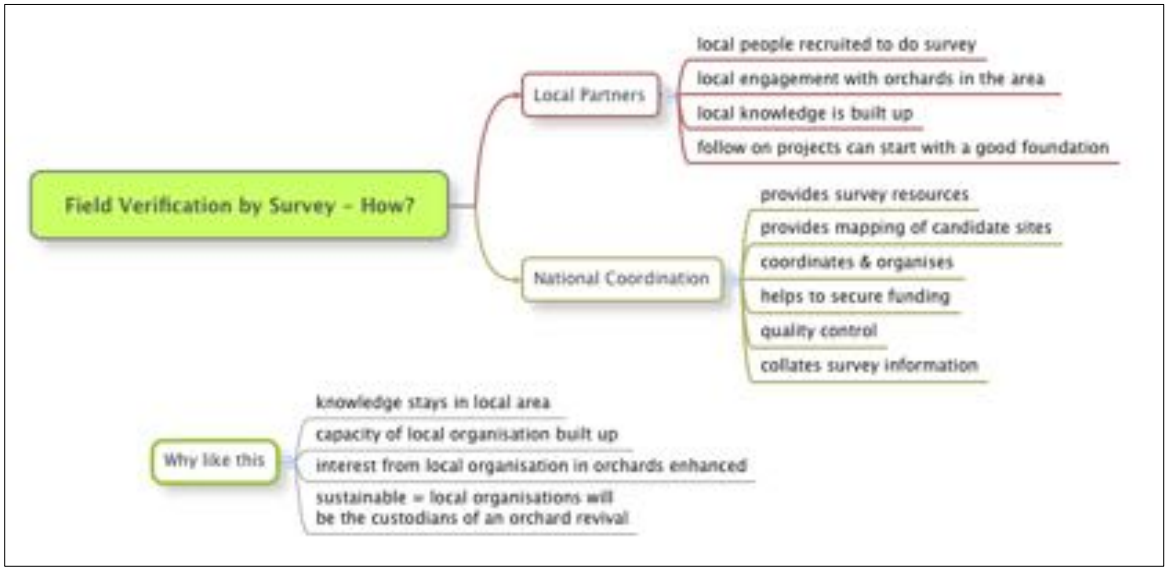
This document is one of a series of reports that provide results for particular areas, which are usually coherent with the local authority domain. The purpose of producing these 'Area Reports' is to make results relevant to local organisations and local people. It is intended to raise awareness about their orchards and their cultural heritage, and to identify issues that may be contributing to their decline and, in some cases, revival.

2 COLLABORATION

The national project is structured to partner collaboratively with local groups. Resources, systems and coordination are provided nationally, fieldwork is organised and carried out by the local collaborating organisations.



The graphic shows what each partner brings to the field survey work. The reason why we have structured the project like this is also shown. We want knowledge to be retained locally so that capacity is built and a sense of ownership and interest in local orchards is strongly established. We think this will be the most sustainable way to create a foundation for an orchard revival.

As a project partner, the local collaborating group has a copy of the data collected in their area.

3 BACKGROUND TO THE AREA

East Ayrshire comprises Kilmarncock and the former hinterlands of the old Shire county. Much of this is hill country. It has a significantly higher rainfall than the coastal fringe, and Ayr especially. As such is it well suited to the dairying that Ayrshire is well known for. It is less suited to orchards, but in the right situation - shelter but with ventilation, good aspect, good soil - fruit trees will also do well here.

One of Scotland's well known orchard experts, John Butterworth had his organic fruit tree nursery in a walled garden of an estate near Ochiltree for many years, until around the turn of the millenium.

Along the Lugar Water from John's nursery is the newly restored walled garden of Dumfries House by Cumnock. The restoration includes a significant planting of fruit species over 100 trees in all, set within other formal planting. Dumfries House is included in this Inventory of Orchards.

4 METHODOLOGY

The methodology for the project (of which this area is a subset) is described in Annex 2.

To summarise, a two stage approach is adopted.

1. A deskstudy is carried out, looking for orchard sites from mapping, historical data, existing surveys and other sources. This is collated on a Geographical Information System. Each site is given a unique number and a location map created. Nationally the deskstudy considered 1859 sites of which 1728 were considered candidates for field verification.

2. Field verification. Each candidate site was visited and surveyed by a volunteer surveyor. Photos were taken where possible. The survey results were submitted to the national project.

Finally the results are collated and reported.

The Local Facilitation for this area was provided by Lee Renouf-Miller of Scottish Smallholders Association.

Time input for field verification work is reported in Annex 2.

5 STRUCTURE OF RESULTS

The results are structured in this report in three distinct sections:

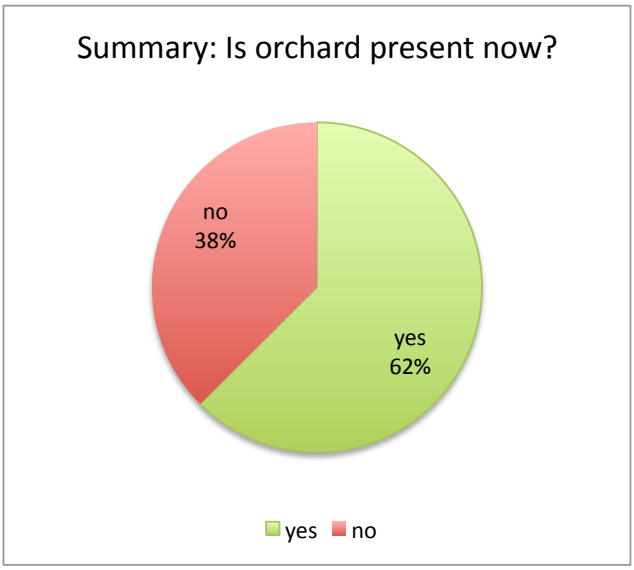
- Numeric and classification information (quantitative), together with overall conclusions.
- Anecdotal and comment information, qualitative aspects.
- Representative photo gallery. A collection of photos with descriptive captions that illustrate the orchards of the area.

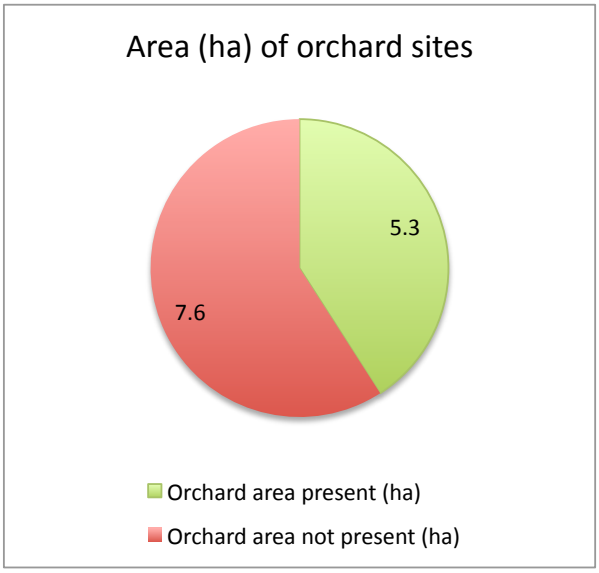
Photos have been submitted for a total of 27 sites.

6 NUMERIC AND CLASSIFICATION INFORMATION

Quantitative Data Results

We have analysed the data collected and have turned it into a more presentable form by creating a graphical output. In the section below, those graphs are presented with a commentary.





The graphs above show the headline results of whether orchards were found to be present on candidate sites (left pie chart), and the total associated area (right pie chart).

Field surveywork was completed for this area for 32 candidate sites. Of that number, 20 sites were found to have an orchard present and of those 13 were new orchard sites, the balance resulting from our deskstudy. Our definition of an orchard is a collection of 5 or more fruit trees in proximity. By 'new sites' we mean sites not identified in our deskstudy - so new to us. Many, though not all, are recently planted orchards.

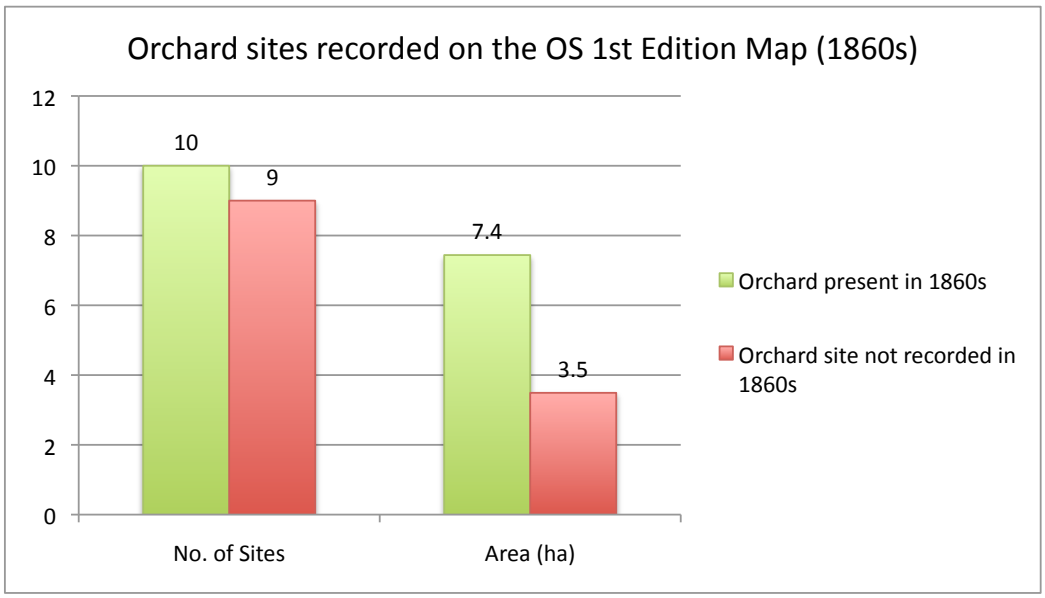
The fieldwork also found that a total of 12 sites were not orchards at the time of survey. Most of these latter sites were identified in the deskstudy as likely to be orchards from mapping, historical, or previous survey data. As such it is likely to represent some of the loss of orchards.

A further nill site(s) were visited where it was not possible to gain access or make a determination as the existence of an orchard.

In terms of the acreage of sites, the fieldwork found that 5.3 ha of the orchard sites were present in East Ayrshire. This represents 41% of the total area of deskstudy + new orchard sites. The average area of an orchard is 0.4 ha.

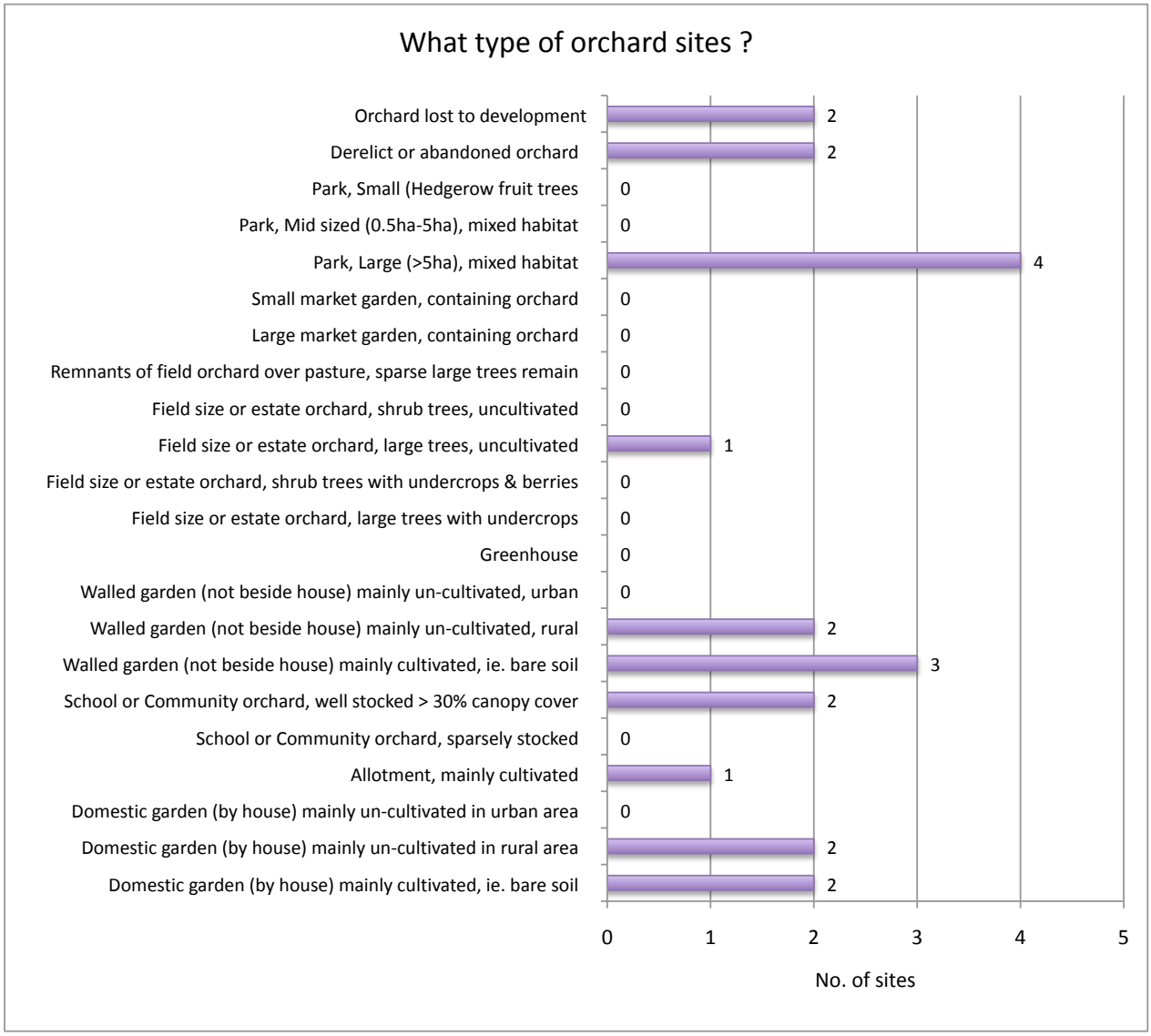
The graphs show that there has been some loss of orchards, both in terms of numbers and total area. It has been partly offset by newly planted orchards. The loss is significant because it has occurred in many of the large mature orchads that have historical as well as high biodiversity value.

For a historical perspective on the significance of this trend we have also analysed the OS 1st edition data which was assessed for each site during the deskstudy. The OS 1st edition was surveyed in the late 1850s and early 1860s, and covered most of Scotland and was very detailed. It represents a good resource for historical analysis.



In East Ayrshire a determination for the presence of an orchard on the OS 1st Edition was made for a total of 19 candidate sites. The graph shows that of these, a total of 10 candidate sites were an orchard. The total area for these orchard sites was 7.4 ha in 1860s.

The graph shows that there was an increase in the number of orchard sites since the 1860s in East Ayrshire. It shows that the acreage increased modestly from that time. However this does not indicate that all these sites still exist today as the previous graph shows that only 5.3ha of orchards were recorded in the survey fieldwork.



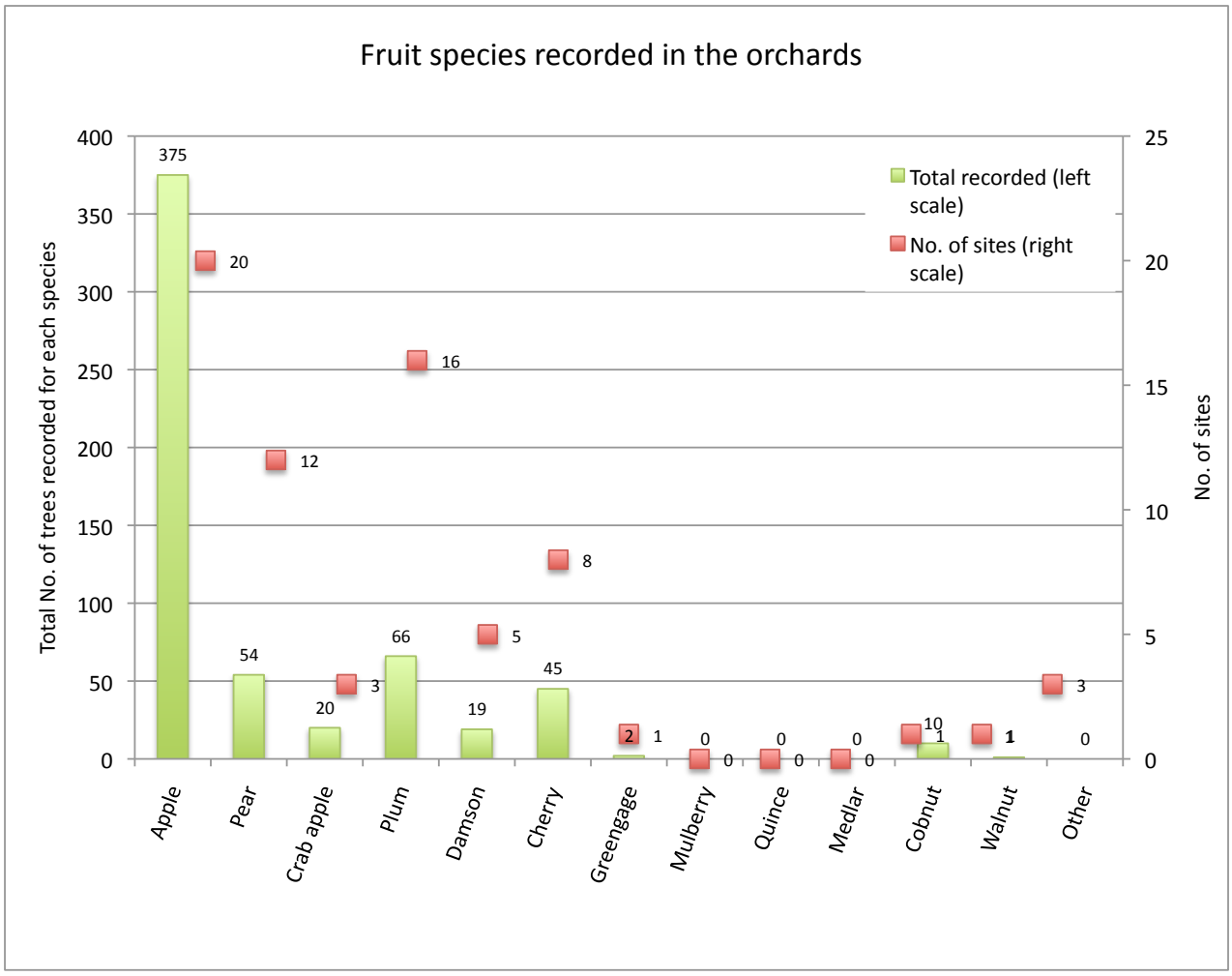
The type of site was recorded as a simple metric that can give a powerful insight into the type of orchard being considered, as well as assisting in the habitat classification using the European Nature Information System (EUNIS). Hence the apparent complexity of site types.

The graph shows the three largest classifications are for types of walled garden. The second largest classification groups are park orchard and domestic orchards by houses. This is unusual in Scotland as domestic orchards are numerous in most areas.

Four derelict or abandoned or lost to development orchards were recorded.

Stewardship and Agricultural Payments

In the area being considered, it has been reported that no orchard(s) are part of a Stewardship scheme. In terms of orchard sites where an agricultural subsidy is being claimed, the survey found 1 orchard(s) were registered within the Integrated Administration and Control System (IACS) which relates to EU agricultural payments. This figure is probably an under-representation as there is some incentive to classify the land as other than an orchard.

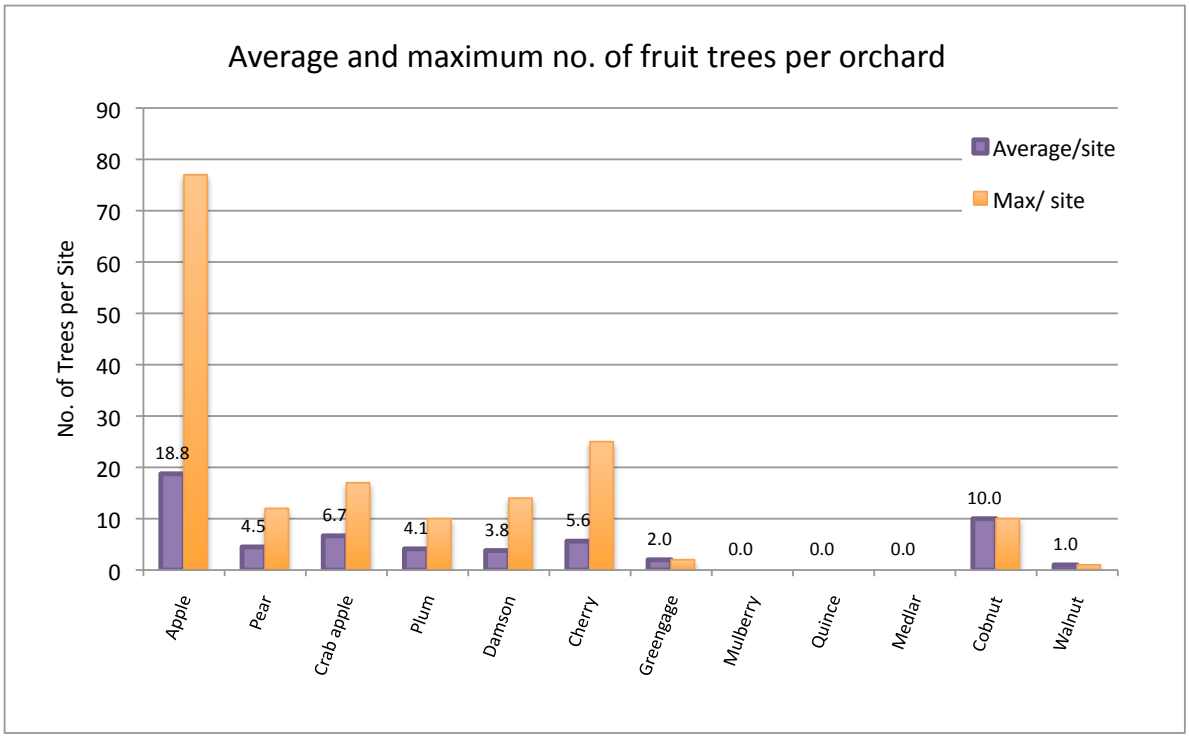


A broad range of top fruit species were recorded to gain a full picture of fruit produced. The green columns (left scale) represents the total number of trees recorded for each species in the area being considered. The red markers (right scale) represent the number of orchards in which that data was collected. In some cases it was not possible to determine numbers for individual species in an orchard, so the total number of sites surveyed is likely to be greater than the maximum number of sites recorded here.

The total number of individual trees recorded in the survey was 592. We also recorded a size range for each orchard. An estimate of the total number of trees from this size range data is 558. This demonstrates reasonable agreement, given that number of individual trees is not always recorded in every orchard.

The graph tells the story of this area. The apple dominates in the orchards recorded as part of this survey, being present in all 20 orchards. Plums are the second most numerous species followed by pear and then cherry.

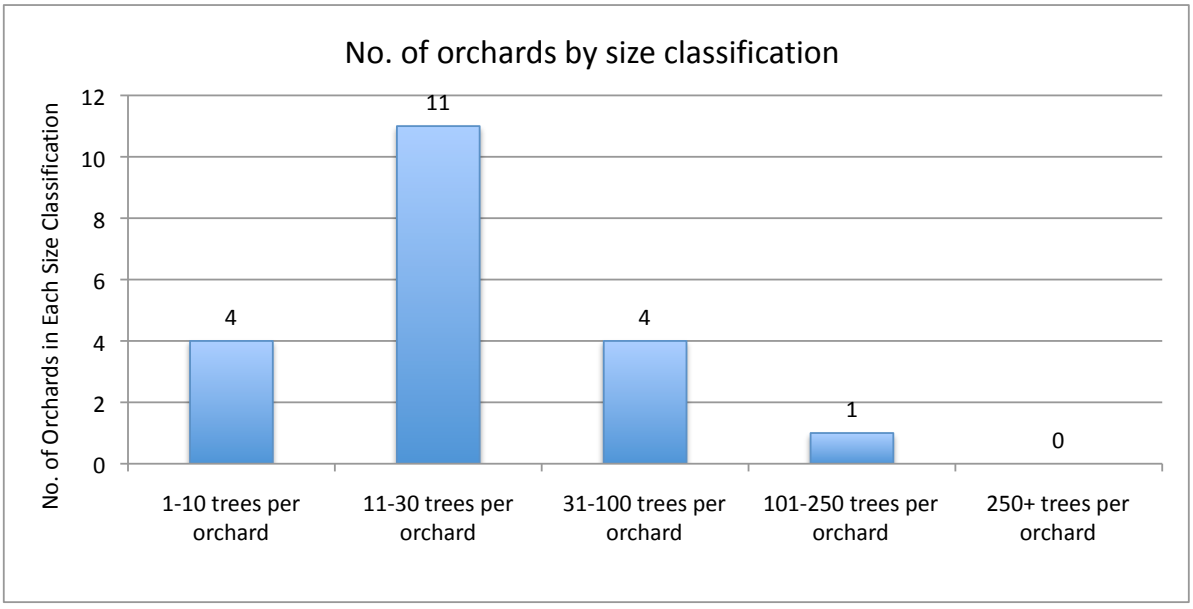
Of the more unusual species, there are few recorded apart from cobnut in one of the orchards.



The graph above represents the average and maximum number of each species in the orchards of the area. It does not represent the typical stocking of an average orchard.

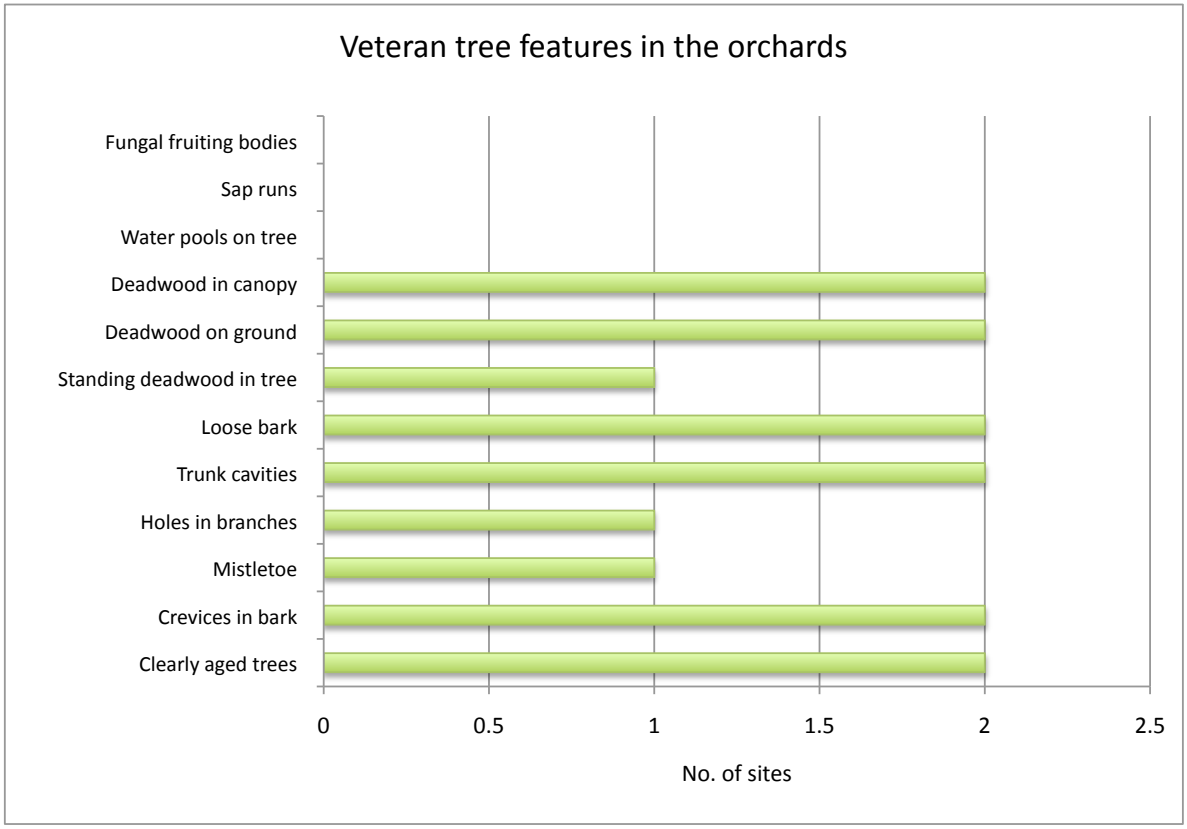
The short purple column on the graph show the average number of each species in the orchards. The taller orange columns show the maximum number of a species found in any orchard in the area.

The high numbers for the orange columns reflect the few larger orchards. The purple (average) provided a more realistic picture of the typical contents of an orchard in this area. This shows that orchards are typically mixed, with apple as the main species, and then a number of other species in support.



As well as asking how many individuals of each species of tree were present, we also wanted a general sense of the size of an orchard, and therefore size range classification was recorded, as shown in the graph above.

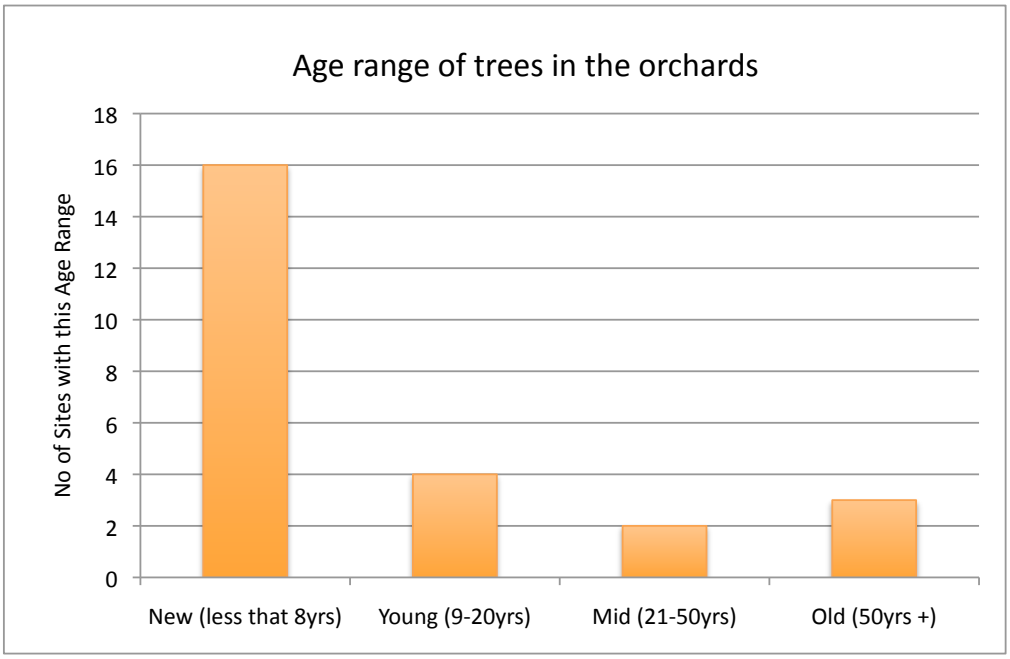
The graph shows that vast majority of orchards had 30 fruit trees or less. A few have up to 100 trees. Only one orchard have more than 100 trees, which we consider to be a commercial size, but in this case was Dumfries House. There are a lower number of large orchards than many other parts of Scotland, though it is not surprising given the growing conditions of this area.



Veteran tree features are used as biodiversity indicators. Therefore the more veteran tree features present, the higher the likely biodiversity in the orchards. There was a total of 15 veteran tree features recorded in the orchards in this area. This demonstrates significant biodiversity.

Its useful to assess how mature the trees in an orchard are. We consider trees over around 50 years old to be mature. Mature trees of older varieties generally are more established in terms of their steady yield. However, there is also potential for more disease. A further dimension is that orchards with mature trees have greater biodiversity potential.

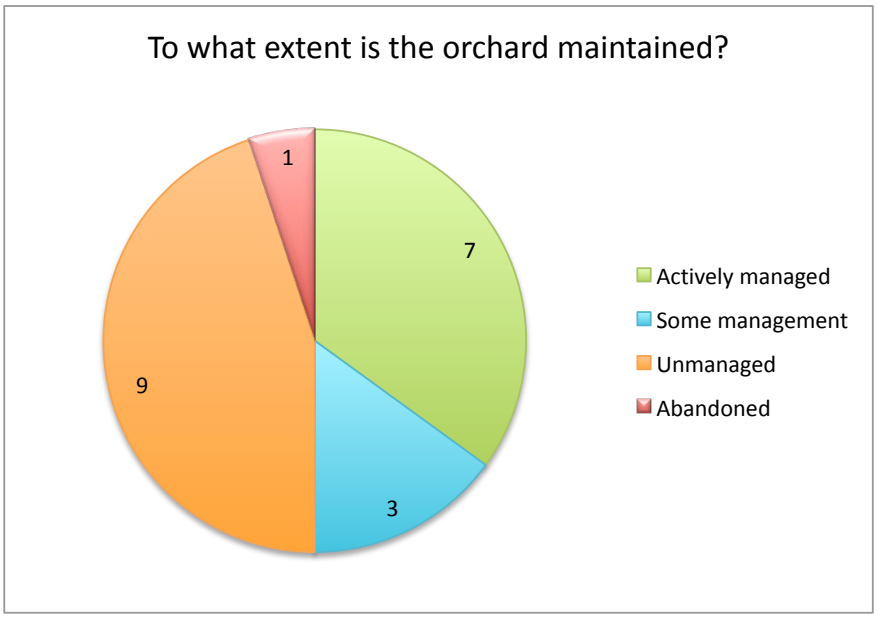
The average proportion of older trees for the orchards was 16%. This figure was calculated from the 17 sites where data was recorded. There will however be a great variability with some orchard being entirely mature, and some being entirely young.



The age of trees contained in each orchard was recorded. Ages were grouped into 4 categories to simplify the assessment in the field.

Each orchard may contain a number or all the age ranges reflecting the plantings over the years. Predominantly old trees indicates a mature collection of orchards. If no new or young plantings are recorded in an area, this indicates that the presence of orchards in the area is potentially threatened.

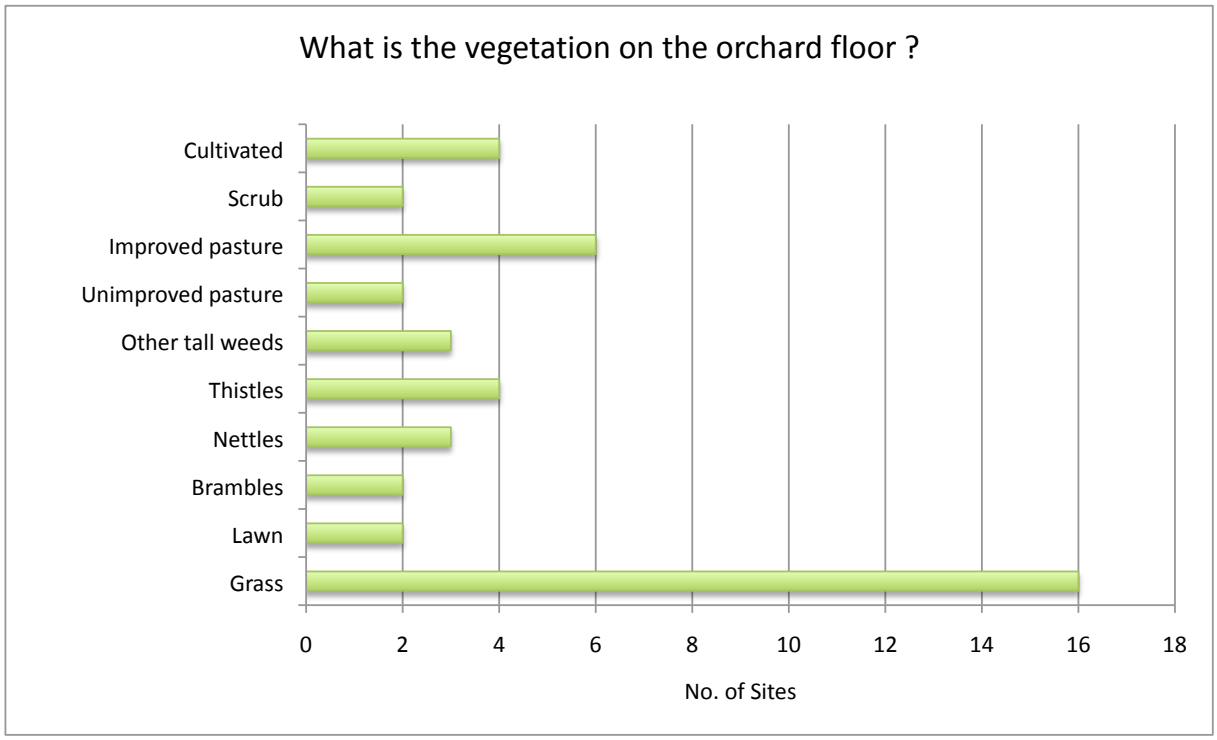
The graph is heavily skewed to the left showing that the majority of orchards contain only new plantings. There are very few mature old orchards, which correlates with low numbers of orchards in which biodiversity indicators were recorded.



The extent of orchard management is given above. A total of 20 sites have data recorded for them. The figures in the chart are the number of orchards determined to be in each particular category.

The graph shows that only around half of orchards have some or active management. Many orchards are unmanaged. This demonstrates lower levels of orchard management than are found in many parts of lowland Scotland.

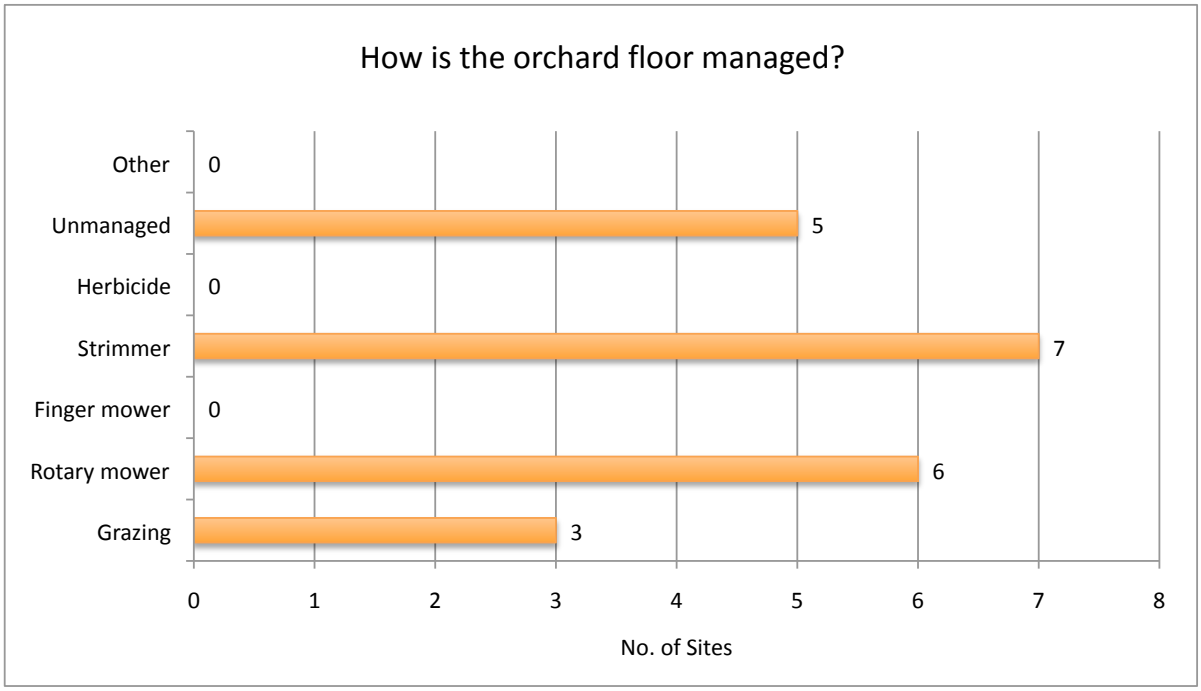
High proportions of abandoned and unmanaged orchards are an indication that there needs to be a local focus on raising awareness on maintenance issues. Maintenance skills project are also a popular way of building capacity locally.



The orchard floor is an important part of the orchard habitat, both for biodiversity but also as a further element of the growing space. The generic term used across various habitats, is the 'field layer'.

Each site may have several field layer types, for example parts of it may be mown into a lawn while other parts are unimproved pasture with thistles. We are also interested in orchards that are cultivated as this was a practice that was once much more common.

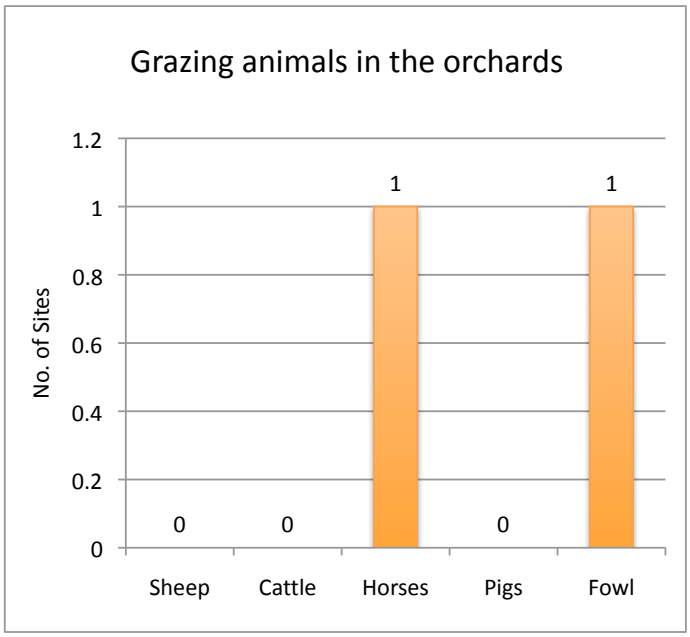
The graphs shows that though many orchards have some sort of managed grass as a field layer, there are a few that have various tall weeds and scrub.
There are also a small minority of 4 orchards that are also cultivated showing a more complex use of the land.

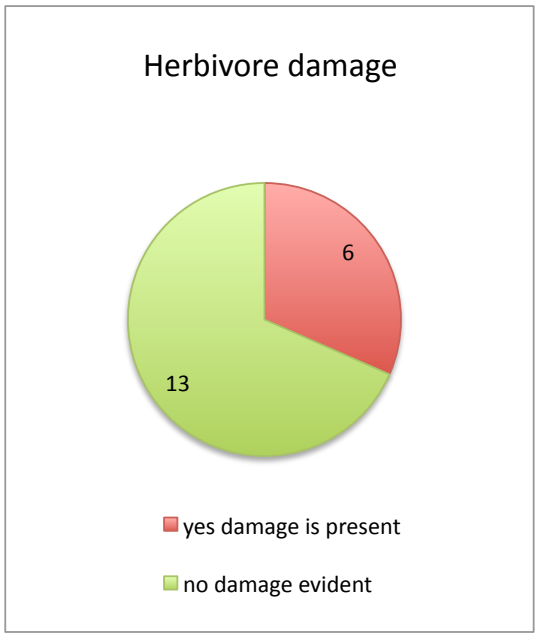


Each orchard can record more than one method for managing the orchard floor. The reference to the finger mower may be unfamiliar. This is a type mower that has a flat cutter bar like a hedge trimmer. The reason for recording this separately is that there is some evidence that this sort of mower does far less damage to invertebrate life in the sward than a rotary mower, which tends to suck up and eviscerate the sward contents.
In our experience herbicide use is under-reported by orchard keepers.

The graph shows that the common method of management is by strimmer, followed by rotary mower. Some orchards are grazed.

Five orchards do not manage their field layer.



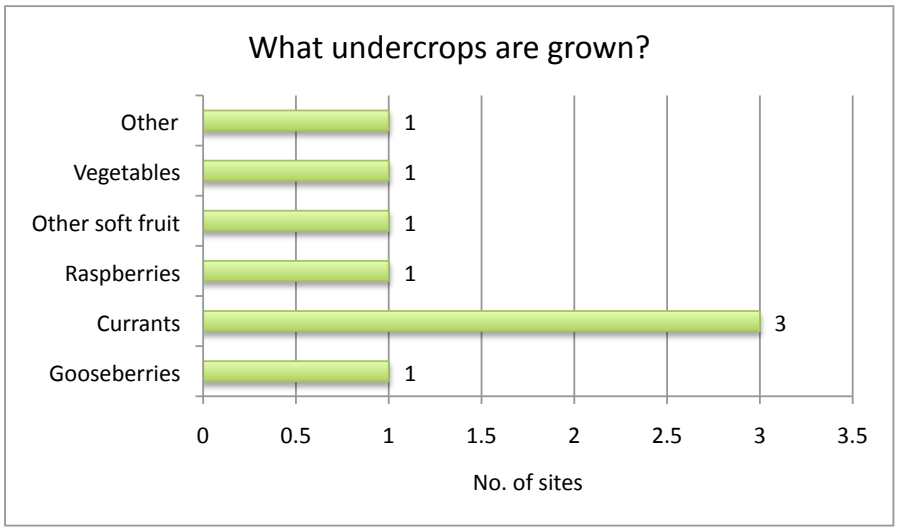


Each orchard can record more than one type of animal grazing the orchard floor.

The graph (above left) shows that fowl and horses are present in an orchard.

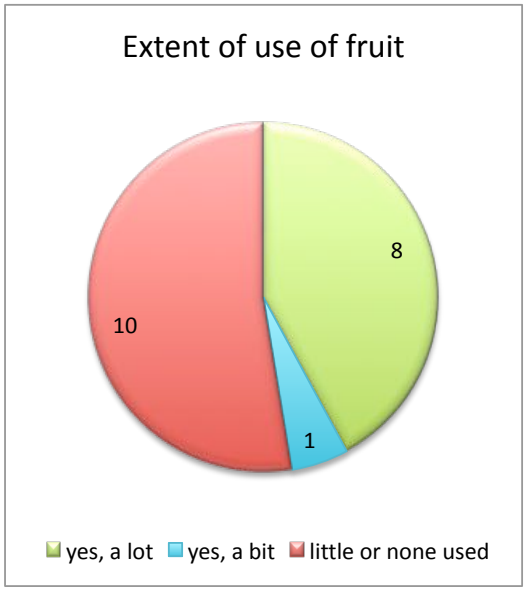
The pie chart shows that where recorded, herbivore damage is evident on a significant minority of sites. Some of this could be as a result of poaching by livestock.

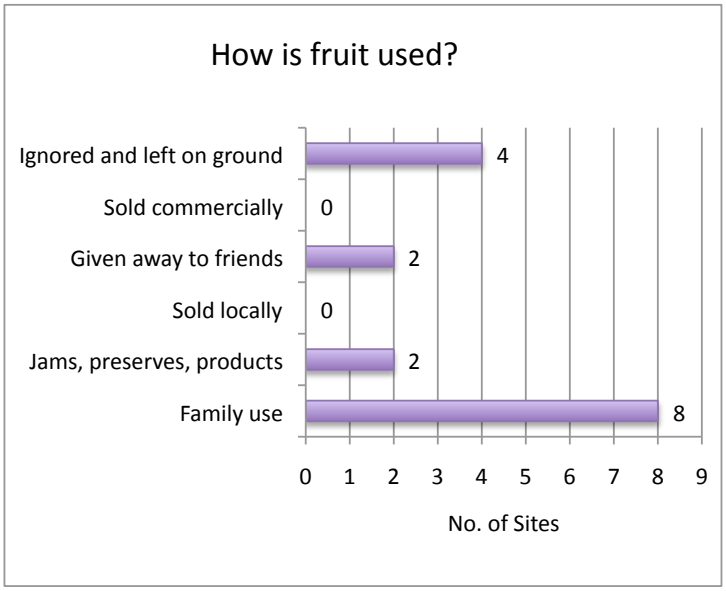
Not all recorded damage can be attributed to grazing livestock, as deer and rabbits also play a role.



The growing of other crops within an orchard – known as undercrops - was formerly a much more common practice than it is today. Each orchard can have more than one type of undercrop recorded.

The graph above shows that undercrops are rare in this area. There is a higher level of undercrops in many other parts of Scotland.





The use of fruit was determined for 19 sites. Though the categories in the pie chart are fairly broad, they do give a clear indication of the proportion of orchards that are well harvested. It also gives an indication of the scale of the unused local resource.

The chart shows that less than half of orchards report that they use the fruit a lot. More than half use little or none of their fruit. This is a lower level of use than is found in much of the rest of Scotland.

The bar graph (above right) provides detail on how fruit is used. An individual orchard can record multiple uses. So while the family may use some, they may also leave unused fruit on the ground.

The graph shows that family use is the main outcome for many orchards. Levels of jam, preserves and products are lower than other parts of Scotland.

A significant minority (4 orchards) ignore at least some of their fruit and leave it on the ground.

7. ANECDOTAL AND COMMENT INFORMATION
A qualitative data summary

7.1 Introduction

Anecdotes and comments add a lot of colour to the survey of orchard sites. They are more valuable than they may first appear because they help interpret individual sites and whole areas in relation to their orchards. They also form an important record of local oral history that may not be recorded elsewhere; this may be about the family and its own orchard, or it may be about the characteristics, history and purpose of orchards in the area, and how this formed a part of its economic and cultural heritage.

7.2 Structure and Presentation

Guidance and training for the field surveywork encouraged the collection of anecdotal history, comments, pertinent information relating to the orchard being considered. This was written up on the survey form and submitted to us in that way.

The data presented below are a selected summary, representing what we consider to be the most interesting aspects of the qualitative data collected. We have identified emergent themes from these data and have categorised them accordingly.

The comments have been been subject to some editing. Our intention is to maintain them as verbatim as reasonable. The editing has been restricted to typos, spelling and minor changes to assist understanding. We have carried out further editing to comply with data protection. We have therefore also redacted content that would enable an individual person to be identified.

7.3 Anecdotal and Comment Data Categorised by Theme

Surveyors' comments do indicate a range of new orchards of several types planted recently in the area with only a handful of mature orchards or orchards boasting mature specimen trees.

Among the newly planted orchards, surveyors noted a number of new community or school orchards. A couple of them were planted as part of larger woodland or wildlife planting, such as the three sites of Mainshill Community Woodland & Orchard and a Cumnock Community Woodland and Orchard. There were 4 new orchards planted for community use throughout the Dean Castle and Country Park (see photos):

[Mainshill carpark] The plum trees are planted to the north side of the car park against a fence. The cobnut trees are planted to the East of the car park. More trees may be planted 2016. The plum trees are bearing some small fruits this year and are being foraged by individuals in the community. EAYR0030

[Mainshill Community Woodland & Orchard - East] This orchard area is part of a much larger community woodland planted with hundreds of native broadleaf trees. EAYR0103

[Mainshill Community Woodland & Orchard - West] This orchard area is part of a much larger community woodland planted with hundreds of native broadleaf trees. It neighbours dense sitka forest. EAYR0104

[New Cumnock Community Wildlife Garden] This is a publicly accessible community space and suffers some vandalism. [...] EAYR0026

However, one site identified in the desk study as a newly planted community orchard, turned out to still be an empty field:

The green field site is a proposed community orchard, but just grass at present. I could not find out if any project has been approved or will proceed. The Deputy Head of Dalrymple Primary School thought they might be going to use it, but did not know who the land belonged to. It has a brick sub-station on it. EAYR0027

There was also an impressive example of a newly planted school anniversary orchard and a walled garden regeneration project lead by a community group:

[Asslos walled garden] 1880 walled garden, abandoned partly due to unsuitable location(frost pocket) and changes to Dean Estate. Now leased by Heal the Earth, a community project. Gradually being re-planted by volunteers. EAYR0105

[Dalrymple Primary School 50th Anniversary Celebration Orchard] The orchard was planted by school children to celebrate the 50th Anniversary of the opening of the school. Each individual tree was sponsored by a parent of a school child. A plaque of the sponsors is mounted on a large cairn stone. The trees are only 2 years old and producing fruit. However, vandals have prematurely removed the fruit. The Deputy Head [...] believes Adam Train of John Train & Sons imported the trees from Ireland. There is a substantial polytunnel in the orchard too. EAYR0110

Surveyor comments suggest the area's historic walled estate, castle and farm orchards show a range of the states of maintenance and neglect.

Some historic orchards have been removed a long time ago:

No orchard present anywhere on the estate. The Estate keeper, [...] was happy to help and had in fact considered volunteering. He has a keen interest in fruit trees and plans to plant maybe 20 trees in the near future. One worker seemed to think there may have been an orchard East of the original old castle, but no remains now. EAYR0025

A newspaper article of 1930 records that the once extensive orchard was mainly felled at around that date. The whole site is now dedicated to pastoral use and the old farm [...] is a ruin. Access to the site is difficult. The surveyor is a local historian and used the opportunity to record the site on video and using stills. Visits to the local history centre in Kilmarnock led to a detailed history of this unrecorded castle and barony being written that has been given to the owners and will be published online through Wikipedia, Wikimedia, Facebook and YouTube. Further visits will be made thanks to the co-operation of the farmer. It is hoped that the retired farmer will be available for interview and further verbal history recorded and passed to the local history centre at the Kay Park in Kilmarnock. EAYR0020

I spoke to an older couple at the House, who told me that the House itself sold off much off its lands some time ago and currently there is just a small garden surrounding the house which is laid to the normal flowers and shrubs.
The woodland to the South West now belongs to the [farming family]. I [...] spoke to [...] the current owner, who said there was no orchard there these days. There might be a crab apple or two but that was about it. His father had bought the land over 30 years ago and there was an area called "The Orchard" but even by the time they bought it there were no trees in it; not even any roots. Nowadays it is just a square patch of grass. EAYR0015

There were a couple walled garden estate/castle sites with numerous mature trees but in a state of some neglect:

[...] Spoke to employed gardener [...] who showed me around. There are numerous fig trees growing through the broken roof of the lean-to glass houses.[...] I could see the Nectarine & peach trees near the entrance.[...] EAYR0018

The estate is now managed by [...] brothers who are diversifying the income through an equestrian learning centre, B&B, holiday cottages, etc. They have started some limited work on consolidating the walled garden walls. A single recent planting may suggest a growing interest in the orchard - the possible planting of a beech tree barrier was suggested.
In the 1940s the then intact walled garden was carefully and professionally managed with a number of espalier fruit trees - probably of several varieties.
The open orchard in the corner of the walled garden once had a secure barrier but this is long gone.
Horses graze the old walled garden site - no internal fencing is in place. EAYR0021

At other sites some orchard regeneration has taken place recently (also see photos of newly landscaped estate grounds):

There was an old orchard planted in the walled garden (which no longer has a wall) but it appears that these were all felled, perhaps apart from the plum tree. Date of felling not known but present owners have been there for ~13 years and orchard was not there when they took ownership. Evidence remains of stumps left. New plantings are being put in this old orchard area. EAYR0022

A small number of domestic orchards were recorded, including a very impressive mature orchard and newly planted domestic gardens (see photos):

This is a truly remarkable orchard.
John Butterworth has visited and identified some of the apples.
New = 1 Victoria plum 2007, 7 Pear 2007.
All others were old when owner's parents moved in 1933. EAYR0107

Only one new smallholding/croft field orchard was noted:

Orchard planted and being expanded as part of smallholding. Interest since having apple trees in childhood garden. Sheep damage to initial plantings caused some loss so fenced off. Quite a lot of damage this year to young trees by hare damage. Steep learning especially on tree protection. Keep bees in same area and are cultivating bee friendly flowers amongst trees. In local area also have planted hazelnut trees grown from seed but not included in this survey. Orchard area extends to approximately 0.3 acres. EAYR0031

8. CONCLUSIONS

The results presented above, and also in the following photographic record, lead to the following conclusions:

A total of 32 orchard sites were surveyed, of these 20 were found to be intact orchards.

The total acreage of orchards remaining in this area was found to be 5.3 ha and the average area of each orchard was 0.4 ha.

Most of the orchards contain less than 30 trees and are in a domestic setting. One large orchard of commercial size is recorded.

Though apple dominates, most orchards contain a diverse mixture of fruit species, reflecting their domestic use.

The tree stock is heavily skewed to new plantings. There are few mature orchards.

Veteran tree features indicate a few orchards contain high levels of biodiversity, while most do not.

Less than half the orchards have some or active management, and this is at a lower rate than typically found elsewhere in Scotland.

Many orchards have new plantings and younger trees, and this shows orchards renewal is occurring.

Soft fruit and also vegetables are not grown in a significant number of orchards. This is at a lower level than most of Scotland.

Most fruit is used for family and friends, some is sold commercially and some is left to waste.

Livestock are grazed in small minority of orchards, these being fowl and horses.

To conclude, East contains a small number of small orchards, some of which are actively managed and from which some fruit is used within the domestic setting. There is one large orchard at Dumfries House. Most of the historic large mature orchards that would have previously existed at country houses and farms were found to be no longer present.

EAYR0103 (12).JPG

Plate 01. An apple tree in a small orchard planted as a part of Mainshill Community Woodland & Orchard - East.

EAYR0100_11 cordons.JPG

Plate 02. Newly planted apple cordons in a small domestic garden. The trees were sourced from John Butterworth.

EAYR0101 Panorama looking West.jpg

Plate 03. A medium new orchard at a smallholding.

EAYR0030 Mainshill Car Park (7).JPG

Plate 04. A newly planted community woodland, including patches of plum trees (shown) and cobnuts.

EAYR0104 Mainshill East (1).JPG

Plate 05. Apple trees in the recently planted Mainshill Community Woodland & Orchard - West.

EAYR0106-4.JPG

Plate 06. A large new orchard of apples and pears being re-established in the Assloss walled garden by Save the Earth community group.

EAYR0021 Old Espaliers.JPG

Plate 07. A remnant of an old walled orchard planted in the 1940s. The area is used for grazing horses, kept for an equestrian centre which forms part of the estate's business.

EAYR0107 veteran apple tree hole 2.JPG

Plate 08. An impressive veteran apple tree in a large mature orchard of 40+ trees, positioned in a walled garden.

EAYR0020 Old Orchard and castle ruins.JPG

Plate 09. A site of a historical farm orchard, removed in 1930s.

EAYR0028 (1).jpg

Plate 10. A newly replanted large walled estate garden - the replanting included a large number of mixed fruit trees in various forms. Here is an example of cordons.

EAYR0028 (3).jpg

Plate 11. Fruit trees in perennial borders of a newly landscaped historic estate house walled garden.

EAYR0028 (4).jpg

Plate 12. Fruit trees in lawns of newly landscaped historic estate walled garden.

EAYR0110 (2).JPG

Plate 13. Dalrymple Primary School 50th Anniversary Celebration Orchard. Over 50 apple trees, each sponsored by a different pupils' parent(s).

EAYR0111-Dean Castle 1f.JPG

Plate 14. A newly planted small mixed orchard along a woodland path at Dean Castle and Country Park. One of four new orchards planted around the park.

EAYR0113-4.jpg

Plate 15. Plums planted along the castle wall at at Dean Castle and Country Park. One of the four new orchards planted around the park.

EAYR0022 Young Plum tree.jpg

Plate 16. A site of an historic walled garden. The original orchard has been removed a while ago but some new fruit tree plantings are being made to replace it.

EAYR0018 (4) 5x Pear cordons.JPG

Plate 17. Old pear cordons in a semi-neglected walled estate garden.

EAYR0018 (7) Apple fans East wall.JPG

Plate 18. Old apple fans in a semi-neglected walled estate garden.

EAYR0018 (8) Plum trees.JPG

Plate 19. Mature plum tree fans in a walled estate garden.

EAYR0018 (13) 2x Pear standards.JPG

Plate 20. Mature pear trees in a semi-neglected walled estate garden.

EAYR0025 (3).jpg

Plate 21. A site on a large estate which might have had an orchard in the past. Current manager is interested in establishing a new medium-sized orchard soon.

EAYR0102 (1).JPG

Plate 22. A small, mixed, well-established orchard at Ossington allotments.

EAYR0026 (3).JPG

Plate 23. A community wildlife garden with a number of fruit trees. The site suffers from some vandalism evidenced by a number of tree branches and tops being snapped off.

EAYR0108-(4).jpg

Plate 24. A new domestic orchard.

ANNEX 2: METHODOLOGY

A2.1 Methodology for GIS Deskstudy

The following methodology was implemented for the Deskstudy.
GIS system: MapInfo Professional v11.5 software with Data Capture Tool
Identifying locations; Various sources of data to determine orchard locations:

- Visual search of aerial and historic mapping.
- Existing survey data. Sites listed in existing surveys are reassessed.
- Additional existing datasets:
  - The OS MasterMap 'Orchard' attribute.
  - RCAHMS-Historic Land-use Assessment database
  - Regional orchard projects datasets
  - National Trust for Scotland Demeter Plants Database
  - Agricultural Census,historic data (not site specific)
  - Dunn 1885 Apple Congress report (time constraints meant that only a few sites from this marvellous tome were considered)
  - and other publically available datasets, such as community orchard listings.

A more detailed description of the deskstudy methodology and its results are published in reports for Scotland as a whole. These are available at www.scotlandthefruit.org.uk

A2.2 Methodology for Field Verification

The implementation of field verification is structured as follows:

- Fieldwork is devolved to a local collaborating organisation. Ideally this is a competent local not-for-profit organisation with a track record demonstrating ability to organise and deliver locally.

- Local Facilitator. The local collaborating organisation employs or contracts a person, the Local Facilitator, to be the local interface and organiser of volunteer surveyors. This has been a paid role.

- Recruitment of surveyors. The local organisation uses various channels to recruit volunteer surveyors. The channels include local press, presence at events, membership lists, other organisations, and formal & informal networks.

- Resources are provided by the National Coordinator (in this case Crispin Hayes Associates). Site specific resources such as site location maps and candidate site lists are shared via cloud services with the Local Facilitator. Other generic material is distributed via www.scotlandthefruit.org.uk which is used as the project website. This includes the webforms used to record survey data.

- Allocation. The Local Facilitator allocates sites to volunteers, and manages their progress, ensures instructions including the risk assessment are understood.

- Mentoring. Some volunteer surveyors are very competent at all aspects. Others require a little mentoring. The Local Facilitator carries out this role, if necessary taking the volunteer on a training site visit.

- Survey Data. The Local Facilitator ensures that survey data is submitted together with photos, and that all files are identified with the site unique identification. Quality checks are also carried out, and queries referred to volunteers.

- Data processing. Further quality checks are carried out on the data, and corrections made, if necessary with reference to the Local Facilitator and the volunteer surveyor.

- Merging. The field verification data is added to the Deskstudy data for each site via the Geographical Information System and other database tools.
- Amendments and snagging. Revision of site boundary and other Deskstudy details are carried out on a site by site basis. Snagging is carried out as required.
- Output. Further work may be required: for example redacting personal data fields, and extracting some site subsets, before the finalised dataset is output.

A2.3 Field Verification time input statistics for this area

Some statistics were recorded on the time input of various aspects of the Field Verification.

Time-on-site is reported on each surveyform by the surveyor. The average time on site in this area was 51 mins. The maximum time on site was reported as 240 mins, while the minimum was 10 mins.

In East Ayrshire, the total time-on-site was recorded as 26 hours.

This does not include preparation or travel time, just the time on site.

The time to fill in the survey webform is recorded automatically by the forms service. It shows that on average it took 32 mins to complete a submission in this area.