For publication

A National Orchard Inventory for Scotland

Area Report for: Clackmannanshire

Collaborating Organisations:
Forth Environment Link

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prepared by
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Scottish Natural Heritage
Orchard Research & Enterprise CIC

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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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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

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Summary

Keywords

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

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 26 orchard sites were surveyed, of these 14 were found to be intact orchards.

The total acreage of orchards remaining in this area was found to be 8.2 ha and the average area of each orchard was 0.4 ha.

The survey showed that a modest area of orchards have been lost, and this has not been offset by newer orchards.

Most of the orchards contain less than 30 trees and are in a domestic setting. One large orchard (consisting of 4 contiguous sites) was a former commercial orchard for jam fruit.

Though apple dominates most of the other orchards, there are few of the other orchard species that are found in orchards elsewhere in Scotland

The tree stock contains mainly the older ages. New plantings are notable few.

Veteran tree features indicate the orchards contain high levels of biodiversity.

Only a minority of orchards have some or active management, and this is at a lower rate than typically found elsewhere in Scotland.

Few orchards have new plantings and younger trees, and this shows orchard renewal is not occurring.

Soft fruit and vegetables are grown in only a handful of orchards.

Most fruit is used for family and friends. None is sold commercially.

Livestock is grazed in few of orchards, these being sheep and horses.

The qualitative data demonstrates the passage of history in this area; cultural, economic and otherwise.

To conclude, Clackmannanshire contains a small number of small orchards, some of which are quite actively managed and from which the fruit is used within the domestic setting. Other mature orchards are in decline. There is one large former commercial orchard though this is no longer in commercial production.

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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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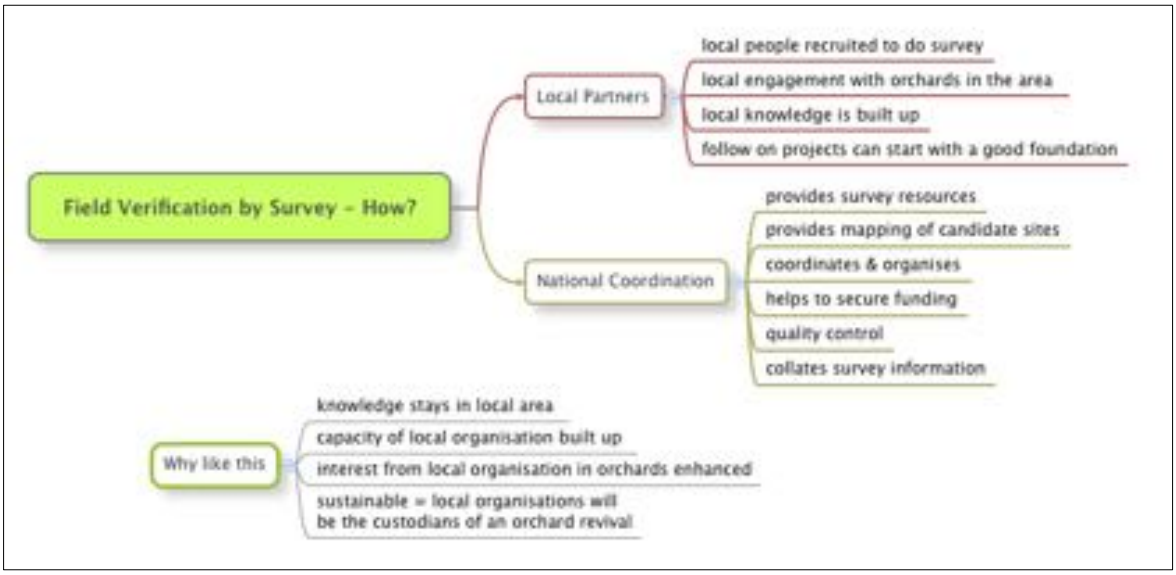
This document is one of a series of reports that provide results for particular areas, which are usually coherent with the local authority domain. The purpose of producing these 'Area Reports' is to make results relevant to local organisations and local people. It is intended to raise awareness about 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

The county is not known for its orchards, but more for its mining and brewing heritage, as well as its agriculture. Most of Britain's smallest county is lowland; stretching from the banks of the Forth north to the Ochils. The climate is moderated by the Forth, but tends to have high levels precipitation as you move from the river towards the hillfoot towns.

The county has experienced the loss of most of its large country houses. Many have been demolished. This has in turn meant that their associated orchards are also lost or abandoned. There are however a number of notable orchards in the area. The village of Blairlogie near Menstrie has a large remnant pear orchard though now in decline; and at Kennetpans there is a large plum orchard originally planted by the Scott jam making family.

Not all of Clackmannanshire's orchards have been covered by the work reported here, though a sufficient number have been surveyed to provide a reasonable picture of the state of the orchards in the area.

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 Diane Alderdice of Forth Environment Link.

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:

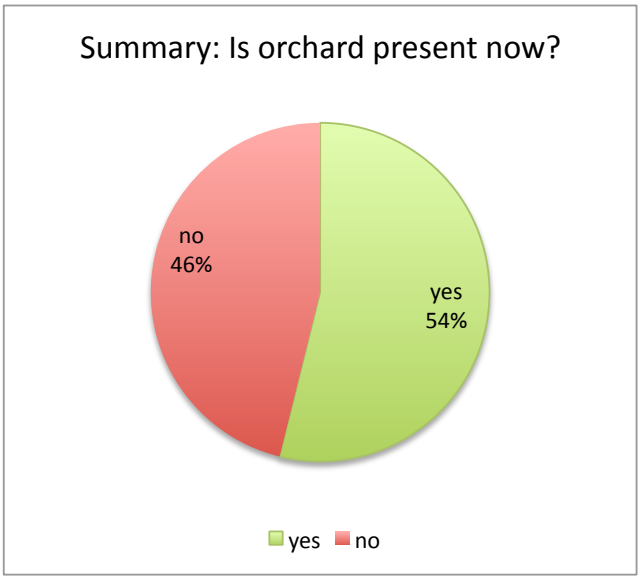
- Numeric and classification information (quantitative), together with overall conclusions.
- Anecdotal and comment information, qualitative aspects.
- Representative photo gallery. A collection of photos with descriptive captions that illustrate the orchards of the area.

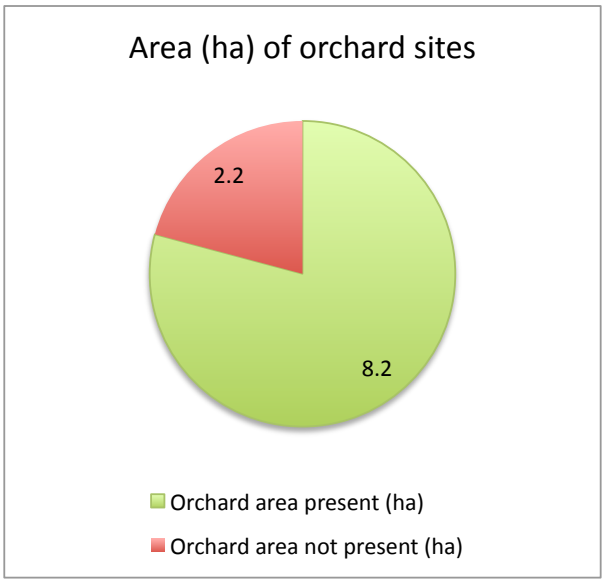
Photos have been submitted for a total of 18 sites.

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 26 candidate sites. Of that number, 14 sites were found to have an orchard present and of those 1 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.

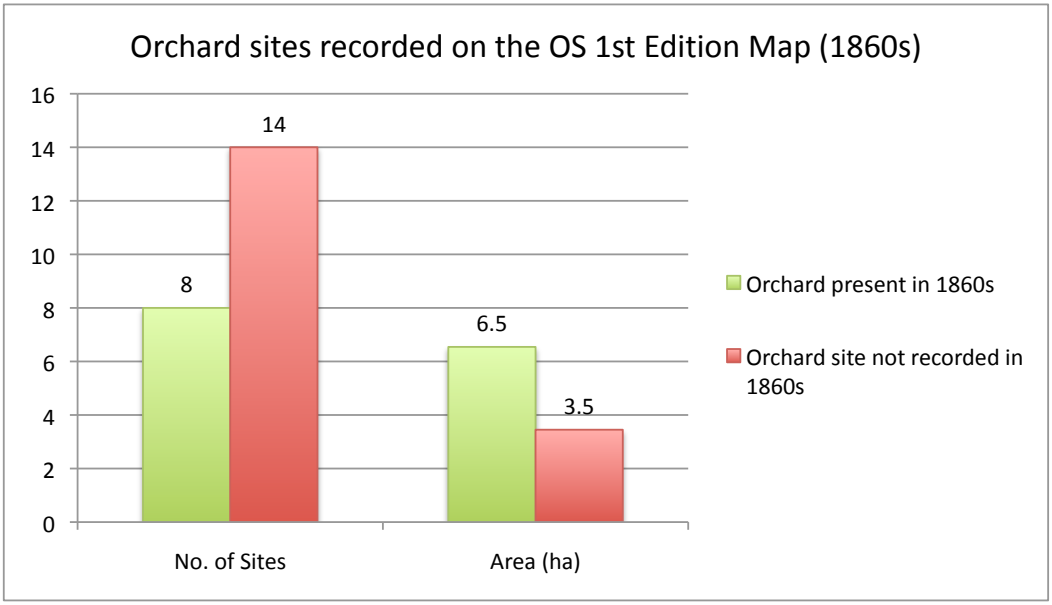
The fieldwork also found that a total of 12 sites were not orchards at the time of survey. Most of these latter sites were identified in the deskstudy as likely to be orchards from mapping, historical, or previous survey data. As such it is likely to represent some of the loss of orchards.

A further nil 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 8.2 ha of the orchard sites were present in Clackmannanshire. This represents 79% of the total area of deskstudy + new orchard sites. The average area of an orchard is 0.4 ha.

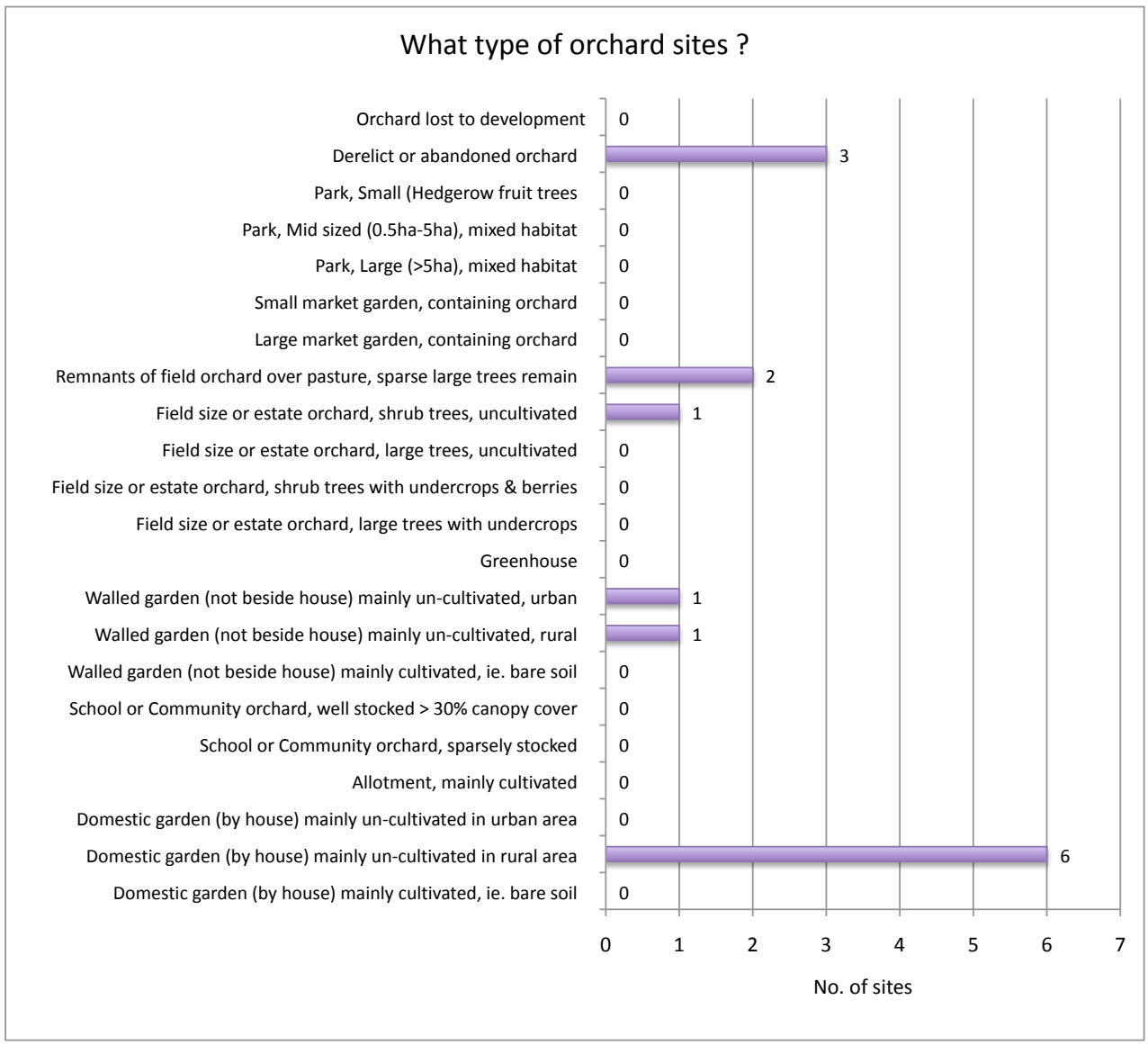
The graphs show that there has been some loss of orchards, both in terms of numbers and total area. It has not been offset by newly planted orchards. The loss is significant because it has occurred in many of the large mature orchards that have historical as well as high biodiversity value.

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 Clackmannanshire a determination for the presence of an orchard on the OS 1st Edition was made for a total of 22 candidate sites. The graph shows that of these, a total of 8 candidate sites were an orchard. The total area for these orchard sites was 6.5 ha in 1860s.

Though these data only include candidate sites that our deskstudy assessed there was a reasonable prospect of an orchard being present, the indication is that the acreage of orchards today may be slightly greater than they were in 1860s. Though the data from 150 years ago didn't include domestic orchards which we have done, it still represents a modest increase from that time.

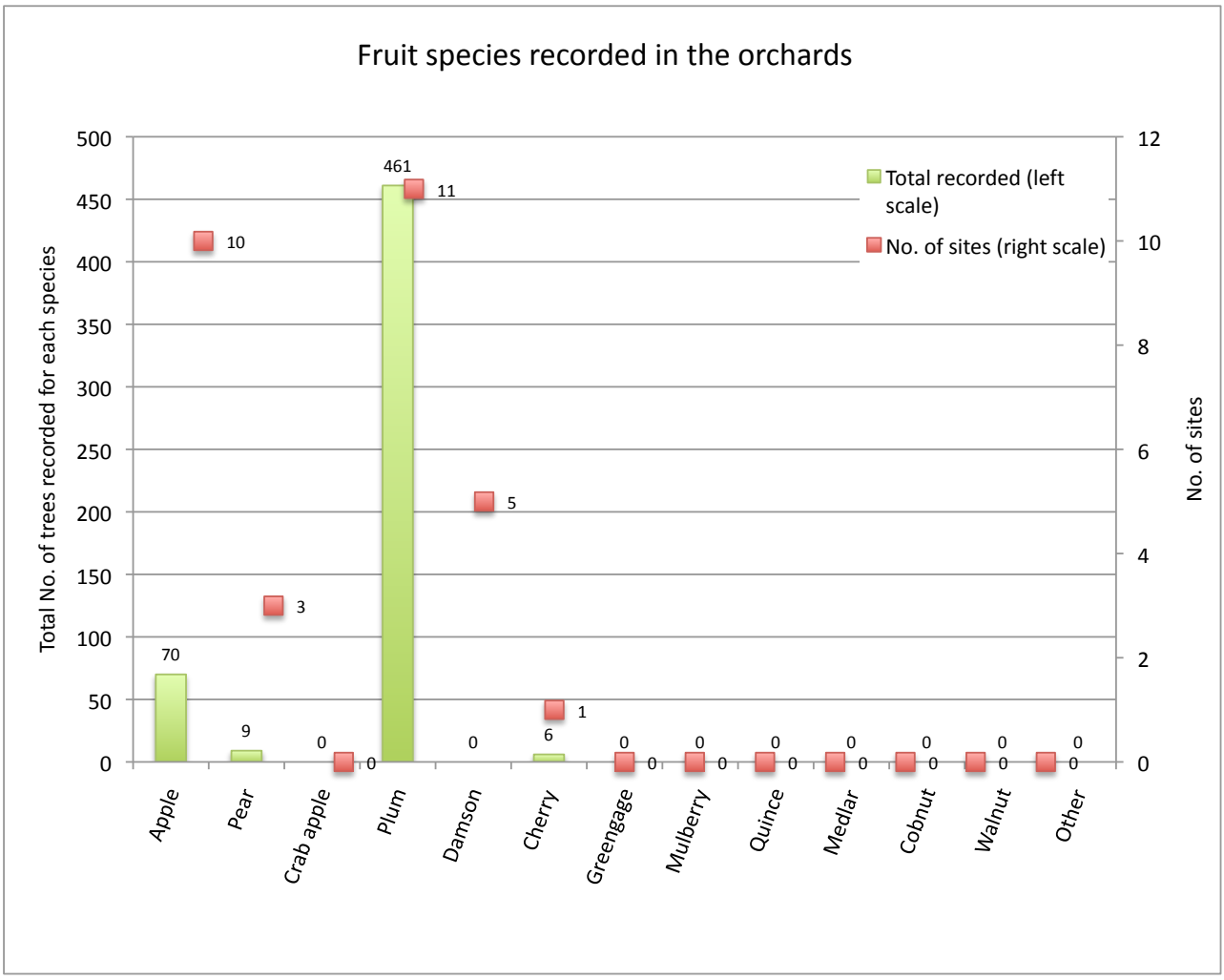


The type of site was recorded as a simple metric that can give a powerful insight into the type of orchard being considered, as well as assisting in the habitat classification using the European Nature Information System (EUNIS). Hence the apparent complexity of site types.

The graph shows the largest classification is for types of domestic orchard by houses. The second largest classification group is for remnant field scale orchards, a site type that would be considered for overtly commercial purposes before its demise. Thirdly walled gardens are also recorded in very small numbers. Three derelict or abandoned or lost to development orchards were recorded.

Stewardship and Agricultural Payments

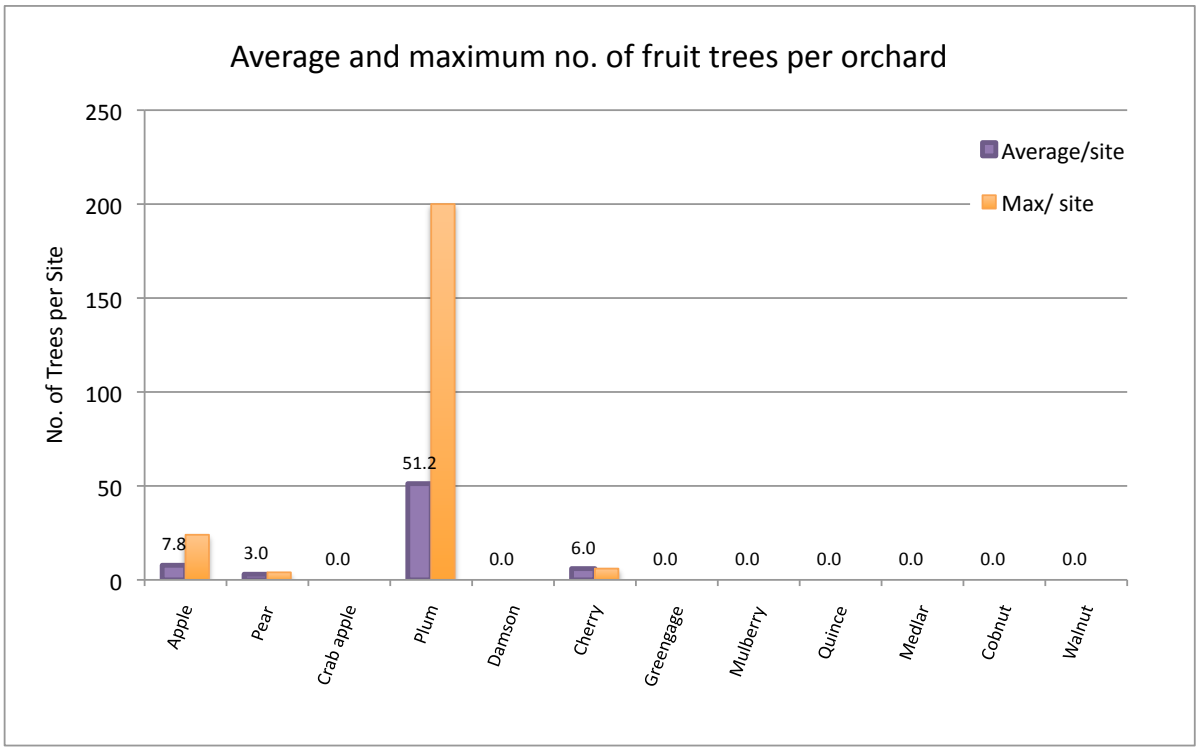
In the area being considered, it has been reported that no orchard(s) are part of a Stewardship scheme. In terms of orchard sites where an agricultural subsidy is being claimed, the survey found no orchard(s) were registered within the Integrated Administration and Control System (IACS) which relates 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 546. We also recorded a size range for each orchard. An estimate of the total number of trees from this size range data is 512. This demonstrates reasonable agreement, given that number of individual trees is not always recorded in every orchard.

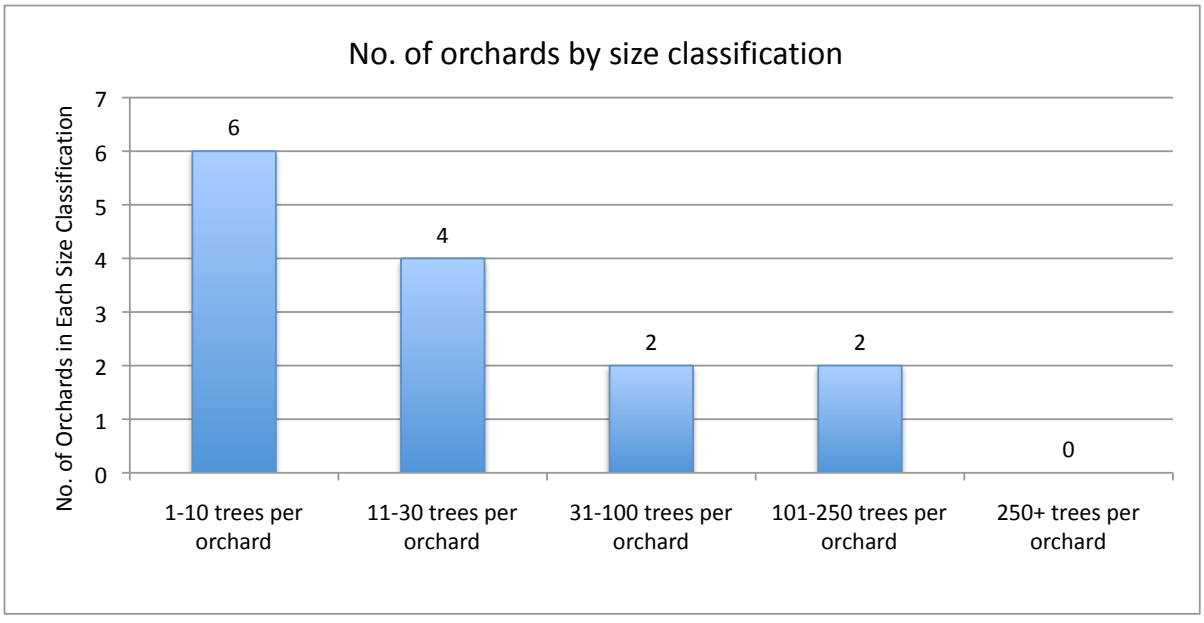
The graph tells the story of this area. Unusually the plum dominates, however this is due to one large orchard. Outwith this one orchard (made up of 4 contiguous sites), apples tend to be the dominant species in the orchards recorded as part of this survey. There are few pears. The usual mixture of other species commonly found are not present in this area.



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.

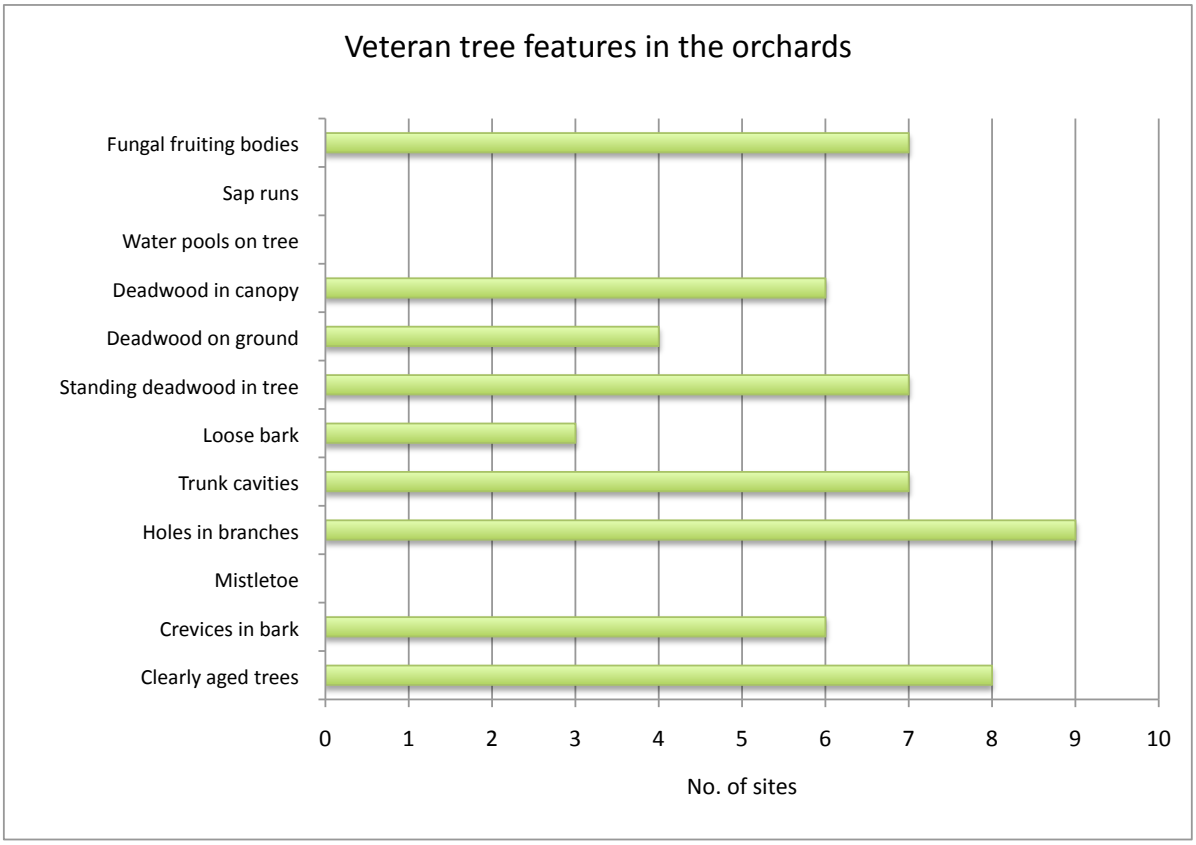
The short purple column on the graph show the average number of each species in the orchards. The taller orange columns show the maximum number of a species found in any orchard in the area.

The high numbers for the orange columns reflect part of the large orchard. The purple (average) provided a more realistic picture of the typical contents of Clackmannanshire orchards if plums are ignored. The figures are an average for the sites where that species is found. With the low number of orchards reported here, some average figures, for example cherry are misleading as cherry was present only on one site.



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.

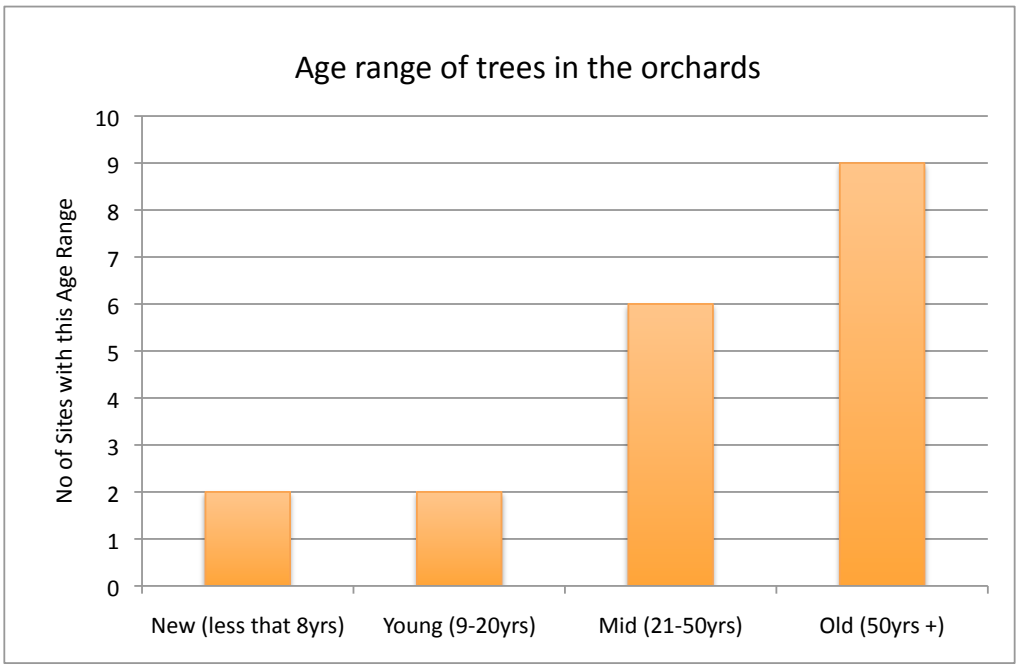
The graph shows that vast majority of orchards had 30 fruit trees or less. A few have up to 100 trees. Only 2 orchards have more than 100 trees which we consider to be a commercial size.



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 57 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.

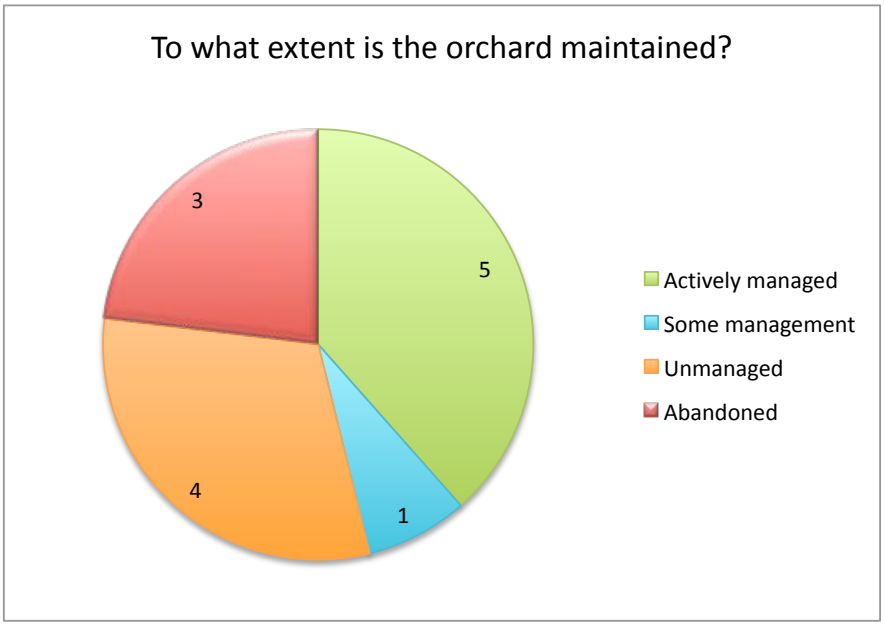
The average proportion of older trees for the orchards was 57%. This figure was calculated from the 11 sites where data was recorded. There will however be a great variability with some orchard being entirely mature, and some being entirely young.



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.

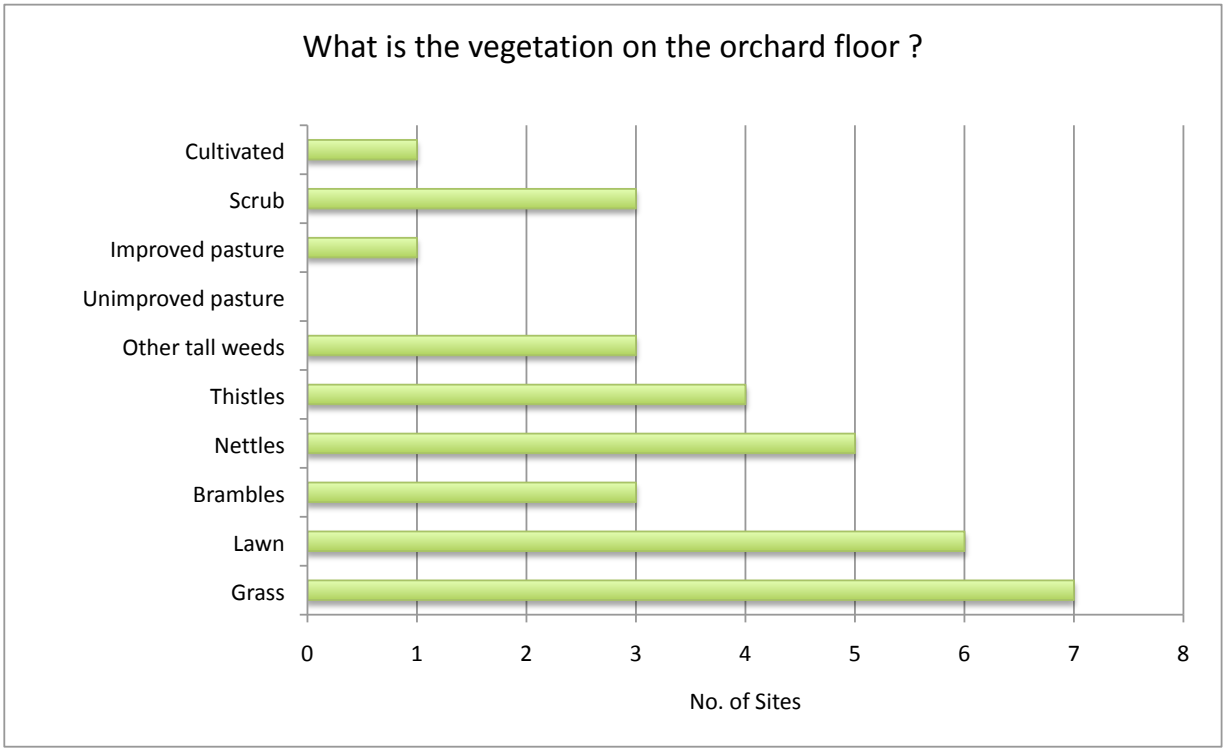
The graph shows all age ranges being represented, though it is heavily skewed to the older age ranges. The level of newer plantings is very low. There has been some loss of orchards, it is of some concern that the data indicates there has little renewal to offset the loss.



The extent of orchard management is given above. A total of 13 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 a minority of orchards have some or active management. This demonstrates lower levels of orchard management than are found in most parts of Scotland.

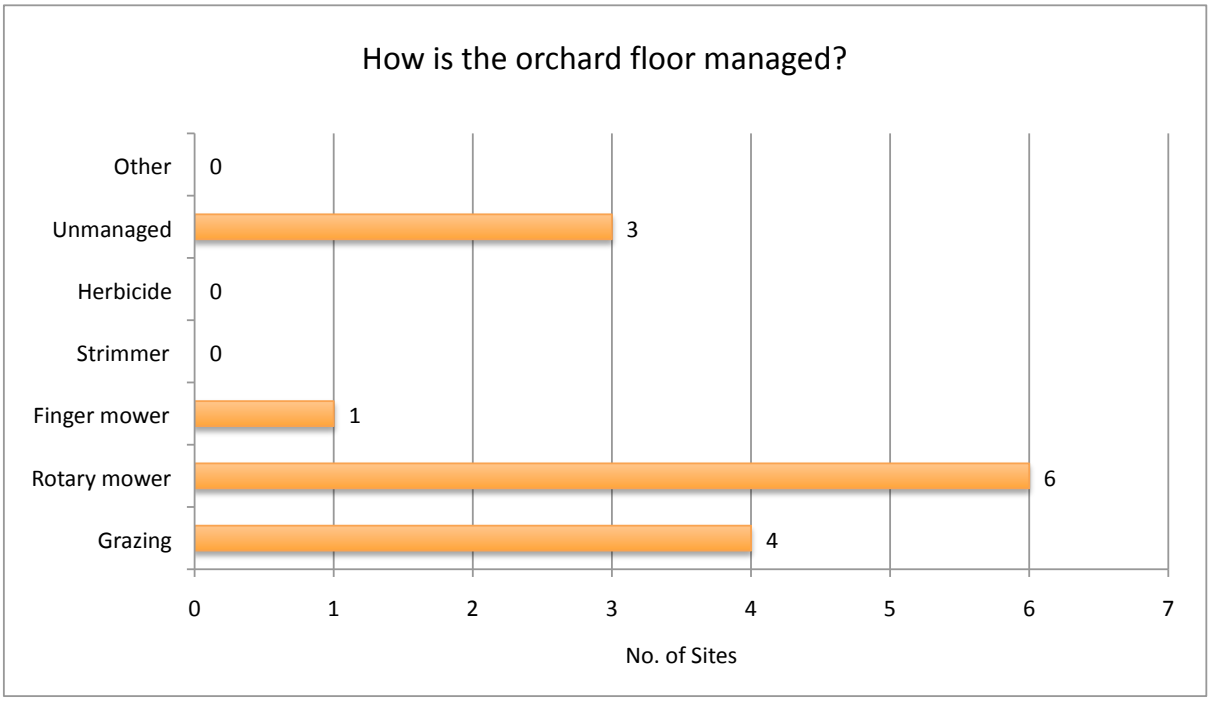
High proportions of abandoned and unmanaged orchards are an indication that there needs to be a local focus on raising awareness on maintenance issues. Maintenance skills project are also a popular way of building capacity locally.



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.

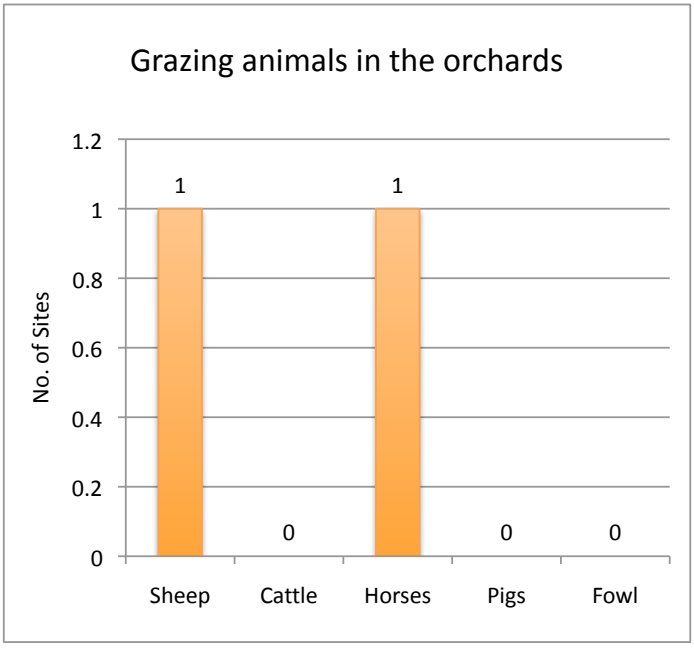
The graphs shows that though many orchards have some sort of managed grass as a field layer, there are a significant number that have various tall weeds and scrub.
Only one of the orchards is also cultivated showing a more complex use of the land.

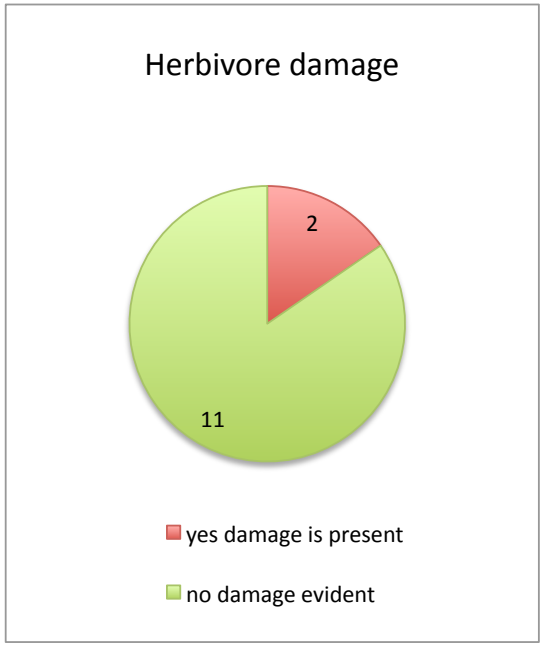


Each orchard can record more than one method for managing the orchard floor. The reference to the finger mower may be unfamiliar. This is a type mower that has a flat cutter bar like a hedge trimmer. The reason for recording this separately is that there is some evidence that this sort of mower does 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.

Unsurprisingly, the graph shows that the common method of management is by rotary mower. Grazing comes second, with unmanaged field layer coming third.

A finger mower is used on one site.



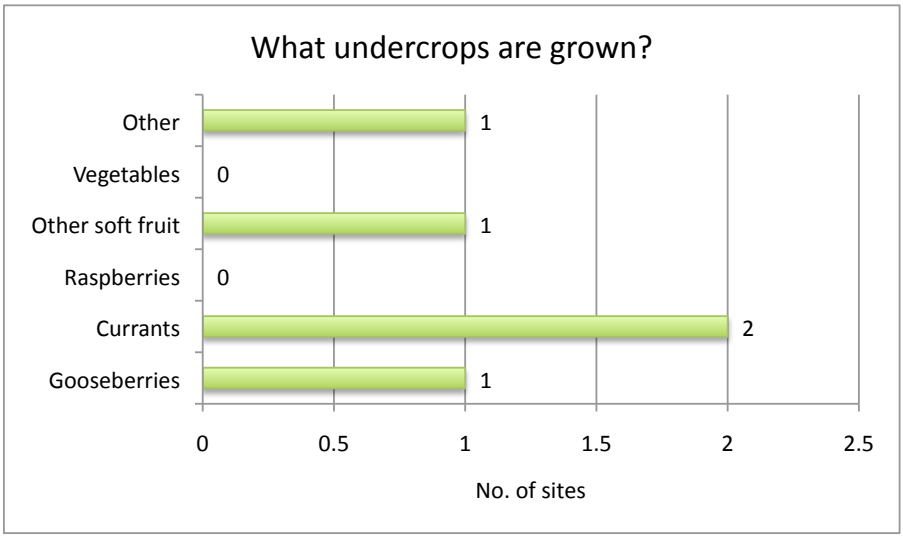


Each orchard can record more than one type of animal grazing the orchard floor.

The graph (above left) shows that sheep and horses are present in an orchard. Sheep are generally more popular and make a good use of the orchard floor; horses can be benign provided that good tree protection is present otherwise they can be devastating.

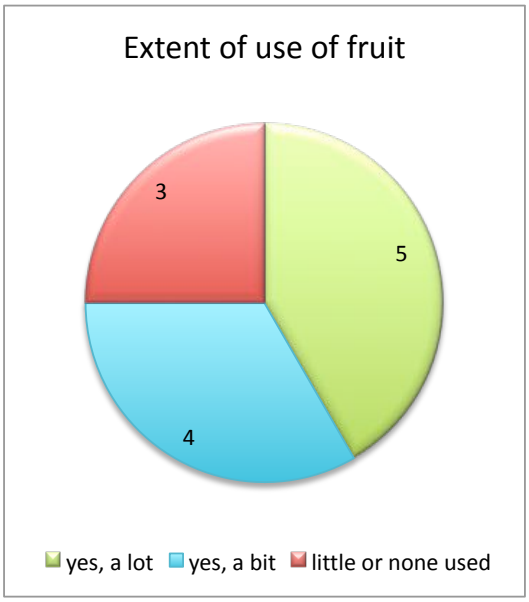
The pie chart shows that where recorded, herbivore damage is evident on a small minority of sites. Some of this could be as a result of poaching by livestock.

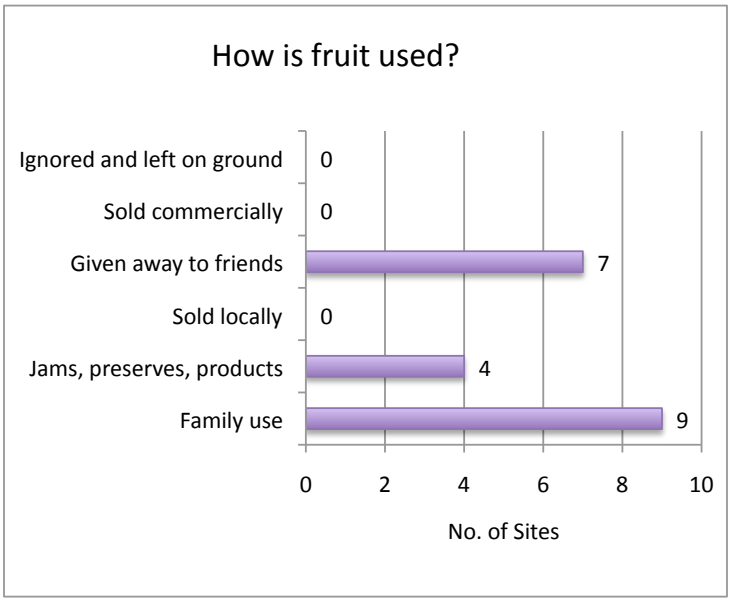
Not all recorded damage can be attributed to grazing livestock, as deer and rabbits also play a role.



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 in a handful of the orchards undercrops are still grown.





The use of fruit was determined for 12 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 under half of orchards report that they use the fruit a lot. A similar amount use a bit of their fruit. A few use little or none of their fruit.

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, followed by giving the fruit away and then by jam, preserves, products was most common usage.

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 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

Due to small number of submissions, very little qualitative data was available.

Surveyors noted a couple small but well maintained and productive orchards in the area:

Trees in the main orchard planted 2010. Trees against the barn wall planted perhaps over 50 years ago.
Two labels remain on the trees: Morello Cherry (Colt rootstock); Reander Apple.
There are four additional apple trees as fans against the barn wall that supplies most of the fruit as the trees in the main orchard are not quite large enough to do anything with.
The farm is not a working farm. The main orchard is in front of the house down a slope and there are four additional trees against the barn wall in a fan-shape. CLAC0017

The trees are in a large walled garden at the back of the house, said to have been an orchard as part of the old [...] Tower estate, which has existed since the 15th century. The owner said that her son was keen to plant more fruit trees to make cider, but the trees that had been planted near to the house had not yet produced fruit.
The two oldest trees are part of the old orchard once belonging to the [...] Tower (opposite the house). [...] There are four young trees planted within the past two years by the owner's son. CLAC0018

All trees are 15 years old ie planted in 2000. Fruit trees purchased from Future Forests, Cork, Ireland. Planted on M23 rootstocks. Managed as sustainably as possible, but there is a sawfly problem so the trees are sometimes sprayed. The trees are all pruned twice a year and are all at picking height. CLAC0019

A few orchards in decline were also noted, including some abandoned sites:

The site straddles the road from [a whisky distillery] processing plant to the bonded warehouse. The section north of the road and beside the River Devon is densely overgrown. The main site across the road is larger and also overgrown with hawthorn, currants, and elder. The trees that are still standing grow in or beside thickets of shrubs. Many fruit trees have fallen over and are overgrown with ground flora, making access difficult. CLAC0012

Surveyors noted a couple of family farm orchards in this category, which have have been downsized since their heyday:

[...] The orchard is now confined to a central part of the field in amongst old air-raid shelters. The fruit trees are planted in rows but are in poor condition, but have biodiversity features (lichen, holes, dead wood etc). There are two, what seem to be fruit trees scattered away from the main orchard. The orchard is surrounded by large deciduous trees, one oak reputedly having the largest girth in Clackmannanshire. The owners have no plans to revive the orchard but plan to plant more deciduous trees in the field in the future.
The farm has been in the family over 100 years and is thought to have always had an orchard. It was said that it belonged to the now demolished house in the field. CLAC0013

The farm has been in the family since 1922. The orchard was once extensive but most trees were lost to farm building development. One apple tree remains of the old orchard in the corner of the lawn nearest to the house, and the owner has planted three dwarf rootstock apple and four plums from Glendoick Nursery over 35 years ago. CLAC0024

One very unusual set of 5 orchard sites was also recorded, with 100s of mature plum and damson trees. The site used to be a part of a commercial operation at a nursery but it is now unmanaged and in decline. However, the current owner is keen for the fruit and trees to be used by organised groups:

[...] The orchard was originally part of the Kennetpans Garden Centre, which closed 22 years ago (c 1993). The previous owner decided that the return from the plum crop wouldn't be commercially viable. [...] This part of the site is only a few metres from the River Forth, which is tidal, and has deposited flotsam throughout the trees. CLAC0006

[...] The current owner purchased the land from the previous owner who planted the orchard. It is possibly one of the most exciting and unusual orchards in Forth Valley. The owner has no plans to do anything with the orchard but is keen for organised groups to pick and use the fruit in future, and possibly generate a small return to be donated to the Kennetpans Distillery Trust, to restore the historic distillery on his land. He is also keen for it to be used a training ground for pruning.
The owner also owns [four other orchard sites]. The ground is very wet in the walled garden, being very close to the River Forth, and having no drainage. The orchard isn't managed but [the owner] would be happy for an organised group to do some pruning.
Little grazing damage seen. The owner has 30+ alpacas who graze in the orchard and over the estate. CLAC0005

8. CONCLUSIONS

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

- A total of 26 orchard sites were surveyed, of these 14 were found to be intact orchards.
- The total acreage of orchards remaining in this area was found to be 8.2 ha and the average area of each orchard was 0.4 ha.
- The survey showed that a modest area of orchards have been lost, and this has not been offset by newer orchards.
- Most of the orchards contain less than 30 trees and are in a domestic setting. One large orchard (consisting of 4 contiguous sites) was a former commercial orchard for jam fruit.
- Though apple dominates most of the other orchards, there are few of the other orchard species that are found in orchards elsewhere in Scotland
- The tree stock contains mainly the older ages. New plantings are notable few.
- Veteran tree features indicate the orchards contain high levels of biodiversity.
- Only a minority of orchards have some or active management, and this is at a lower rate than typically found elsewhere in Scotland.
- Few orchards have new plantings and younger trees, and this shows orchard renewal is not occurring.
- Soft fruit and vegetables are grown in only a handful of orchards.
- Most fruit is used for family and friends. None is sold commercially.
- Livestock is grazed in few of orchards, these being sheep and horses.
- The qualitative data demonstrates the passage of history in this area; cultural, economic and otherwise.

To conclude, Clackmannanshire contains a small number of small orchards, some of which are quite actively managed and from which the fruit is used within the domestic setting. Other mature orchards are in decline. There is one large former commercial orchard though this is no longer in commercial production.

CLAC0019_summer (2).JPG

Plate 01. A beautifully mantained and well used medium domestic orchard.

CLAC0013_Orchard_Farm (5).jpg

Plate 02. A site of a long-standing farmhouse orchard now in decline and being replaced by deciduous tree plantings.

CLAC0018_ (4).jpg

Plate 03. A veteran tree remnant of an orchard in an old walled garden. The site is a host to a small orchard of veteran and newly planted apple trees.

CLAC0005_4.jpg

Plate 04. A large, mature orchard of 200+ plums and damsons, previously a part of a commercial nursery. The current owner of this and 4 adjacent sites leaves them unmanaged but is happy for organised groups to take advantage of the fruit.

CLAC0007_1.jpg

Plate 05. Mature plums and damsons at one of the sites of the previous nursery site, now unmanaged (also see previous photo).

CLAC0024_ (1).jpg

Plate 06. A small mid-age farmhouse orchard of apples and plums. This replaced a much more extensive orchard which used to be a part of the farm elsewhere in the past.

CLAC0017_Farm (2).jpg

Plate 07. Newly planted cherries and apples in a small farmhouse orchard.

CLAC0022_ (1).jpg

Plate 08. Veteran apple and pear trees against a wall in a historic walled garden. The garden contains a sm... orchard with a mix of veteran and newly planted apples, pears and plums.

CLAC0100_(1).jpg

Plate 09. A well established mixed domestic orchard.

CLAC0012 (3).jpg

Plate 10. A small abandoned and overgrown apple 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 22 mins. The maximum time on site was reported as 70 mins, while the minimum was 10 mins.

In Clackmannanshire, the total time-on-site was recorded as 7 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 15 mins to complete a submission in this area.

The total time recorded for filling the survey webforms is 2 hours for this area.

This does not include preparation, fettling photos and ensuring all file uploads have the correct Orchard ID as filenames.