

For publication

A National Orchard Inventory for Scotland

Area Report for: South Lanarkshire

Collaborating Organisations:

Clyde Valley Orchard Co-operative

Clyde and Avon Valley Landscape Partnership



Report version 2 dated 16th Feb 2018

prepared by

Crispin Hayes Associates

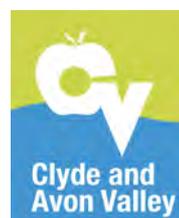
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Orchard Research & Enterprise CIC

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Summary

Keywords

Orchard; fruit tree; top fruit; apple; pear; plum; undercrop; EUNIS G1.D4; Clyde Valley.

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 215 orchard sites were surveyed, of these 124 were found to be intact orchards.

The total acreage of orchards remaining in this area was found to be 72.6 ha

There are still significant amount of fruit grown in the area

However, a large amount, probably the majority is not used

Large numbers of orchards totalling 50 ha have been lost or abandoned

The aged tree stock dominates but there are significant numbers of younger trees

Veteran tree features indicate the orchards contain high levels of biodiversity

Most orchards have little or no management

Most orchards have less than 30 trees. Only a small minority have over 100 trees

Currants, gooseberries and other soft fruit is grown in a significant minority of orchards

Livestock is grazed in a significant minority of orchards, but there is some evidence of damage to trees resulting.

The qualitative data demonstrates the depth of history; cultural, economic and otherwise, that this area is custodian to.

To conclude, the Clyde Valley and the rest of South Lanarkshire is still at the present time, the premier orchard area of Scotland. However there are some uncomfortable indicators of its former glory, which provide a strong call to action.

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.

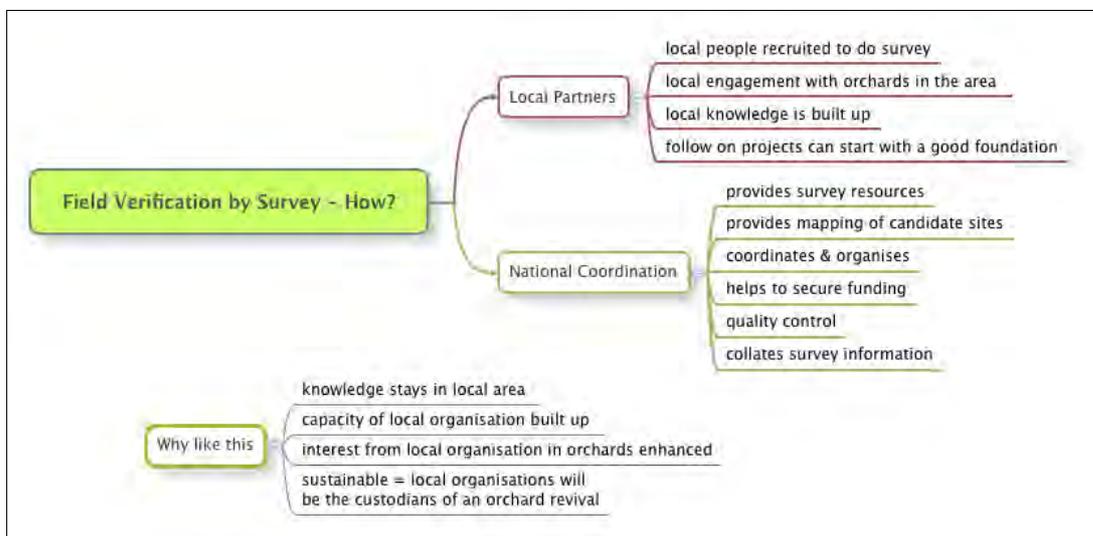
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This document is one of a series of reports that provide results for particular areas, which are usually coherent with the local authority domain. The purpose of producing these 'Area Reports' is to make results relevant to local organisations and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

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 Clyde Valley is at the heart of South Lanarkshire in terms of orchards. This area has been well described by other work including landscape characterisation. To summarise the topography of the Clyde Valley provides it with a much more sheltered environment than the surrounding parts of South Lanarkshire. The sheltered nature prevents the worst of the winds, and extremes of temperature, so the location is favourable for orchards but it also retains humidity which is not helpful in terms of disease.

The area is still Scotland's single biggest and most concentrated orchard area. Prior to the late Victorian era, the Clyde Valley was known for apple and pear production, but it subsequently changed to plum, and in particular the Victoria plum, a variety which was discovered as seedling in the South of England in 1844.

The Clyde Valley is seeing a renaissance of interest in orchards but faces many challenges especially in terms of economics and changes in land ownership.

4 Methodology

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

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 Facilitator for this area was Duncan Arthur of Clyde Valley Orchard Company.

Time input for field verification work is reported in the Appendix.

5 Structure of Results

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

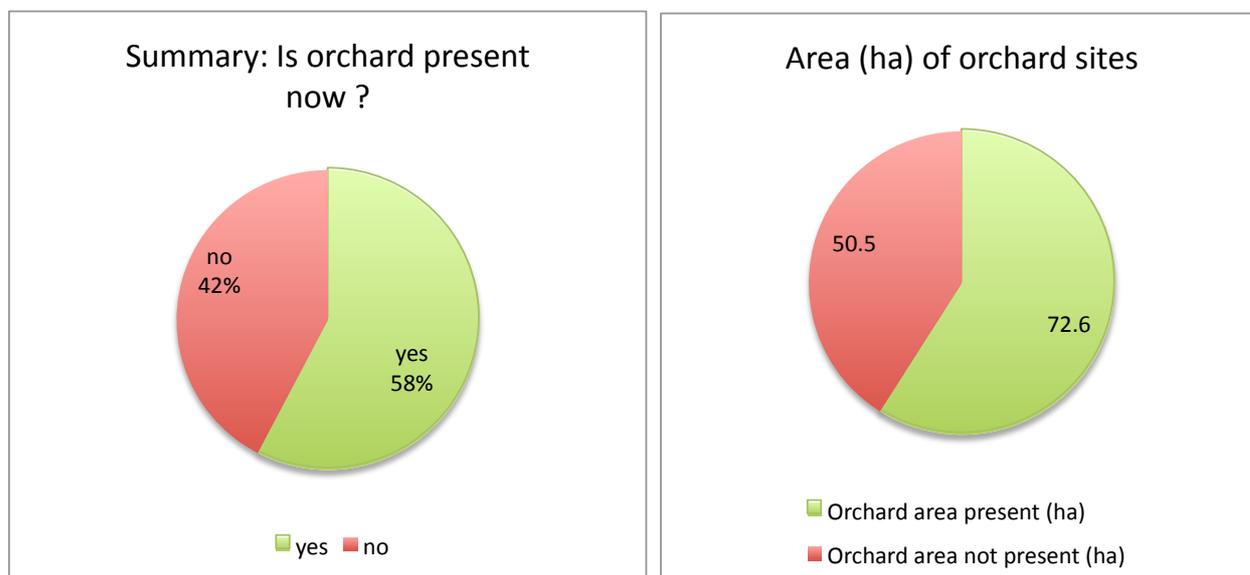
- Numeric and classification information (quantitative), together with overall conclusions.
- Anecdotal and comment information, qualitative aspects.
- Representative photo gallery. A collection of photos with descriptive captions that illustrate the orchards of the area.

Photos have been submitted for a total of 190 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.



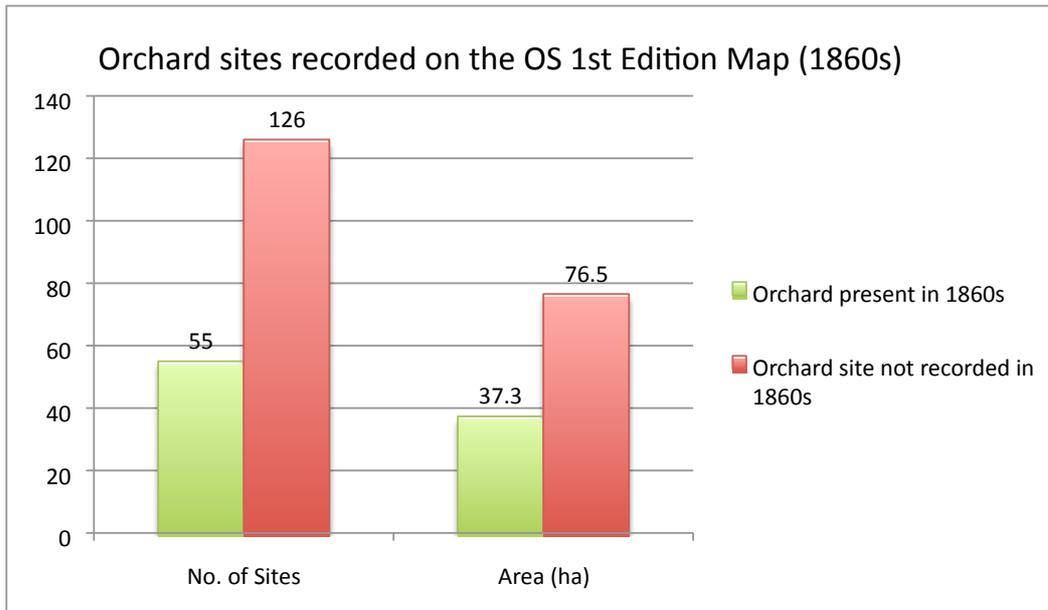
The graphs above show the headline results of whether orchards were found to be present on candidate sites (left pie chart), and the total associated area (right pie chart).

Field surveywork was completed for this area for 215 candidate sites. Of that number, 124 sites were found to have an orchard present. Our definition of an orchard is a collection of 5 or more fruit trees in proximity. The fieldwork also found that a total of 91 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.

In terms of the acreage of sites, the fieldwork found that 72.6 ha of the deskstudy candidate sites were present in South Lanarkshire. This represents 59% of the total area of deskstudy candidate orchards. New sites are not included in the data at this stage.

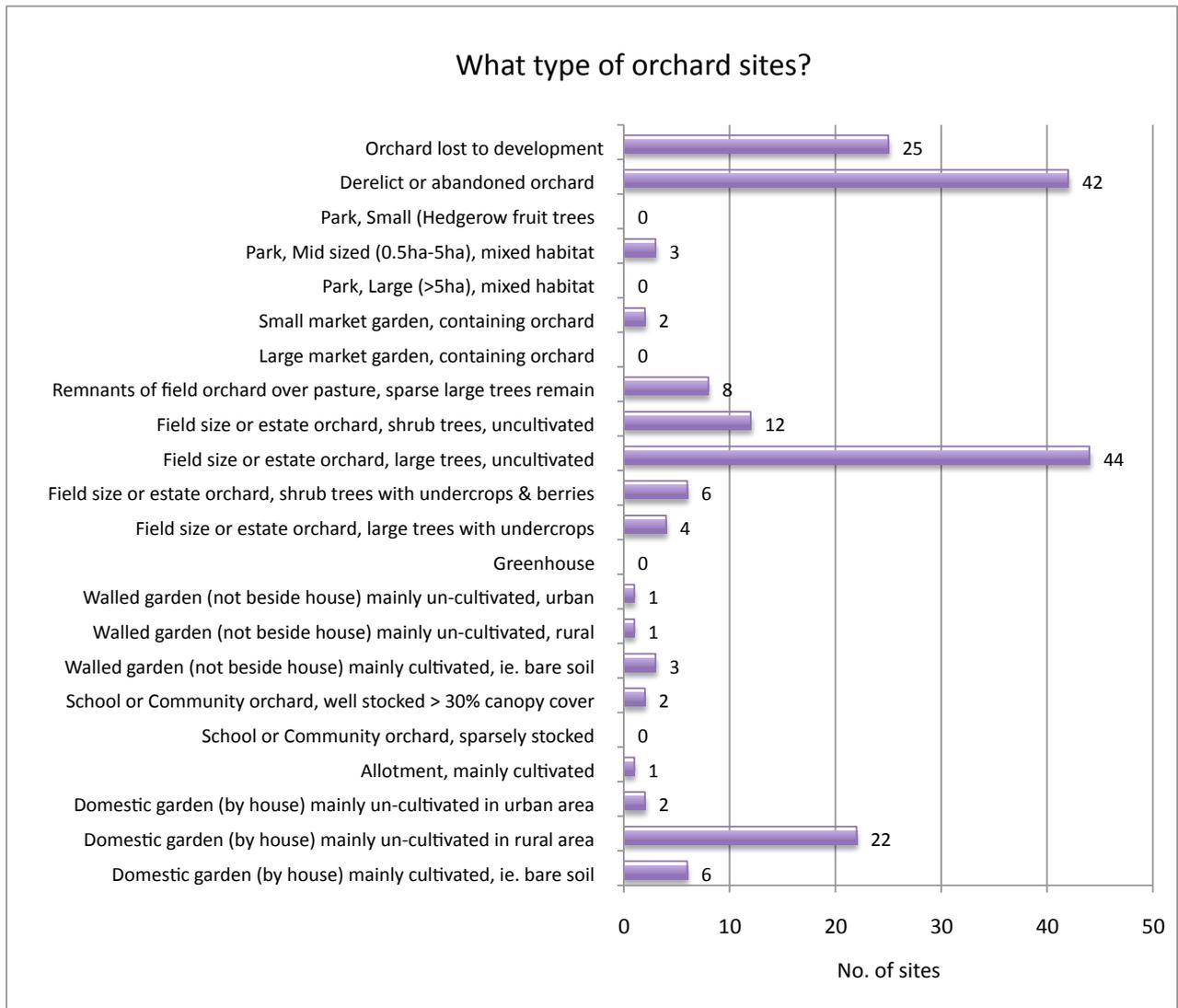
The graphs show that there has been significant loss of orchards, both in terms of numbers and total area. Around a third of orchard sites have been lost, and most of this loss is associated with the Clyde Valley. As South Lanarkshire is likely to host Scotland's largest concentration of orchards, the area of loss is sizeable at 50 ha (125 acres).

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 South Lanarkshire a determination for the presence of an orchard on the OS 1st Edition was made for a total of 181 candidate sites. The graph shows that of these, a total of 55 candidate sites were an orchard. The total area for these orchard sites was 37.3 ha in 1860s.

These data represent an interesting story for South Lanarkshire and the Clyde Valley in particular. Though these data only include candidate sites where our deskstudy assessed there was a reasonable prospect of an orchard being present, the indication is that the acreage of orchards today may be greater than they were in 1860s. Other historical information, shows that the Clyde Valley experienced a renaissance in the late Victorian era, when a changeover from apples to plums (in particular the Victoria Plum) took place. Thus our two historical snapshots (1860 and 2016) stand astride the Clyde Valley's 'orchard maxima' which probably occurred in the mid 20th century.



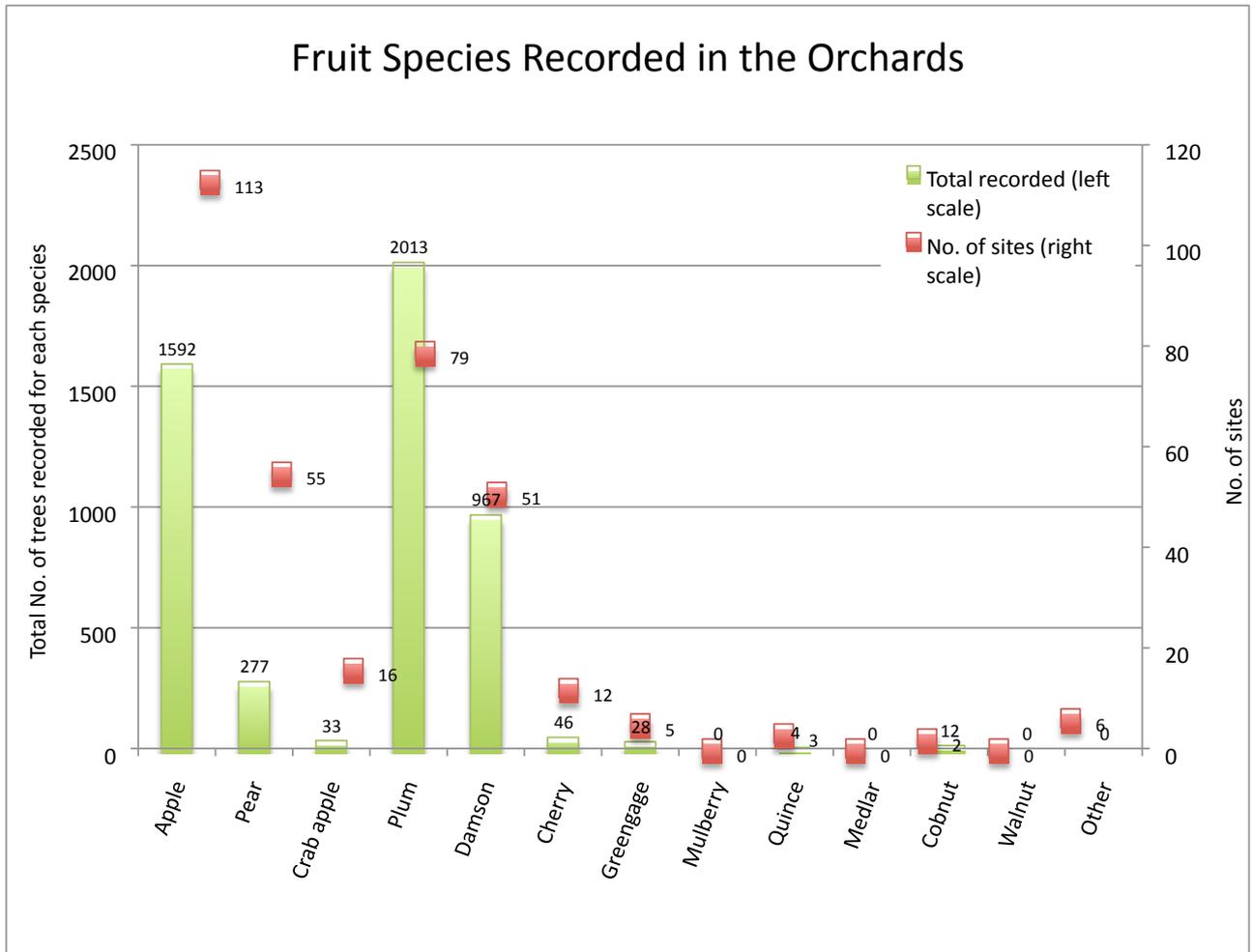
The type of site was recorded as a simple metric that can give a powerful insight into the type of orchard being considered, as well as assisting in the habitat classification using the European Nature Information System (EUNIS). Hence the apparent complexity of site types.

The graph shows the single largest classification of 44 sites are field size or estate orchards with large trees and uncultivated orchard floor. The second largest classification of sites with an orchard are the 22 domestic gardens, also mainly uncultivated. However, as many sites are lost to development (25), and derelict or abandoned orchards (42).

A number of other site types are present.

Stewardship and Agricultural Payments

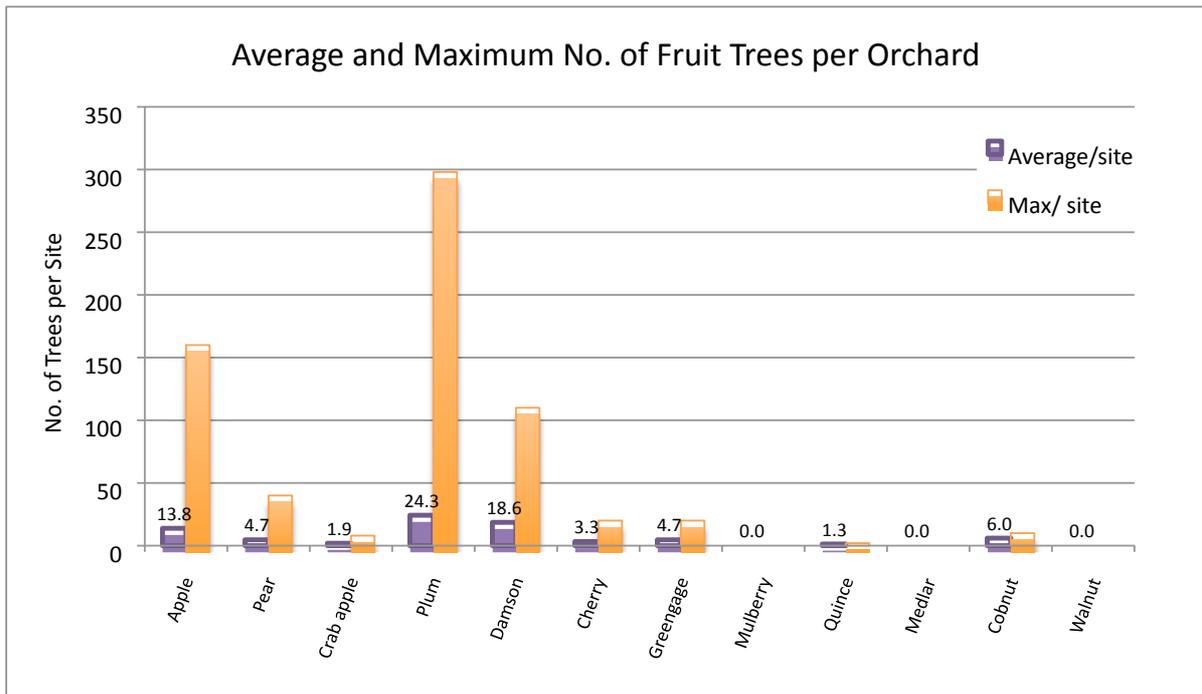
In the area being considered, it has been reported that 7 orchard(s) are part of a Stewardship scheme. In terms of orchard sites where an agricultural subsidy is being claimed, the survey found 1 orchard(s) were registered within the Integrated Administration and Control System (IACS) which relates to EU agricultural payments. This figure is probably an under-representation as there is some incentive to classify the land as other than an orchard.



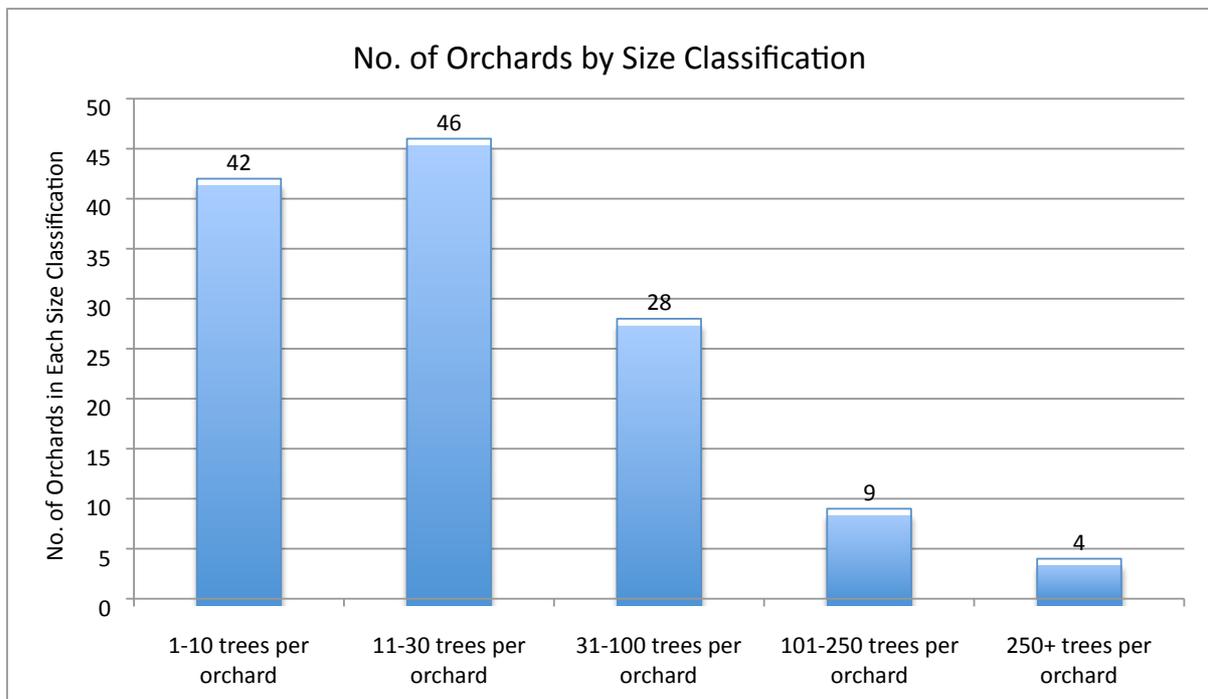
A broad range of top fruit species were recorded to gain a full picture of fruit produced. The green columns (left scale) represents the total number of trees recorded for each species in the area being considered. The red markers (right scale) represent the number of orchards in which that data was 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 4972. We also recorded a size range for each orchard. An estimate of the total number of trees from this size range data is 5138. 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 and the Clyde Valley in particular. In most of Scotland the apple is the dominant top fruit species but here it falls a clear second to the plum. The area also contains a high number of damson. Other species are not well represented, even the pear having comparatively few examples.

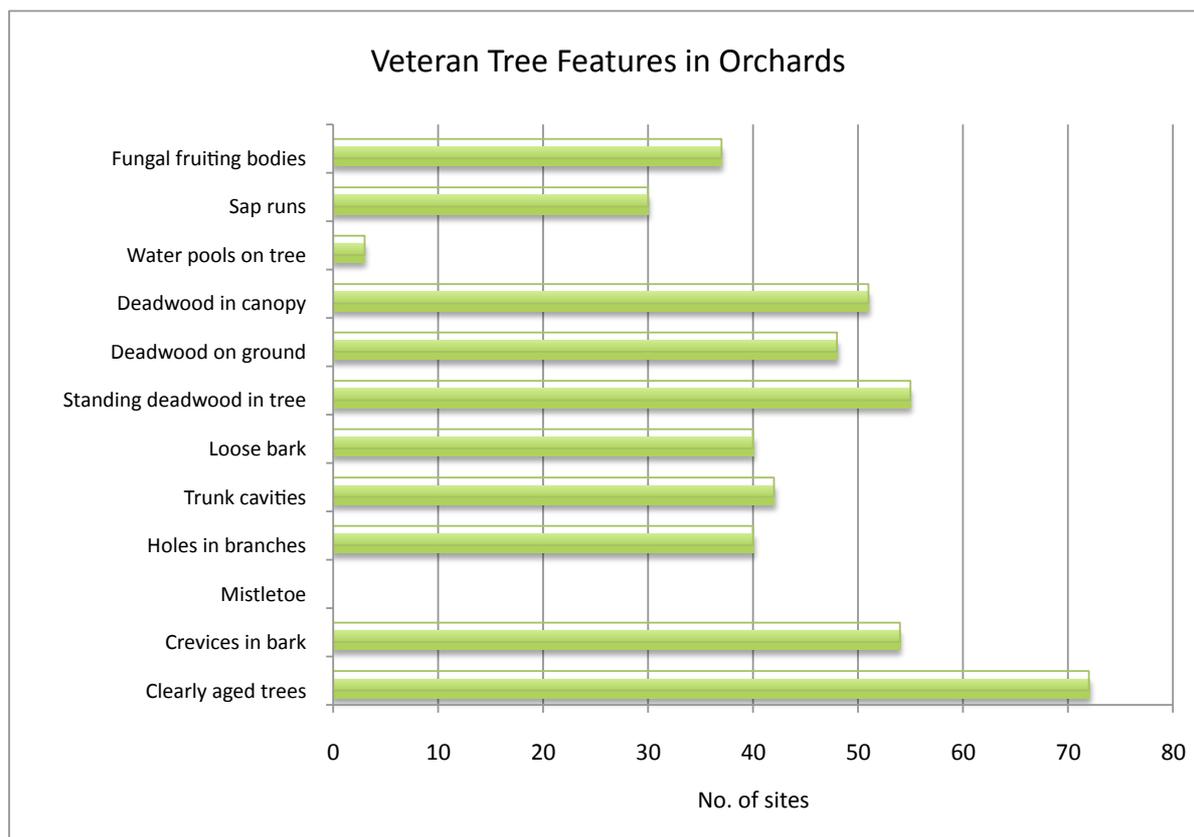


The graph above represents the average and maximum number of each species in the orchards of the area. It does not represent the typical stocking of an average orchard. The short purple column on the graph show the average number of each species in the orchards. The taller orange columns show the maximum number of a species found in any orchard in the area. We can see that the largest plum orchard is recorded as having 300 plum trees in it, though the average number is only 24 trees. Likewise for apples the highest is over 150 while the average is only around 14. This demonstrates a great variability in the size of orchards in the area.



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.

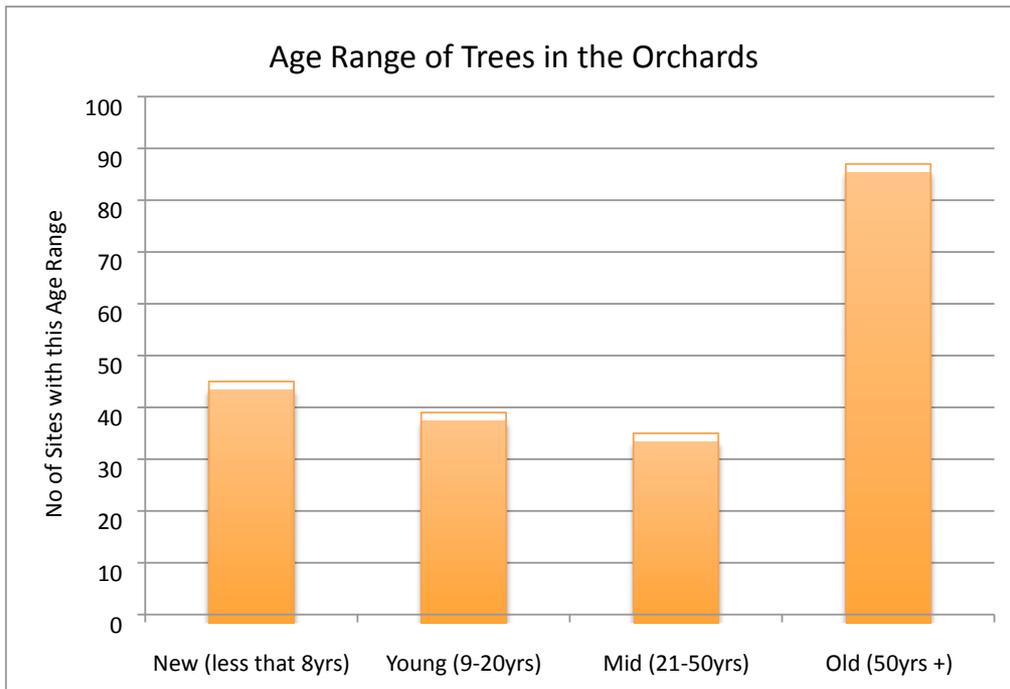
The graph shows that most orchards had 30 fruit trees or less. A large minority have up to 100 trees. A handful of orchards have more than 100 trees and a few more than 250 trees, which we consider to be a commercial size. The current size classification of orchards perhaps indicates that most orchards are now non-commercial.



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 472 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.

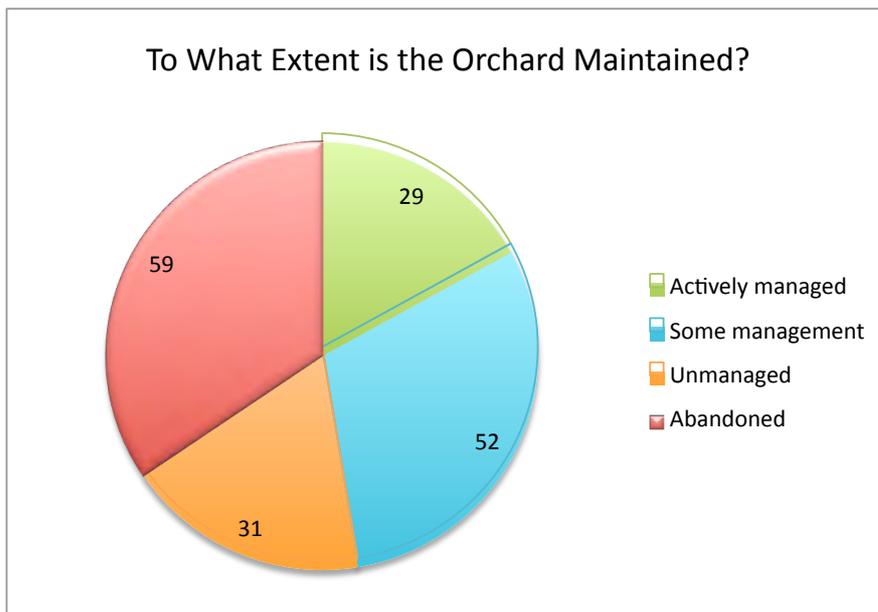
The average proportion of older trees for the orchards was 56%. This figure was calculated from the 116 sites where data was recorded. There will however be a great variability with some orchard being entirely mature, and some being entirely young.



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

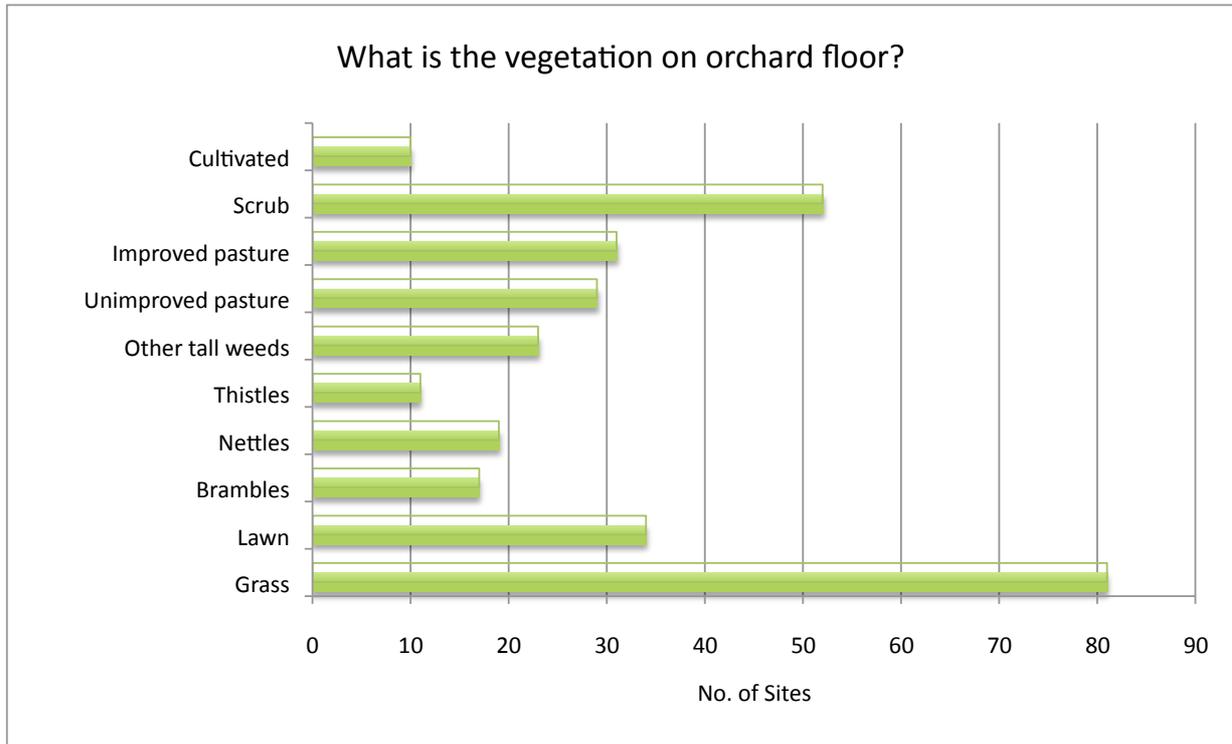
Each orchard may contain a number or all the age ranges reflecting the plantings over the years. Predominantly old trees indicates a mature collection of orchards. If no new or young plantings are recorded in an area, this indicates that the presence of orchards in the area is potentially threatened.

The graph shows all age ranges being represented but the old tree range dominates. However it is also some comfort that there are significant numbers of orchards with new and young trees, reflecting the effort in awareness raising that has gone into the Clyde Valley in the last couple of decades.



The extent of orchard management is given above. A total of 171 sites have data recorded for them. The figures in the chart are the number of orchards determined to be in each particular category.

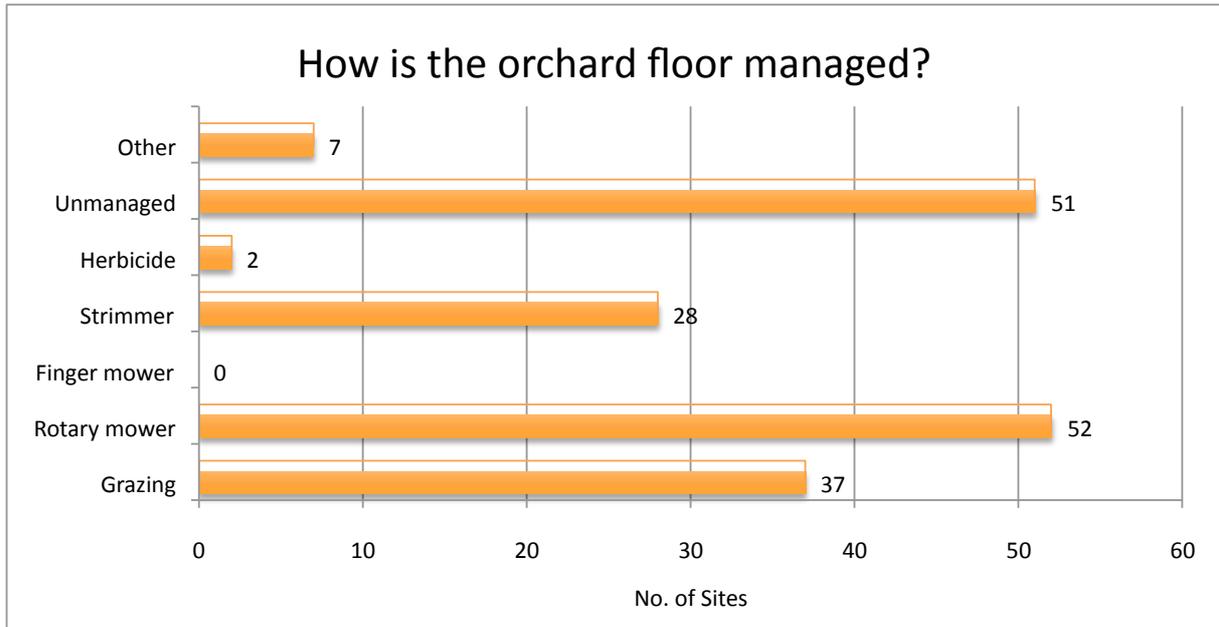
The graph shows that a little over half of the orchards are abandoned or unmanaged. High proportions of abandoned and unmanaged orchards are an indication that there needs to be a local focus on raising awareness on maintenance issues. Maintenance skills project are also a popular way of building capacity 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.

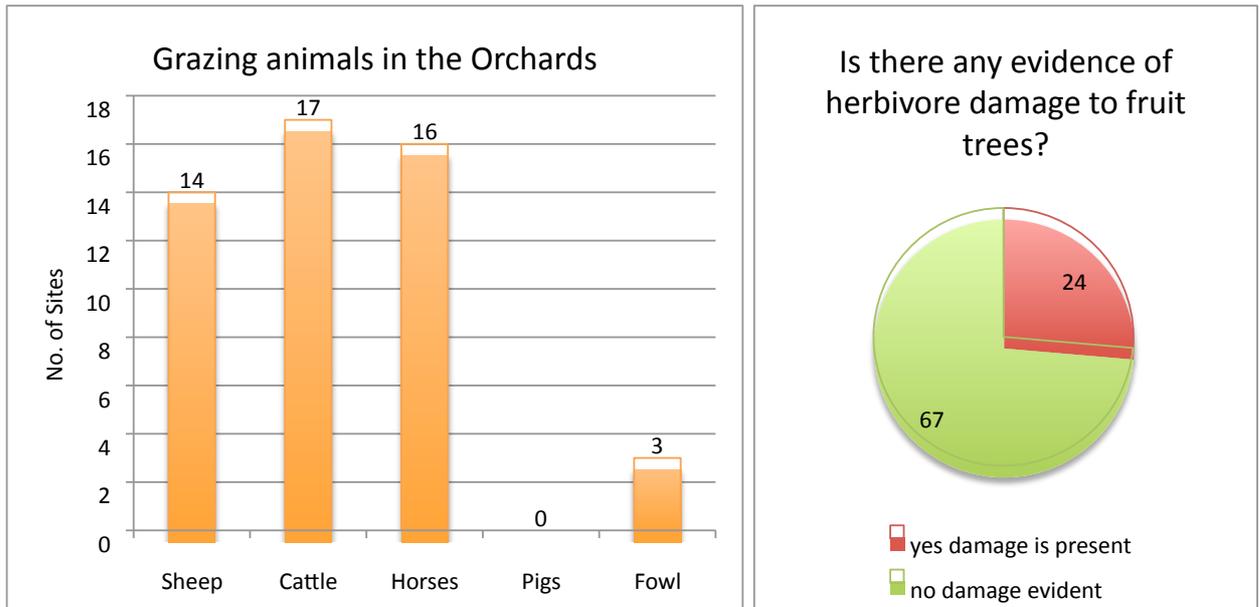
The graph shows that most orchards have some sort of managed grass as a field layer. However, there is an unusually high proportion that are scrub. This is perhaps an indication of the large amount of abandoned orchards that now exist in what once was Scotland's prime orchard area.



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.

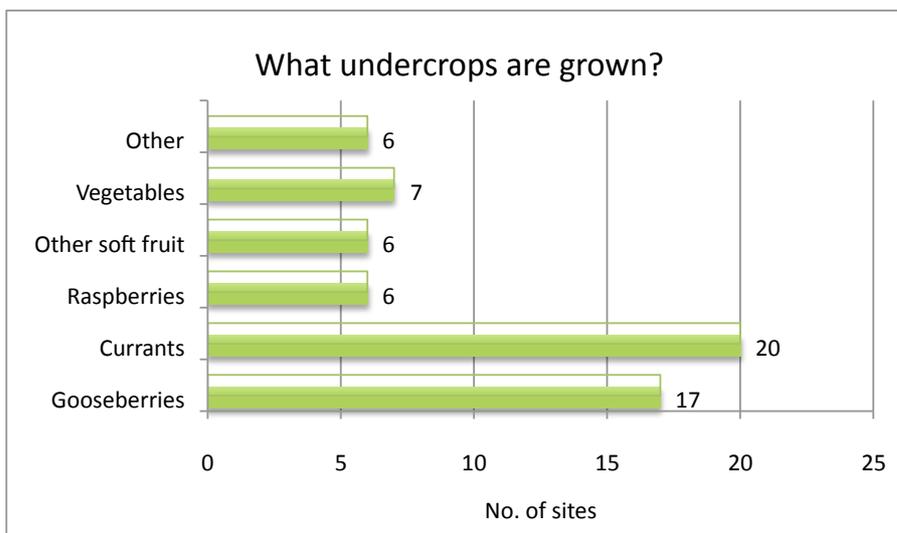
Unsurprisingly, the graph shows that the common method of management is by rotary mower. However, the number of unmanaged sites comes a close second. This is an unusually high proportion. Third most popular is grazing, again this is a little unusual. Comments indicate that the 'Other' category is shown to be mainly a flail mower.



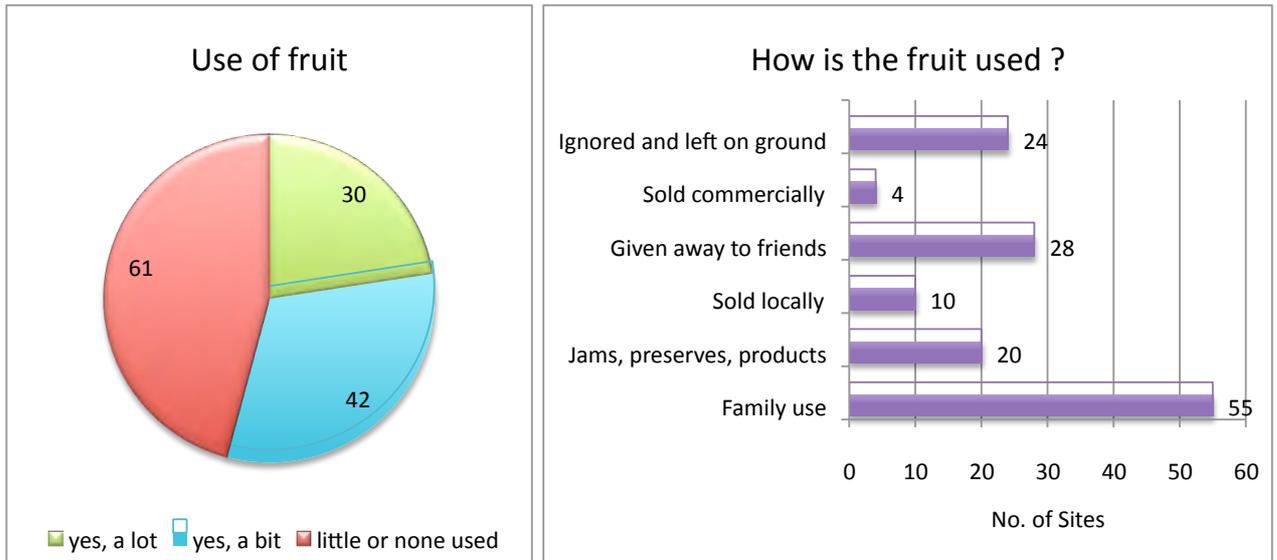
Each orchard can record more than one type of animal grazing the orchard floor. The graph (above left) shows that large herbivores graze a significant minority of the orchards. This is significant because if they are not managed appropriately they can damage trees severely. This is particularly the case with horses who tend to bark strip. Sheep tend to like congregating around larger old trees, and this can cause compaction around the base of trees and hoof damage to surface roots over time.

The pie chart shows that where recorded, herbivore damage is evident on nearly 25% of sites. This is coupled with data from the adjacent graphs indicates that is likely to be serious damage to trees in a significant minority of orchards.

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. The graph shows that undercrops are still common in this area, in particular currants and gooseberries. The Clyde Valley is one of the few remaining places in Scotland where growing undercrops is still practiced widely.



The use of fruit was determined for 133 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 a quarter of orchards report that they use the fruit a lot. Nearly half use little or none. Given the relatively large number of orchards, this represented a significant opportunity.

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 was most common. A little fruit is sold locally, and 4 orchards sell commercially. Though that is unusual today in Scotland, it is perhaps surprising that even in the Clyde Valley only this small number are commercial suppliers.

7 Conclusions

The results presented above, and also in the following sections on anecdotal qualitative data and photographic record, lead to the following conclusions:

- There are still significant amounts of fruit grown in the area
- However, a large amount, probably the majority is not used

- Large numbers of orchards totalling 50 ha have been lost or abandoned
- The aged tree stock dominates but there are significant numbers of younger trees
- Veteran tree features indicate the orchards contain high levels of biodiversity

- Most orchards have little or no management
- Most orchards have less than 30 trees. Only a small minority have over 100 trees
- Currants, gooseberries and other soft fruit is grown in a significant minority of orchards
- Livestock is grazed in significant minority of orchards, but there is evidence of damage to trees resulting.

- The qualitative data demonstrates the depth of history; cultural, economic and otherwise, that this area is custodian to.

To conclude, the Clyde Valley and the rest of South Lanarkshire is still at the present time, the premier orchard area of Scotland. However there are some uncomfortable indicators of its former glory, which provide a strong call to action.

8 Anecdotal and Comment Information

A qualitative data summary for: South Lanarkshire

8.1 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.

8.2 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.

8.3 Anecdotal and Comment Data Categorised by Theme

Local family history of commercial fruit growing

Five of the orchard keepers in the area explicitly reported family ties to the fruit growing industry, going back up to two generations.

Some offered proud memories of its heyday in late 1800s to mid-to-late 1900s. They recalled that their family orchards were very productive, growing plums, apples, and damsons as well as under crops of berries for jam making in local factories or shipping fresh fruit to England.

Picking plums in season was reportedly more profitable than working in mines, which gives a testimony to the economic importance of this industry in the area at the time.

All reported a decline in the market for fruit by mid-1900s. A couple of the keepers indicated that the the focus shifted to glasshouse crops (tomatoes) but those also became unprofitable in due course. One reports his father running the business until his retirement in 1980.

[...] His family have had [the orchard] since 1961. In those days yields were 5 tons apples and 2 tons damsons which were sold to nearby jam-making factory [...]. But they then started buying fruit from England which left local Fruit Growers with no buyer. Main use now is cattle food. SLAN0083

[In mid-1960s] they grew plums commercially getting up to 11 tons of plums from [this orchard]. They did not grow apples as these came from down South so apples at [this site are] relatively new. SLAN0080

The owner [...], is a wealth of info on fruit growing in this area. His grandfather (from Dalserf, born in mid 1800s) and his father (born in early 1900s) were commercial fruit growers like himself. His father started shipping fruit out (to England) and organised this for Law, Braidwood, etc. Growers had to get the fruit picked that day onto trains leaving daily at 5pm to travel overnight (no refrigerated lorries). They shipped strawbs, gooseberries, plums (in season). The gooseberries formed the pulp in jam making (whereas old turnips were used to thicken jam). Lot of jam factories in the area then - Law, Larkhall, Carluke all had jam factories. The fields all around this orchard would have been strawbs and berries - mainly because too hilly for many other uses.

Mines closed for three weeks to allow miners to pick plums - paid more!

Latterly he had been growing tomatoes in Briarneuk greenhouses but no longer doing that.

SLAN0076

The [...] family are well known in Clyde Valley for Fruit Farming. The current owner's Grandfather and Father ran [the orchard] as a business. His Father retired 1979/80. The house [...] was not there when [the orchard] was run as a business. Current owner built this within [the orchard] ground. [...] The family also had tomato greenhouses but after converting from coal to oil heating the subsequent rise in oil costs put them out of business decades ago. SLAN0088

The property of the original cottage [...], this was run as a pick your own fruit farm for many years before the focus moved to the garden centre which was bought by Dobbies. The orchard sits to the side of the house and has numerous apple and pear trees. SLAN0308

This orchard is one of the largest in the Hazelbank area. It was managed until recently by the [...] family however they have now grown very elderly and no longer manage the trees. It was highly productive until around 20 years ago, however since then the amount of work carried out has declined each year with the result that most of the plum trees have now died (there was heavy use of weed killer below the trees) and most of the apple trees being blown over. Very visible from the road this orchard probably does a lot to give the impression that the fruit industry has disappeared in the area. SLAN0015

All five of those historical commercial orchard sites are now past their prime and not being replanted.

Owner believes trees planted 1890 or earlier so over 100 years old. SLAN0076

[The] family have owned [the orchard sites] since 1961 and trees existed then. So majority of trees are veterans SLAN0081/82/83

The apple trees are not managed. SLAN0088

*Difficult to judge age, however all will fall into either over 50 or mid **SLAN0308***

However, one of the younger generation of the keepers expressed an interest in reviving their family orchard site to its former glory.

*The orchard owners have family ties going back several decades with the orchard itself. The owners would greatly appreciate advice and assistance in improving the condition of the orchard. **SLAN0019***

Commercial fruit growing today

Currently, there is little evidence of growing fruit for sale locally. However, keepers of a couple of orchards reported that they do contribute to income on family farms. One of them was planted less than 10 years ago, indicating that demand for locally grown fruit may be increasing.

Although productive, the trees are not pruned regularly, possibly indicating that fruit production is not the main focus of commercial activity and need for a boost in fruit tree care skills.

*The orchard was planted when the house was built and is owned by one of the sons who operate Farm shop. A lot of the fruit is sold at the Farm Shop in season. Some pruning work could be carried out to improve the quality of the fruit. There are a number of bee hives in the East corner of the field. **SLAN0121***

*The orchard is part of a farm yard and is situated beside the farmhouse. Fairly productive plum orchard with some of the produce being sold in the attached farm shop. Little pruning has taken place which needs to be undertaken soon. **SLAN0060***

Mature orchards in visible decline

Qualitative evidence shows a decline and neglect of many orchards in the area, many of them previously thriving as substantial commercial fruit growing or farms sites.

Some sites are well managed and have been removing the trees as they are aging. At many sites however, the ageing and neglected trees remain, many of them dying, recumbent or

suckering and overgrown. Some of the sites are visible from the main road or tourist trails and “give the impression that the fruit industry has disappeared in the area” **SLAN0015**.

Use for grazing and heavy use of herbicide contribute to the decline of some of the sites.

A local estate, Carfin House, boasted three orchard sites in the past but now all of them have disappeared due to sale of the grounds, building of a garden centre (now defunct) and grazing.

The decline has a positive side-effect for biodiversity - at those sites there is plenty of deadwood in canopies and on the ground, often with thick and diverse vegetation cover, including woodland species. In fact, one of the keepers noted that he leaves his orchard overgrown and unmanaged as a haven for wildlife.

*[...] The area has been left for many years and is used for cattle grazing, this has resulted in most of the plum trees dying off and the pear and apple lying on the ground. There is a belt of damsons on the western edge of the field that are self propagating. **SLAN0057***

*The orchard did have in excess of 100 trees a number of decades ago, however only a handful of these remain. There have been 3 plum and 1 pear planted around 2 years ago. **SLAN0116***

*The property once had as many as 60 plum trees and was run semi commercially. Over the last 3 decades the trees have died away and there are very few left, although those that remain are still productive. **SLAN0016***

*Site is no longer an orchard, some evidence of suckers but no viable fruit. Area has been lost to self seeded woodland. **SLAN0123***

The orchard area was at one time considerable, however almost all the plum trees have died with only a few of the originals and a number of wild plum still growing. Damsons become dense through suckers over the years and a number of the apple trees are recumbent or dead.

*[...] **SLAN0113***

*This orchard is one of the most densely planted surveyed to date, most of the plum areas have become overrun with suckers from the original plantings which makes it difficult to distinguish the cultivated stock from wild stock. Many very large pear trees that could be in excess of 150 years old. There are pathways that have been mowed throughout the orchard which indicates that some care has been taken, however there is little or no evidence to show that the trees have been cared for. The apples still crop well although the trees are in a very poor state. **SLAN0115***

Orchard has been part of a working farm up until around 20 years ago when [the keeper's] husband died. Since then most of the fields are now overgrown. Some of the fruit trees are

*in the garden adjacent to the house. However most of them are in a lower field which is very overgrown. **SLAN0058***

*[...] [The orchard] has been left to it's own devices with pretty much all the plum dead, damsons self propagating along the hedge line with the beech and some apples left although a number have toppled. Two very large pear trees of note. **SLAN0012***

*The orchard has two elements, 12 fruit trees are in the immediate garden of the house and are well looked after and cropped. The remainder of the trees are in a field size orchard where most of the crop are left for cattle to eat off the ground. The main orchard is adjacent to both the main road and the Clyde walkway. As such it is highly visible from both sides and as it falls into disrepair it makes a huge impact on the image of the area. **SLAN0119***

*The orchard is now completely overgrown and damsons and plums have self-seeded. This has led to a densely wooded area in parts, while other areas are open field. The orchard keeper said that he didn't see the orchard as un-managed but managed in a way that attracts wildlife. **SLAN0068***

*This orchard was originally part of Carfin House and the orchards would have extended to over an acre. With the demise of the house the grounds have followed the same route and are mostly uncared for and let out for horse grazing. The area to the back of the original orchard is now used as a dumping ground for rubble and fittings from the old garden centre. **SLAN0084***

Mature orchard removal

Many of the farm, estate, garden and commercial orchards in the area have been removed in a more deliberate fashion and replaced with ornamental gardens, lawns, fields or houses/developments.

*The lodge has been extensively developed and the surrounding gardens and areas have all been converted to specimen and native trees. All evidence of fruit trees has been removed. **SLAN0136***

*There are two distinct areas of this property that once supported orchards, however these were grubbed up many years ago and are now either fields or Garden. **SLAN0223***

*An orchard was present up until the nearby road was re-routed. At that point the orchard was removed and is now laid to lawn. **SLAN0190***

*Orchard was situated at the back of the farm, however all that remains is a dead plum tree against the gable end of the barn. Adjacent land was sold for house building. **SLAN0188***

*The area marked on the map was converted to a Japanese Garden around 30 years ago. There is no evidence of fruit trees remaining. **SLAN0199***

*The owner mentioned that the fruit was always stolen, and that the orchard does not exist any longer. **SLAN0115***

*The orchard is part of what was Carfin House, when the house was demolished it was turned into a garden centre. This has now gone into administration and the surrounding parkland and woodlands have been left in a poor state. Area is used for grazing horses. **SLAN0086***

Actively managed mature sites and regeneration

Surveyor's comments indicate that despite the visible declines, there are also a number of well maintained mature and mixed age orchards in the area.

These include many garden orchards.

*The orchard sits to the East of a well maintained walled garden that serves the main house. It is tended by a gardener and her husband and is kept in good order. There have been a number of features added to the garden that would likely have depleted the number of fruit trees present. **SLAN0198***

*The orchard is mostly wall trained trees in the house's walled garden, the trees appear both inside and outside the wall and have been fan trained in the past. Some work has been done on them recently which has kept them pretty much true to the form created. [...] **SLAN0319***

*This is a garden orchard situated right beside the Clyde. Planted in a steep banking it has many paths and steps leading through a lot of interesting planting areas. Owners have been in the house for 50 years and have planted various fruit trees over this time. **SLAN0132***

However, even the well-kept gardens can contain unkempt fruit trees.

*This is a large garden with that is well maintained. The fruit trees are not managed however the rest of the garden is. **SLAN0097***

*This area is part of the main house's walled garden, which is kept very well maintained. The current gardener does not have as much experience of fruit trees but has kept everything in a decent condition. Outside the walled garden there is one remaining example of a fan trained apple, however the rest of these were taken out when the area was converted to a tennis court. **SLAN0183***

Some of the properties with larger field orchards contain a mix of actively managed and unmanaged areas, with the less accessible parts of the sites being left to their own devices.

*The property has a number of different orchard habitats ranging from semi dwarfing modern rootstock close to the house through to unmanaged areas containing the traditional Victoria and damson stock common to the area. The owner is actively replanting in the areas close to the house and this fruit is used by the family, the fruit from the unmanaged area more likely to find its way to the ground and being eaten by the cattle in that area. **SLAN0114***

*The orchard was replanted with around 40 new trees in 2016. These have been planted nearer the house for ease of access. The main orchard has been left for many years and is in a pretty poor state. Owners still work the area close to the house with vigour. **SLAN0300***

Substantial restocking undertaken by these keepers, indicates an interest in future productivity of their orchards. A number of other keepers of large orchards in decline also expressed hope for future substantial restocking and regeneration work at their sites. Clyde Valley Orchards Development Scheme was mentioned as playing an important role in such regeneration work.

*The orchard has been left unmanaged for the last decade and has many dead and recumbent trees. The remaining plum trees are in a poor condition and are unlikely to survive another 10 years. The new owners are very keen to bring the orchard back to life and have just signed up to a CVODs scheme that will replant 50 -60 new fruit trees and allow the apple and pear trees to undergo restorative pruning. This will take place in 2017. **SLAN0174***

*Most of the trees are in a poor state of repair with broken branches and many recumbent. Sward is occasionally grazed by sheep. Owner is interested in replanting trees in the future. **SLAN0127***

*Owner is planning to plant around 150 trees through the Clyde Valley Orchards scheme in 2017. **SLAN0196***

Newly planted orchards do not always fare well either due to lack of care or inappropriate site choice.

*[...] Orchard planted by his father in 1990; apples, plums and one damson tree. Managed until he died approx 4 years ago. Plum trees all dead. No sign of apple trees or fruits. Covered in rubble at path side [...]. Rest overgrown [...]. Remnants of dead trees helps identify it was once an Orchard. **SLAN0089***

*Orchard was planted around 5 years ago as part of a community project. [...] It does not appear to have been maintained since planting with most trees overgrown by sward and pruning required. **SLAN0306***

Rise of community and school orchards

A number of community and school orchards have been planted in the area recently. Most substantial of those are under auspices of Clyde Valley Orchards.

*This land is owned by SLC and has been adopted by Clyde Valley Orchards as a new growing area and source of apples for the production of apple juice. To the East of the identified area a new orchard of over 100 trees has been planted, this will provide crops in the future for apple juice production. **SLAN0159***

The orchard was planted around 16 years ago coinciding with the refurbishment of the [property]. For many years it was run by a third party who gave permission for the Clyde Valley Orchard Group to tend the site and take the fruit. [...] **SLAN0078**

The school has recently been refurbished and the tree planting was carried out in 2016 planting season. School has an education pack that they use in conjunction with the project. **SLAN0313**

The orchard is part of a wider horticultural centre [Clydesdale Community Initiatives (CCI)] that promotes employment and well being for various groups. **SLAN0317**

However, precarity of access to some of the community sites may impact on their future sustainability.

This permission has been withdrawn by the owner [...]. This may in the long term result in the regression of the orchard condition. **SLAN0078**

Places of rest

Intriguingly, a couple of orchards in the area contain historical and recent graves.

Orchard contains the grave of the owner's late husband and of a horse. **SLAN0062**

[...] The OS map records a tomb in the far east (steep) part of [one of the orchard sites on the property]. Owner says two tombs a Janet Dunsmuir 1836 and a John Orr. Could they be previous owners? **SLAN0072**

SLAN0316d.JPG



Plate 01. A young apple tree in a newly planted small orchard in a private garden.

SLAN0151 north view.JPG



Plate 02. Remnants of an orchard in a field border - a common site in this area.

SLAN0040 113.JPG

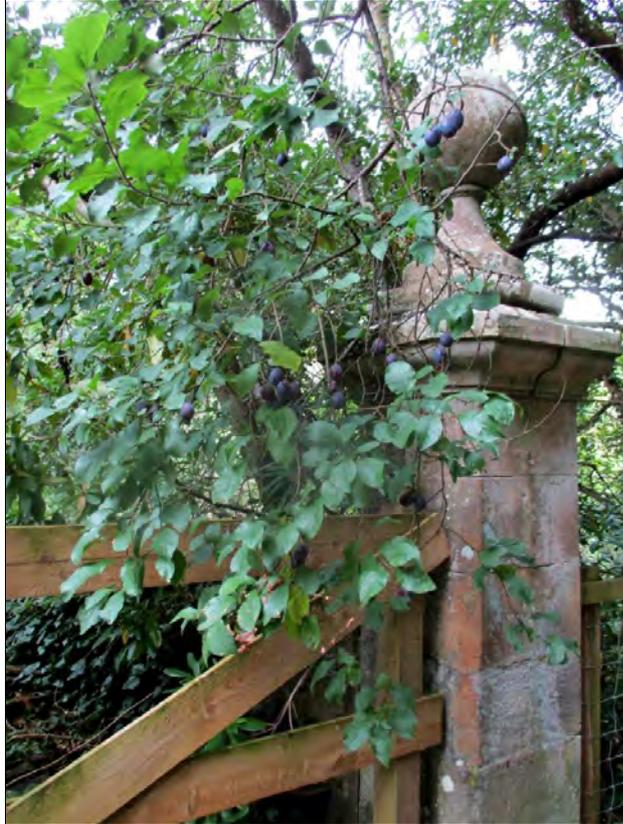


Plate 03. Damsons are common in many orchards in South Lanarkshire.

SLAN0045 3.JPG



Plate 04. Lovely, old but unmanaged pear trees in a field border.

SLAN0099 Bottom orchard dead plums.jpg



Plate 05. Stumps of Victoria plum trees in one of the orchards in Hazelbank area. This orchard was worked commercially up until around 10 years ago and originally there would have been at least 200 plum trees. It was regularly restocked up until 30 years ago.

SLAN0099 Lane cutting between top and bottom orchards.jpg



Plate 06. A dying Victoria plum orchard in Hazelbank area. The trees used to be undercropped by gooseberries and currants, now confined to area near the house.

SLAN0062a cropped.jpeg



Plate 07. A large, well preserved field orchard on the flats near River Clyde. Trees are mostly Victoria plums with a couple of pears and apples.

SLAN0062a.JPG



Plate 08. A large, well preserved field orchard on the flats near River Clyde. Trees are mostly Victoria plums with a couple of pears and apples.

SLAN0088_580_damson row.JPG



Plate 09. A well preserved row of damsons. This used to be a part of a family-run commercial orchard until late 1970s. Since, the family built a house among the trees, but many of the original plum and apple trees still surround it now.

SLAN0134 Spartan Cordon.JPG



Plate 10. A cordon of apples in a new orchard.

SLAN0072_613-hillsideOrchard-NandE of MashockTrack.JPG



Plate 11. A traditional field orchard on steep slopes of the Clyde Valley, thought to be 100 years old. It is dominated by pears and damsons..

SLAN0072_617-hillsideOrchard overview.JPG

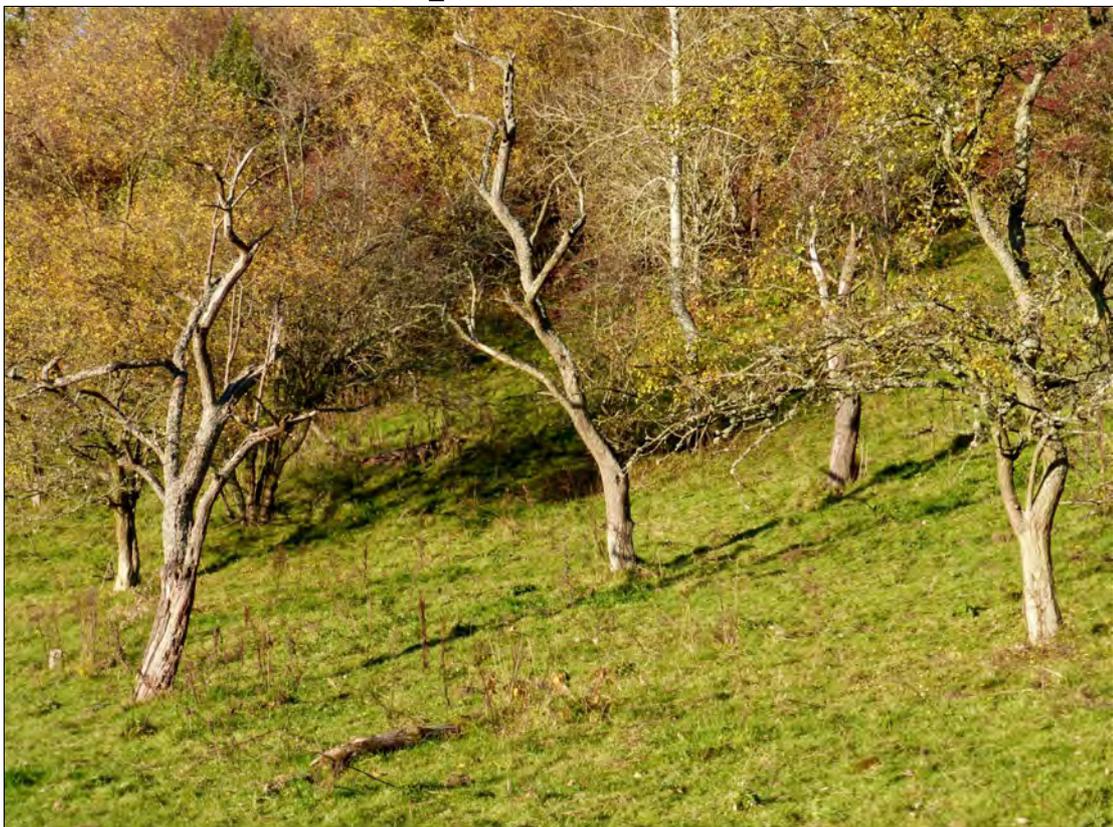


Plate 12. Old pear trees in a traditional field orchard on steep slopes of the Clyde Valley, thought to be 100 years old. You can see holes produced by woodpecker activity on the dead branches of the tree in the middle.

SLAN0174view from front garden to main orchard area.JPG



Plate 13. The orchard has been left unmanaged for the last decade and has many dead and recumbent trees. The remaining plum trees are unlikely to survive another 10 years. The new owners are very keen to bring the orchard back to life and have just signed up to a CVODs scheme that will replant 50 trees and allow for resto...

SLAN0068c.JPG



Plate 14. An example of an a completely overgrown and damsons and plums have self-seeded. This has led to a densely wooded area in parts, while other areas are open field. The orchard keeper said that he didn't see the orchard as un-managed but managed in a way that attracts wildlife.

SLAN0196grafted root stock.JPG



Plate 15. Grafted rootstock ready for planting in a new orchard. The keeper is a member of Clyde Valley Orchards and donates fruit to juicing. They are planning to plant around 150 trees through the Clyde Valley Orchards scheme in 2017.

SLAN0300New apple trees.jpg



Plate 16. New plantings of apple trees in a partially regenerated orchard. The orchard was replanted with around 40 new trees in 2016. These have been planted nearer the house for ease of access. The main orchard has been left for many years and is in a pretty poor state. Owners still work the area close to the hou...

SLAN0306 View north.jpg



Plate 17. An example of a newly planted but neglected community orchard. Orchard was planted around 5 years ago as part of a community project. It does not appear to have been maintained since planting with many trees overgrown by sward of rushes and pruning required.

SLAN0076_837-SE bndry along road-lookingSW.JPG



Plate 18. Very tall apple and pear trees in a garden orchard. Owner believes trees planted 1890 or earlier so over 100 years old. Pear varieties include Maggies (wee and hard) and Winter Nellies (hard, big, red blush; went into corn stacks and were taken out in New Year when soft enough to eat).

SLAN0078 View from Gate up into orchard.JPG



Plate 19. A 16 year old orchard which used to be managed by the Clyde Valley Orchard Group. New site owner withdrew permission for use. This may result in the regression of the orchard condition in the long term.

SLAN0086 plum suckers on left hand side.JPG

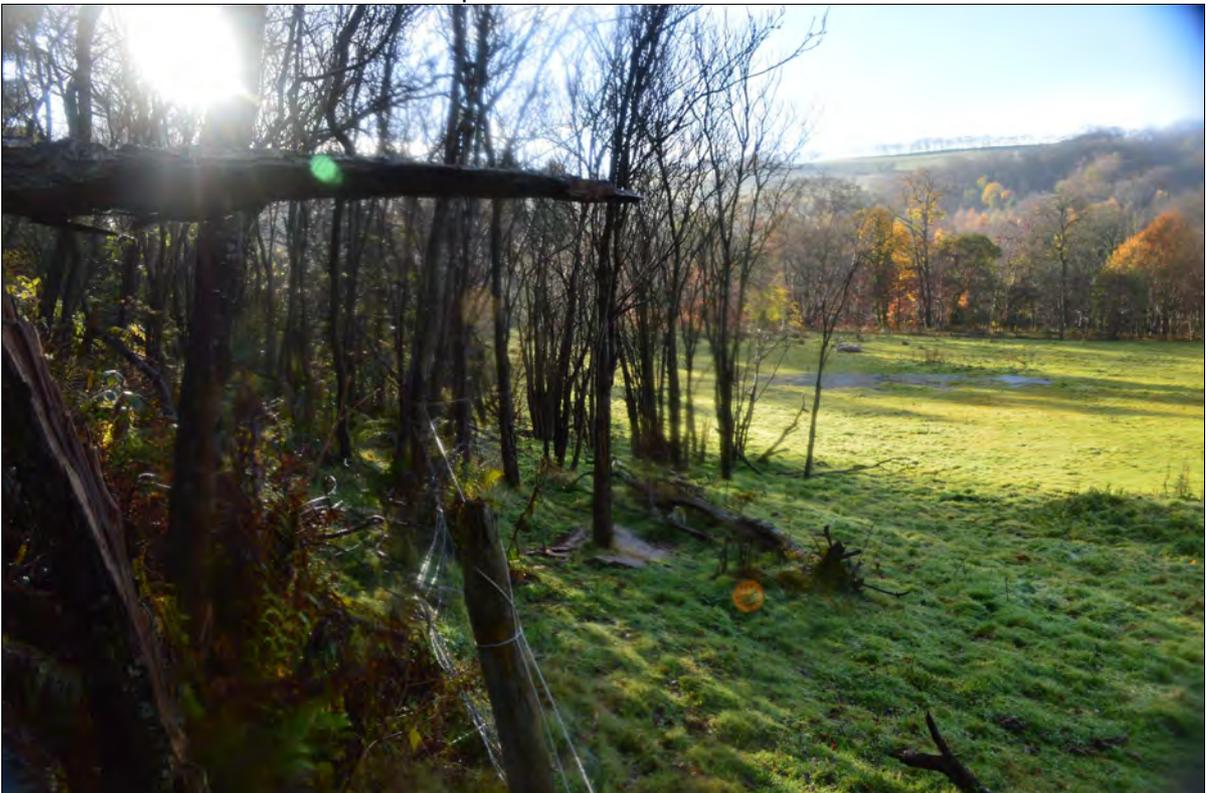


Plate 20. An orchard site where grass pasture has now replaced fruit trees. The only remaining evidence of an orchard are plum suckers on the left. Horses are grazed in the field.

SLAN0313 New orchard at Braidwood school.JPG



Plate 21. A newly planted school orchard at Braidwood. It seems to be well integrated with curriculum as the school has an education pack that they use in conjunction with the project.

SLAN0317 New Orchard at CCI.jpg



Plate 22. A new community orchard planted by Clydesdale Community Initiatives (CCI) - a wider horticultural centre that promotes employment and well being for various groups.

SLAN0060 Hen House.jpg



Plate 23. A productive plum orchard in a farm yard, hosting a hen house. Some of the produce is sold in the attached farm shop.

SLAN0121 Plum trees with Bee Hives.jpg



Plate 24. A new orchard of apples and plums planted in 2006. Photo shows the plums with some bee hives in the background. Produce is sold in a farm shop operated by the keeper.

SLAN0209 Remains of Plum orchard.jpg



Plate 25. Remains of a field plum orchard being used for grazing horses.

SLAN0319 Outside of walled garden apple.JPG

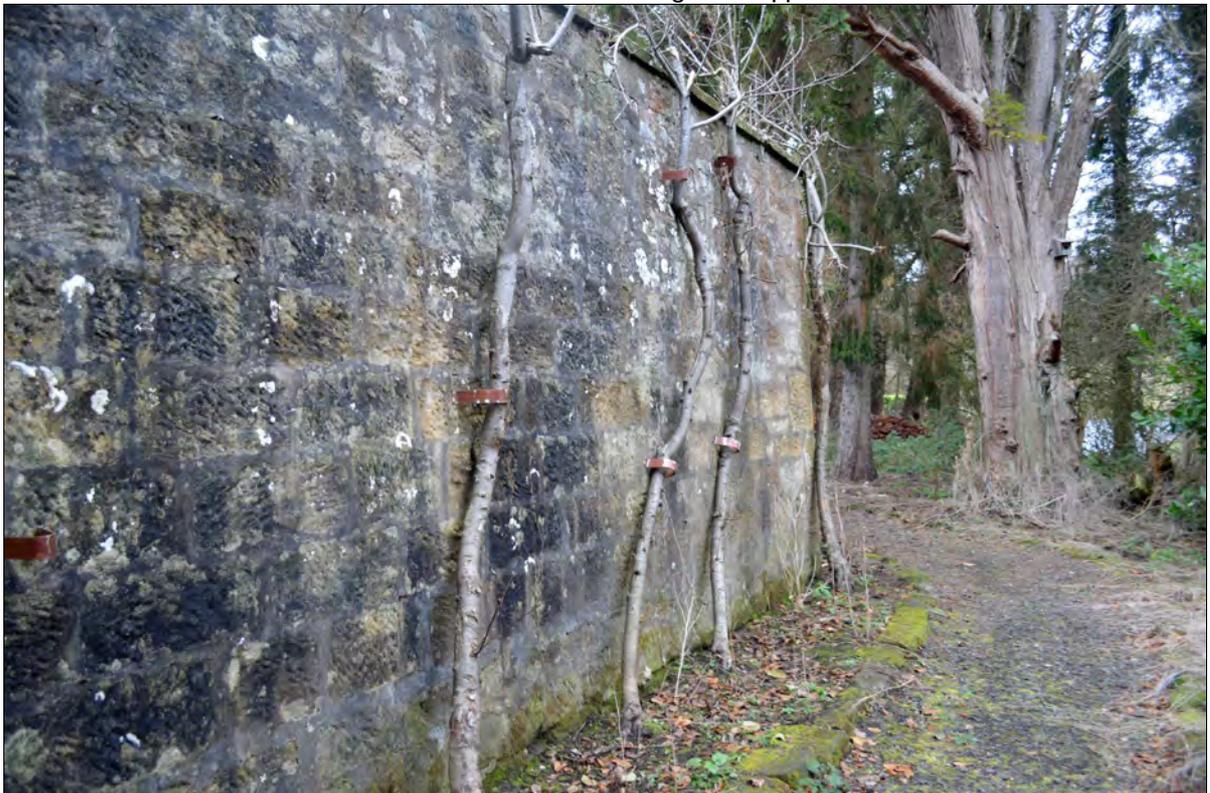


Plate 26. Mature apple tree cordons outside a walled garden.

SLAN0198 Outside Walled Garden (2).JPG



Plate 27. This well cared for mature orchard sits to the East of a well maintained walled garden that serves the main house. It is tended by a gardener and her husband and is kept in good order. There have been a number of features added to the garden that would likely have depleted the number of fruit trees present.

SLAN0199 Japanese Garden.JPG



Plate 28. Many orchards in the area have been replaced by ornamental gardens. In this case the orchard site was converted to a Japanese Garden around 30 years ago. There is no evidence of fruit trees remaining.

SLAN0009 Apple Espalier.JPG



Plate 29. Well cared for espalier apples in an orchard which is a part of a large garden.

SLAN0183 Wall trained Apple.jpg



Plate 30. The site area is part of the main house's walled garden, which is kept very well maintained by a gardener. Despite his lack of experience of fruit trees he's kept them in good condition. The photo shows one remaining fan trained apple outside the walled garden - others were removed during conversion to tennis co...

SLAN0321 Clyde walkway apples.jpg



Plate 31. Apple trees sitting on the verge of Clyde public walkway which may have been planted when this was established around 10-12 years ago. Some of the fruit may be picked by local folk but a fair bit still remains on the trees late into the season.

SLAN0175 2.JPG



Plate 32. A frosty day in a small orchard of mixed age, managed for personal use and local fruit sales.

SLAN0188 Remains of plum tree on gable end.jpg



Plate 33. This orchard was situated at the back of the farm, however all that remains is a dead plum tree against the gable end of the barn. Adjacent land was sold for house building.

SLAN0107 dead plum stumps.jpg



Plate 34. This orchard is one of the largest in the Hazelbank area. It was highly productive until around 20 years ago, but due to decline in care most of the plum trees are now dead and the apple trees are blown over. Due to its visibility, this orchard does a lot to give the impression that the fruit industry has disappeared in th...

SLAN0115 Base of Pear tree with A4 clipboard for scale.JPG



Plate 35. One of many of very large pear trees in a large neglected orchard. These are likely 150 years old.

SLAN0115 General view of orchard from front of property.JPG



Plate 36. A large neglected field orchard with a very dense planting of over 250 plums, apples and pears. Most of the plum areas have become overrun with suckers from the original plantings which makes it difficult to distinguish the cultivated from wild stock. The apples still crop well despite being in a very poor state.

SLAN0115Dead Plums.JPG



Plate 37. Dead plum trees in a large neglected field orchard.

SLAN0116 View over remaining orchard.jpg



Plate 38. A handful of trees remaining from a large orchard which had in excess of 100 trees a number of decades ago. The orchard is well maintained with a few new trees planted recently.

10 Appendix

10.1 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:

- The OS MasterMap 'Orchard' attribute.
- Existing survey data. Sites listed in existing surveys are reassessed.
- Visual search of aerial and historic mapping.
- Additional existing datasets:
 - ♦ 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

10.2 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.

10.3 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 42 mins. The maximum time on site was reported as 150 mins, while the minimum was 10 mins.

In South Lanarkshire, the total time-on-site was recorded as 147 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 16 mins to complete a submission in this area.

The total time recorded for filling the survey webforms is 58 hours for this area.

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