

Dane Valley Woods

Land Management Plan

2022-2031



Dane Valley Woods



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This management plan has been produced by White Horse Ecology on behalf of the Dane Valley Woods Steering Group. More information about the site and their work can be found on the Dane Valley Woods website and Facebook page:

Website: <http://danevalleywoods.org/>

Facebook: <https://www.facebook.com/DaneValleyWoods>

Mike Phillips of White Horse Ecology has more than 20 years' experience working in nature conservation and has been working with Dane Valley Woods since 2008. He has worked with community groups, helping them to develop their own plans that suit the needs of their site and the resources they have at their disposal. He is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). He has also been a committee member of the Kent Reptile and Amphibian Group since 2004.

Thanks are due to all of the Dane Valley Woods group that have helped with the creation of this report as well as all of those people who have contributed wildlife records. Particular thanks are due to Steve Darling and Michaela Flint, as well as the rest of the Steering Group, who have spent many hours providing input to this plan and for helping to ensure that the plan is an accurate representation of the work of the Dane Valley Woods group.

This document has an associated work plan that complements this report. It is a shorter document that lists the actions and prescriptions generated by this report.

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1. Introduction

Dane Valley Woods is an area of public open space that is owned by Thanet District Council in Margate. It is managed by Dane Valley Woods, a local group dedicated to the creation of a community woodland, with assistance from Thanet District Council.

All of the trees at Dane Valley Woods have been planted by volunteers since 2003 on a former landfill site adjacent to Dane Valley Rd.

This plan serves a number of purposes:

- To guide the work of Dane Valley Woods over the next 10 years;
- To act as a summary of the achievements of Dane Valley Woods since its inception in 2003;
- To describe the habitats created by the group and the wildlife found within them;
- To clearly set out the ethos of the group, what it is trying to achieve and why;
- To provide an accessible document that can be viewed by interested members of the public;
- To provide information about the management of the site that can be provided to Thanet District Council as the landowner;
- Support future funding applications.

It is hoped that this document will be both comprehensive and accessible.

Dane Valley Woods is an unincorporated group, which is run by its steering group. The group has permission from, and the support of, Thanet District Council to manage the woodland primarily as a community resource that provides the opportunity for local people to enjoy wildlife, open space and to get involved in enhancing the local area. It forms part of a wider network of greenspaces within Thanet. Thanet District Council retains responsibility for some elements of the area as the landowner. Kent County Council manages a cycle path that runs through the middle of Dane Valley Woods.

1.1. Location

Dane Valley Woods is located in Margate, south of the town centre between Dane Valley Rd and the Margate to Broadstairs railway line. Grid reference of centre of site: TR 365 698

Dane Valley Woods - Location



Figure 1: Location of The Dane Valley Woods

1.2. Information gathering

This management plan was compiled with specific reference to information gathered from the Steering Group and from the author's knowledge of the site and its development over the last 13 years. Information has been collected from the following sources:

- Meeting minutes from the Dane Valley Woods Steering Group;
- Site visits undertaken throughout 2021;
- Input from public consultations and feedback;
- Information gathered during wildlife surveys;
- The constitution of Dane Valley Woods.

1.3. How to use this management plan

Management plans are not designed to be static documents that never change. They are part of a process that involves identifying aims and objectives, putting a plan into place and then reviewing the success of the plan, adjusting as necessary. A typical management flow diagram can be found below.

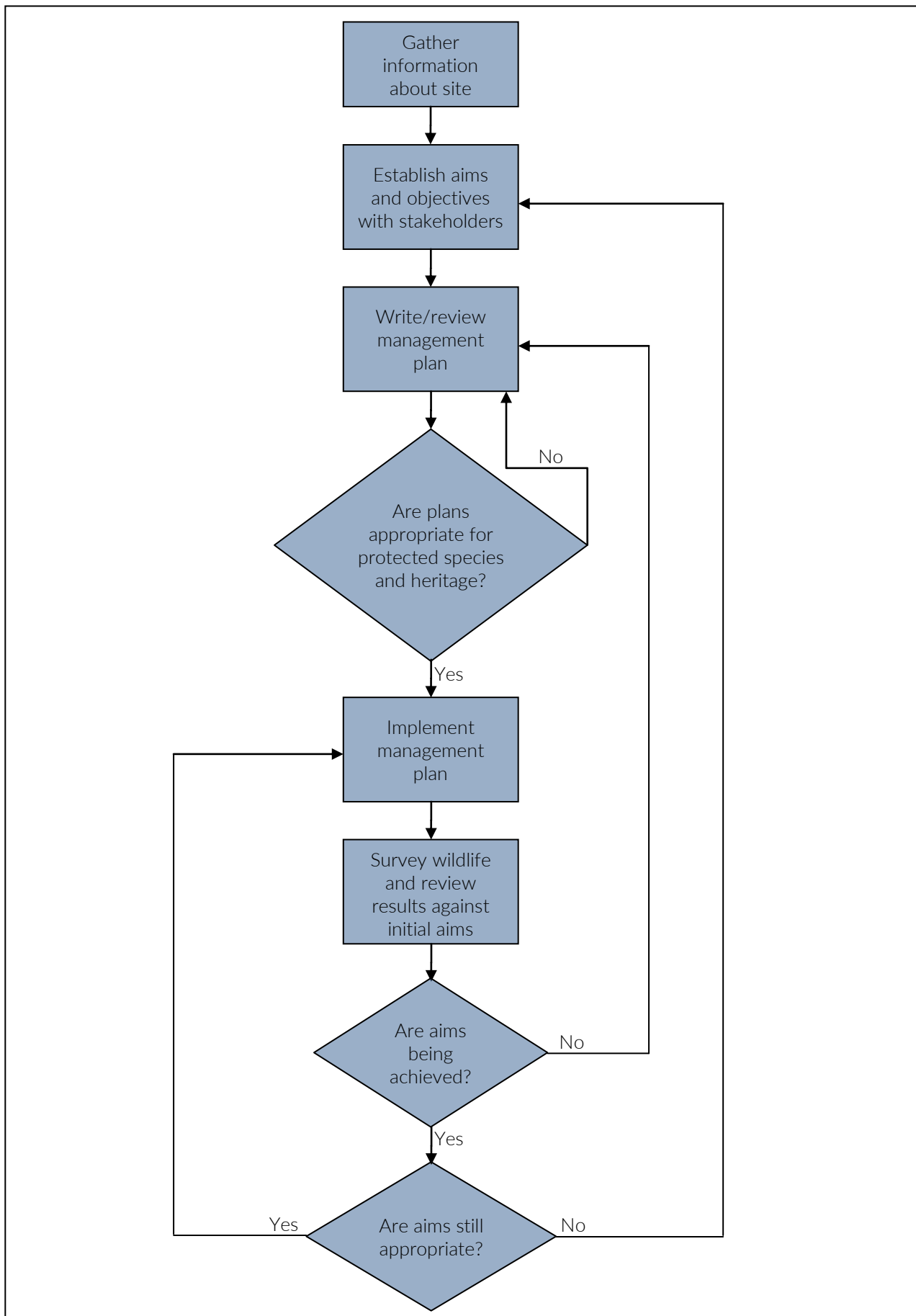


Figure 2: Management plan flow diagram

2. Guiding principles

There are a number of principles that guide the work of the group that are fundamental to some of the decisions that are taken around site management. These ideas are distinct, though linked to, the management aims and objectives that are found in section 4 of this plan. The guiding principles include, but are not limited to:

- The woodland is managed for everybody to enjoy;
- The woodland is managed by a democratically elected and accountable Steering Group;
- Dane Valley Woods is a not-for-profit group and no Steering Group members are paid for their roles within the woodland;
- The group raise money externally to support their work including obtaining money from grants, business donations, personal donations and fundraising events;
- Wherever possible, business donations are accepted from small and medium sized local companies, whose ethos aligns with this plan. There is no corporate sponsorship and the group will not accept donations for carbon offsetting and will not engage with carbon credit schemes. This ensures that the group has freedom to manage the woodland purely for the benefit of wildlife and local people;
- The group only plant whips and small trees that do not require watering to aid their establishment. They believe that when large trees are planted, they will always struggle to establish themselves in the soil at Dane Valley Woods and require too many additional resources to keep them alive. Small trees require only mulch and the removal of vegetation that may overwhelm them in the first couple of years. Smaller trees are also much cheaper to purchase. Generally, the largest whips planted are 1.5 metres tall. All trees are of local provenance wherever possible to limit the spread of tree diseases and to ensure that trees planted are suited to local conditions.
- Only native or naturalised trees are planted at Dane Valley Woods as these trees offer the best opportunities for native wildlife. Most of them will also cope with a degree of climate change and natural regeneration will replace any that do fail in the future due to climate change. There are some trees that do not fit these criteria in the woods and some may be removed if they are likely to become invasive;
- Dane Valley Woods have discontinued the use of tree shelters and tree guards, largely due to the lack of rabbits or deer on the site and due to the shelters being made from plastic.

3. Site description

Dane Valley Woods is a relatively new community woodland situated in Margate, UK. Planting commenced in 2003 with the support of Thanet District Council. It is on the site of a former landfill facility and is public open space. The site is 5 hectares in size. Since 2003, the volunteer group Dane Valley Woods has been planting trees on the site and providing opportunities for local people to get involved with the creation of the woodland. The complete site consists of the community woodland and the Dane Valley Woods headquarters situated at Dane Valley Allotments adjacent to the woods. The site is now a combination of newly planted trees, grassland and brambles. It supports a rich diversity of wildlife and a variety of different habitats. This is best shown in the aerial photograph in figure 3. A forest school occupies a one acre plot of land between Dane Valley Woods and Dane Valley Allotments. This land is not under the management of Dane Valley Woods and will not be included in this plan.



Figure 3: Aerial view of Dane Valley Woods from the south © Swift Aerial Photography

3.1. Soils and geology

The underlying geology of Dane Valley Woods is chalk. However, the surface soils of the site are more complex due to disturbance over recent years. Most of the site was once a landfill complex which has since been capped with clay though some areas have no cap and others have also had topsoil added. As a consequence, growing conditions are variable across the site. The poor condition of the soil for growing trees has been challenging but the

end result is a woodland that has a very open feel and supports more wildlife than if trees had formed a continuous canopy.

3.2. Access

A cycle path adopted by Kent County Council runs roughly east to west across Dane Valley Woods from Dane Valley Rd to the railway bridge. This tarmacked surface provides the best access for vehicles to the site. A number of informal paths have been maintained by the volunteer group. These paths (shown in figure 4) are not Public Rights of Way but are well use by local people who walk dogs or use the woods for other recreational activities. Some of the paths have become overgrown and will be reinstated and other areas of the wood have no access which will be addressed over the course of this management plan cycle.

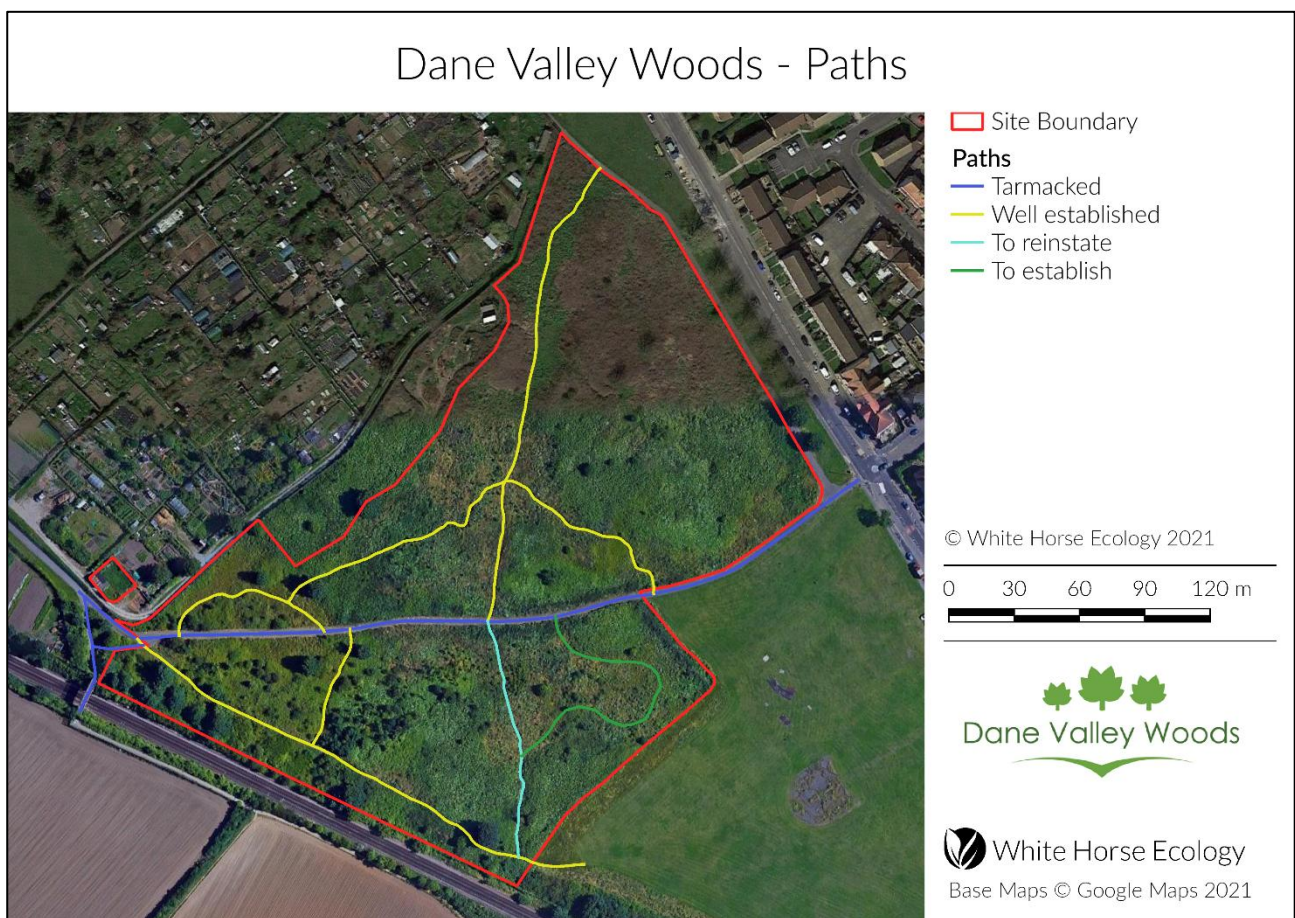


Figure 4: Access at Dane Valley Woods

3.3. Compartments

To help guide planting and to be able to easily refer to certain parts of the wood the site has been split into compartments. These compartments reflected natural divisions in the wood created either by vegetation structure or the network of access paths and can be seen in figure 5.

Compartment summary		Area (hectares)
1a	Railway: Partly planted with good natural regeneration	0.35
1b	Planted pre 2008 with some of the largest trees on site	0.99
1c	Planted with large amounts of hazel and includes solstice circle	0.67
2a	Planting age decreases from north to south	1.11
2b	Large areas dominated by bramble	1.88
3	Dane Valley Woods HQ	0.02



Figure 5: The compartments of Dane Valley Woods

3.4. Other features within the wood

A number of other features can also be found within Dane Valley Woods. These range from interpretation and noticeboards to benches. They are an important part of ensuring that the community feel welcomed when visiting the woodland and also creating a feel that the site is being looked after and managed, rather than being left unmanaged. These features, as well as the glades (both already in place and those that are proposed within this plan) are shown in figure 7.



Figure 6: Fido the fox and bench within a wildflower glade



Figure 7: Glades and other features of interest at Dane Valley Woods

3.5. Designations

Dane Valley Woods has been designated as Local Green Space by Thanet District Council. Additionally, lowland deciduous woodland is considered to be a Natural England Priority Habitat under Section 41 of the Natural Environment and Rural Communities Act (2006). There is a recommendation about how this will be addressed later in this plan.

3.6. Urban green space and links to the wider countryside

The importance of urban sites such as Dane Valley Woods is greater than the sum of the land given over to wildlife on the site itself. These areas provide essential green space that acts as a refuge to wildlife which, in turn, will increase the amount of wildlife in nearby gardens. These spaces also provide important areas of recreational space for local residents and access to wildlife. Additionally, despite dense housing in this part of Margate, there are currently still physical links to the wider countryside provided, in part, by Dane Valley Woods. These allow for the movement of wildlife both to and from Dane Valley Woods to adjacent sites. Equally, sites such as these can be used as 'stepping stones' by more mobile animals such as birds as illustrated by the presence of species such as kestrel (*Falco tinnunculus*). The most important habitats found adjacent to Dane Valley Woods are:

- The railway line and its surrounds provide a linear corridor through farmland to Ramsgate and the countryside beyond.
- Dane Valley Woods forms part of a 'green wedge' that runs from Dane Park and through open, green space to Mockett's Wood and beyond.
- Farming areas to south of the railway line. Although these areas are degraded from a biodiversity perspective as they are predominantly arable the remaining hedgerows and narrow headlands do provide links to the wider countryside.

3.7. Biological recording and protected species

Dane Valley Woods is a relatively new habitat. However, in the last ten years, the group has made great efforts to start recording some of the wildlife that is present in the woods. It is important that these records are sent to the various recording groups in Kent. One way that this can be done is to record sightings on apps like iRecord that are shared with recording groups and the Kent and Medway Biological Records Centre.

Whilst the overarching aim of nature conservation management within Dane Valley Woods is to enhance habitats for all species groups, there are specific species that require attention in their own right due to their protected status. This section will identify those species that have been recorded on site, are protected and which legislation they are covered by. Other important, but not protected, species will be dealt with in the assessment of habitats. Managing sites with protected species needn't be overly restrictive. There are simply certain activities that should be avoided.

Species	Locations (if known)	Notes
<p>The Conservation of Habitats and Species Regulations 2017</p> <p>This is the highest level of designation and provides protection against killing, injury and disturbance. The breeding and resting habitat of these species is also protected</p>		
Common pipistrelle (<i>Pipistrellus pipistrellus</i>)	Common pipistrelle bats have been recorded at Dane Valley Woods, but it is likely that other species are present. The scrub and long grass will provide plenty of feeding opportunities for bats and, as trees become larger, roosting opportunities will increase in number. Further recording is recommended.	
Dormouse (<i>Muscardinus avellanarius</i>)	Dormice have not been recorded in Thanet as they are associated with areas that have a lot of ancient woodland. However, the railway line provides good connections with the wider countryside and the habitat at Dane Valley Woods is ideal for dormice. A one-off nesting tube survey may be useful.	
Great crested newt (<i>Triturus cristatus</i>)	Native colonies of great crested newts are not present in Thanet (though introduced populations can be found in Monkton and at Quex Park). They have not been recorded at Dane Valley Woods	
<p>Wildlife and Countryside Act (1981) – protection under section 9.1 of the act</p> <p>Species identified under schedule 5 of the act have protection against killing or injury although their habitat is not protected.</p>		
Viviparous lizard (<i>Zootoca vivipara</i>)	Recorded throughout the site in all compartments	Any works that include mechanical control of long grasses or other vegetation should be avoided between March and October as should major ground disturbance in winter months where reptiles may be hibernating. Keeping grass short (amenity grass and paths etc.) prevents areas becoming suitable for reptiles so can be mown at any time.
Grass snake (<i>Natrix helvetica</i>)	Neither species recorded on site but both have been observed on the adjacent Dane Valley Allotments site. Adders are not found in Thanet.	
Slow-worm (<i>Anguils fragilis</i>)		
<p>Wildlife and Countryside Act (1981) – protection under section 1.1 of the act</p> <p>Wild birds are protected against killing as well as damaging or destroying nests and eggs.</p>		
All wild bird species	Found throughout the site.	Vegetation management of potential nesting sites should not take place during the breeding season (usually

March to August) unless using hand tools and checks are made for nests.

Other protected species

Common frog (*Rana temporaria*) and smooth newt (*Lissotriton vulgaris*) are protected from being sold or advertised for sale. Common shrews (*Sorex araneus*) and pygmy shrews (*Sorex minutus*) are also protected from being trapped and a licence is needed for this work. These species are all known to be present on site. However, this has little impact on the management of the woodland.

3.8. Non-native and invasive species

As with all sites, both non-native and invasive species are present at Dane Valley Woods. These species have the potential to spread rapidly and threaten the status of native species. Those identified include:

- Harlequin ladybird (*Harmonia axyridis*) – a threat to native ladybirds.
- Winter flowering heliotrope (*Petasites fragrans*) – moisture loving winter flowering plant that can dominate if left unchecked.
- Ring-necked parakeet (*Psittacula krameri*) – a large and noisy bird that has become well-established in Thanet.
- Sycamore (*Acer pseudoplatanus*) – a rapidly spreading tree that can shade out regeneration of native species.
- Turkey oak (*Quercus cerris*) – an introduced oak species that can hybridise with native specimens.
- Brambles (*Rubus fruticosus* agg.) – native but invasive. Dominates in parts of the woods.

Whilst little can be done about ladybirds and parakeets, non-native invasive plants should be removed if safe to do so and where this does not compromise protected species. The extent of brambles prevents the attempted removal of all plants. Sycamore saplings should be pulled when encountered and turkey oaks should be considered for removal. A tree popper or mattocks could help with this work.

3.9. Archaeology

St Peters Footpath is thought to have gone through Dane Valley Woods and archaeological excavations have taken place to establish whether this was the case. Although the potential for unearthing archaeological remains has most likely been compromised by the site's former uses as allotments and more recently as a landfill, the group's activities should be mindful of the fact that Roman and Anglo-Saxon finds have been recorded within half a mile of Dane Valley Woods.

3.10. Habitats

In order to make appropriate management decisions it is necessary to assess the habitats that are found at Dane Valley Woods. This ensures that any future management does not compromise the wildlife and protected species on the site. The site can be split into broad habitat types.

3.10.1. Woodland

Large areas of Dane Valley Woods have been planted with native species (as well as some sweet chestnut) since the decision to create a woodland on the site was taken. The first trees were planted in 2003 and planting has continued most winters since then. There are distinct areas where a single species has been planted and areas where a mixture of low growing shrubs and trees have been planted. The variations in soil type have had a considerable impact upon the growth of trees at Dane Valley Woods. Areas where there is a clay cap covering the former landfill site do not lend themselves to fast tree growth. As a consequence, some of the oldest trees on site have not reached the size expected since planting. Most trees have been planted without guards or mulch mats as this was found to be the most effective way of preventing vandalism. The lack of a mulch mats has resulted in newly planted trees facing considerable competition from grasses and ruderal weeds such as stinging nettles (*Urtica dioica*), cow parsley (*Anthriscus sylvestris*) and alexanders (*Smyrnium olusatrum*). This competition has led to some of the planted trees being shaded out and having compromised growth rates.

Species planted include:

English oak	Hazel	Hawthorn	Silver birch
Dogwood	Wayfaring tree	Wild service tree	Box
Spindle	Guelder rose	Sweet chestnut	Hornbeam
Rowan	Whitebeam	Cherry	Field maple
Beech	Willow	Ash	

Sycamore, hawthorn, blackthorn, walnut and elder have established naturally, particularly in compartments 1a and 1b.

However, the slow growth rate of trees does have considerable advantages. Dane Valley Woods still has a very open feel resulting in more opportunities for wildlife and for the interface between woodland and other habitats to cover a larger area than if a continuous canopy had developed. Approximately 6200 trees have been planted at Dane Valley Woods. Consequently, the opportunity to plant more trees is limited to infilling areas where previously planted trees have failed. The focus for the group is now increasingly on conserving and enhancing areas of grassland and open space.

Figure 8: Mixed native planting



Figure 9: Dogwood



3.10.2. Grassland

Whilst the majority of Dane Valley Woods was grassed in 2003, a combination of tree planting and bramble growth make this habitat considerably less widespread in 2021. The naturally occurring grassland is of varying character with some supporting a range of meadow flowers such as oxeye daisy (*Leucanthemum vulgare*), yarrow (*Achillea millefolium*), grass vetchling (*Lathyrus nissolia*) and for only the second time in 2021, pyramidal orchid (*Anacamptis pyramidalis*). Red bartsia has also been found for the first time recently, an excellent development showing how the meadows are evolving. Other ruderal species as discussed earlier, such as alexanders and stinging nettles can dominate in places, particularly where the ground has been disturbed. Additional grassland can be found at the headquarters at Dane Valley Allotments where a pond has also been installed.

Grassed areas are becoming increasingly important at the site and the group are looking to develop these areas further by creating meadow glades, including one which was seeded and the topsoil was removed prior to creation. Other areas of grassland that are not particularly species rich and are dominated by rank grasses provide excellent reptile habitat and these are also being prioritised for conservation. Paths and the areas around them also create areas of grassland with a variety of sward heights.



Figure 10: Open grassy area of Dane Valley Woods



Figure 12: Wild carrot



Figure 13: Grass vetchling

3.10.3. Brambles

There are significant areas of Dane Valley Woods that are dominated by brambles (*Rubus fruticosus* agg.). The figure below shows the extent of areas that are completely dominated by brambles. Although brambles occur in other parts of Dane Valley Woods, the areas shown contain almost nothing else apart from brambles. Although bramble supports nesting bird species and provides cover for reptiles and mammals, it also makes tree planting nearly impossible due to bramble regrowth shading out new trees. In some areas, bramble has also overtaken areas of planted trees. However, in most areas of the site, trees are now large enough to outcompete the bramble and will ultimately shade out the bramble. Consequently, the continued spread of bramble, whilst still of concern, does not threaten all of the work of the group. Future priorities should focus on preventing bramble from encroaching into grassland areas rather than reversing the tide and removing large areas of bramble. For the latter technique to be successful, regular mowing of the area where brambles had been removed would be necessary to prevent their return.

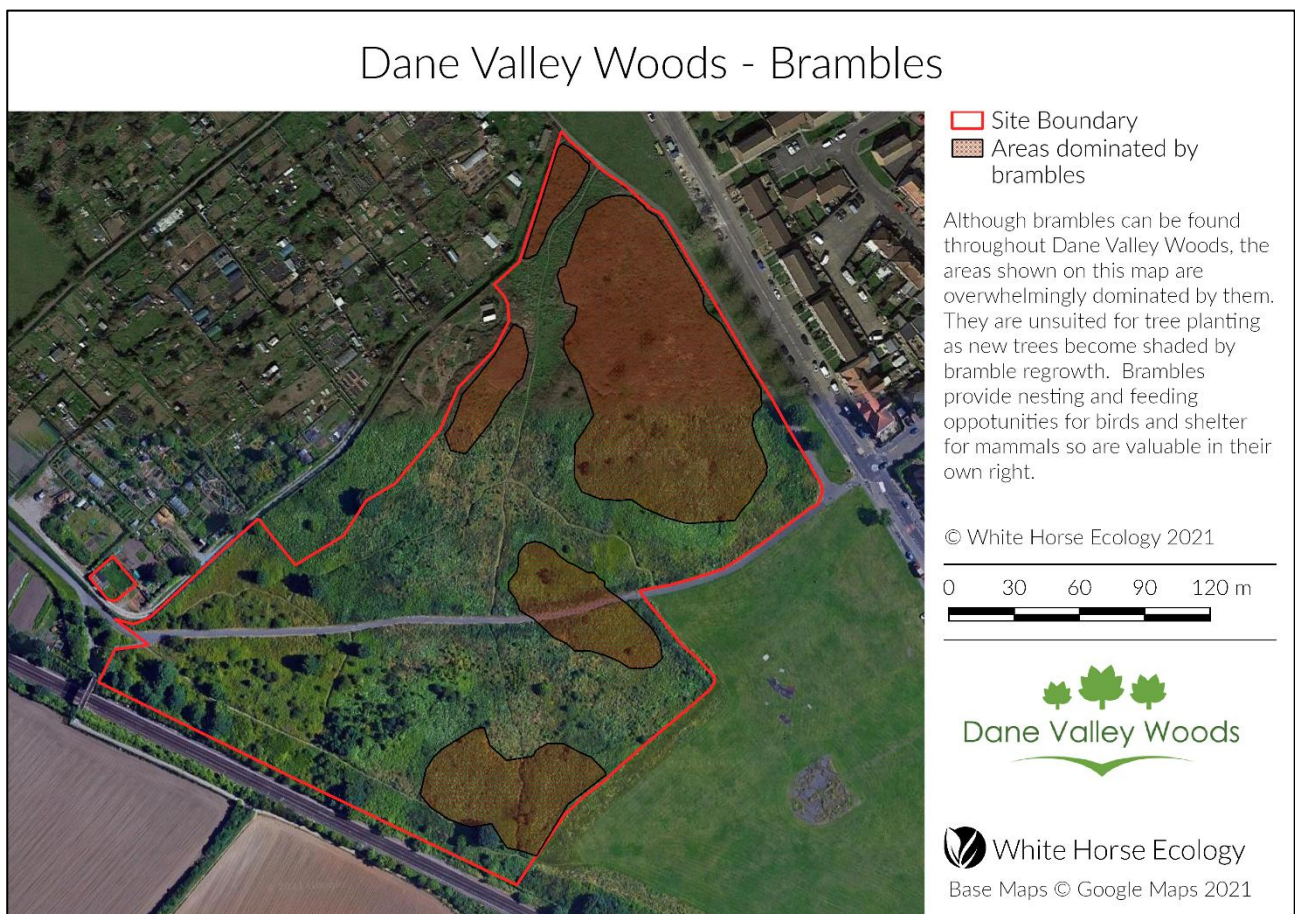


Figure 14: Extent of brambles at Dane Valley Woods

4. Mission statement and objectives

4.1. Mission statement

Dane Valley Woods aims to be a sustainable community-owned natural wildspace in the heart of Margate; encouraging positivity, and enabling public participation in creating and managing the woods for wildlife, learning, enjoyment, health and well-being.

4.2. Objectives

The objectives of the group, including objectives that go beyond the land management plan for Dane Valley Woods include:

Land management

1. Create a series of glades and/or meadows that support a range of botanical species, invertebrates and reptiles.
2. Maintain the existing extent of tree cover. Although tree planting is still a priority, this will not be done at the expense of open spaces and grassland and will focus more on tree aftercare and infilling gaps.
3. Maintaining a series of well-managed and well used footpaths.
4. Creating places for wildlife.
5. Keeping the site clear of litter.

Understanding the site

1. Continue to record wildlife on the site and broaden the number of species groups studied.
2. Continue to increase understanding of how the site responds to different management techniques.
3. Provide training events and school visits where possible to increase learning opportunities.

Community engagement

1. Continue to provide opportunities for people to get involved in site management by running volunteer events and tasks.
2. Review interpretation strategy, both on and off site including use of digital media.
3. Use local events to promote the work of the group and secure donations.

A resilient future

1. Continue to develop a strong leadership group in the form of a healthy and vibrant Steering Group.
2. Secure funding through grants, donations and sponsorships to secure the financial future of the group.
3. To work with Thanet District Council to secure the site as a community woodland in perpetuity.
4. Seek designation as a Local Wildlife Site.

5. Strengths and threats

Dane Valley Woods has been established now for over 18 years, which in itself is testament to the fact that the group has stood the test of time. New groups, with an inevitable turnover of members, can struggle to maintain momentum and fold in their first years. This section will assess the strengths of the group as well as some of the threats that the group and the woodland still face.

Strengths	Threats
<p>Volunteer task days, despite a brief hiatus during the Covid-19 lockdown, events are well attend and numbers are more stable than they have ever been during the group's history.</p>	<p>A lack of volunteers will threaten the success of the group and put additional stress on the key members of the Steering Group. Opportunities to recruit more volunteers and Steering Group members should be pursued actively.</p>
<p>The woodland enjoys significant amounts of support from the local community. The woods are valued by walkers, dog walkers, wildlife enthusiasts as well as people who use the woods as part of their everyday business. The site has now developed into a haven for wildlife, and whilst work still needs to be done to celebrate this and increase understanding locally, Dane Valley Woods is establishing its place within local people's hearts.</p>	<p>The lack of a formal agreement between Dane Valley Woods and Thanet District Council (TDC) leaves the site vulnerable to alternative uses. In the past, TDC have been very supportive of the group and have contributed significant resources to maintain the group's momentum. Recent years have seen more variable levels of support given by TDC and there is a fear that the future use of the land at Dane Valley Woods could be vulnerable to change. Dane Valley Woods will actively pursue a range of options to work with TDC to address this threat.</p>
<p>The Steering Group is well-established and has worked hard to learn from their experiences. Consequently, the actions of the group now work more in harmony with the site conditions and the community that lives around Dane Valley Woods. This pragmatic, but positive approach makes the group more resilient.</p>	<p>Vandalism and anti-social behaviour remain a significant threat to the woodland. However, the group has become adept at finding methods to counter some of these issues such as making planting less obvious and prone to vandalism and placing interpretive features in places where they can be seen from multiple places.</p>
<p>Regular volunteer litter-picking takes place to help minimise the impact of dropped</p>	<p>Litter and dog faeces are always an issue on urban sites and Dane Valley Woods is no</p>

litter and deter future littering. Consequently, the site usually looks well cared for. This informal volunteer effort is a major strength.	different. Litter is often particularly bad along the surfaced path that runs through the site.
A wide range of wildlife species is beginning to be attracted to Dane Valley Woods. The diversity of vegetation structures and the development of grassland swards are really beginning to yield benefits for wildlife. Group members are also developing the skills needed to identify and record these species.	<i>Hymenoscyphus fraxineus</i> (Ash dieback) has been identified at Dane Valley Woods. Ash have been planted throughout the site in low densities and there is one stand of ash in compartment 1b which is now showing advanced signs of fungal infection
The planted trees are beginning to reach maturity and are a height where they are no longer under threat from bramble encroachment. They will soon be large enough to start shading out the bramble.	Brambles do pose a threat to open areas of the woodland. In particular, grassy areas can become overrun by brambles and care must be taken to ensure this does not happen.



6. Management prescriptions and rationale

This section of the plan will look in more detail at some of the recommendations that will help to achieve the objectives detailed in section 4. The rationale explained here will inform the prescriptions detailed in the work plan, an addendum to this plan. The level of detail will vary depending upon the complexity of the task and the familiarity of the group with the task. For example, less detail is needed for tree planting as the group has extensive experience of this work, whereas more detail will be provided for grassland management as this is a relatively new work area for the group.

6.1. Tree planting and aftercare

The group is well practiced at planting trees. They have done a lot of it. The current rush to plant trees in response to the Climate Crisis means that interest in tree planting externally is very high at the moment. However, ironic as it may seem for a community woodland, tree planting is not currently a priority for Dane Valley Woods. Thousands of trees have been planted, which are still growing and capturing carbon. Most of the areas that remain unplanted are priority areas for grassland creation (glades) or currently have thick bramble on them, making the establishment of new trees very challenging.

There are still opportunities to plant trees but these planting sessions should be relatively small in scale (tens of trees rather than thousands) and focus on infilling areas of existing trees where previous planting has failed. By planting fewer trees, more attention can be given to ensuring the newly planted trees survive by applying a mulch of woodchip and/or cardboard and cutting back vegetation that threatens to engulf newly planted trees.

6.1.1. Coppicing and woodland management

None of the trees on-site require management yet but the long term objectives are to manage the wood and utilise products for green woodworking, hedgelaying and fuel wood where possible. Over the course of the next ten years this situation may change. An assessment of the potential for coppicing, thinning and other woodland management should be made during annual reviews of the management plan. Decisions here may be impacted by opportunities that arise to use the timber produced in the wood, as well as other factors. By not becoming involved in carbon offsetting projects, the group retain the option to pursue woodland management that is best suited to the wildlife in the woods and the needs of local people rather than being tied into agreements that look to maximise the number of mature trees on the site.

6.1.2. Reinstatement of the equinox circle

Within the southern area identified for tree planting in the aerial photography below, a small, dark green circle of trees can be seen. This is what remains of an equinox circle planted in March 2010. At the same time, an avenue of trees was also planted orientated to the direction that the sun rises on the spring equinox. This plan includes creating a route through this area and reinstating the equinox circle should be considered once this happens.



Figure 16: Tree planting opportunity areas at Dane Valley Woods

6.1.3. Establishment of a tree nursery

Many of the trees at Dane Valley Woods are now bearing fruit, nuts and seeds. Rather than buying trees with dubious provenance for future planting, seed can be collected and trees established at a nursery at the headquarters. This can be time consuming but is a great activity for schoolchildren and creates an excellent story to publicise. A great book to help with this has been published by the Tree Council and has all the information needed. It costs only £4. <https://treecouncil.org.uk/product/the-good-seed-guide/>

6.2. Glade creation and maintenance

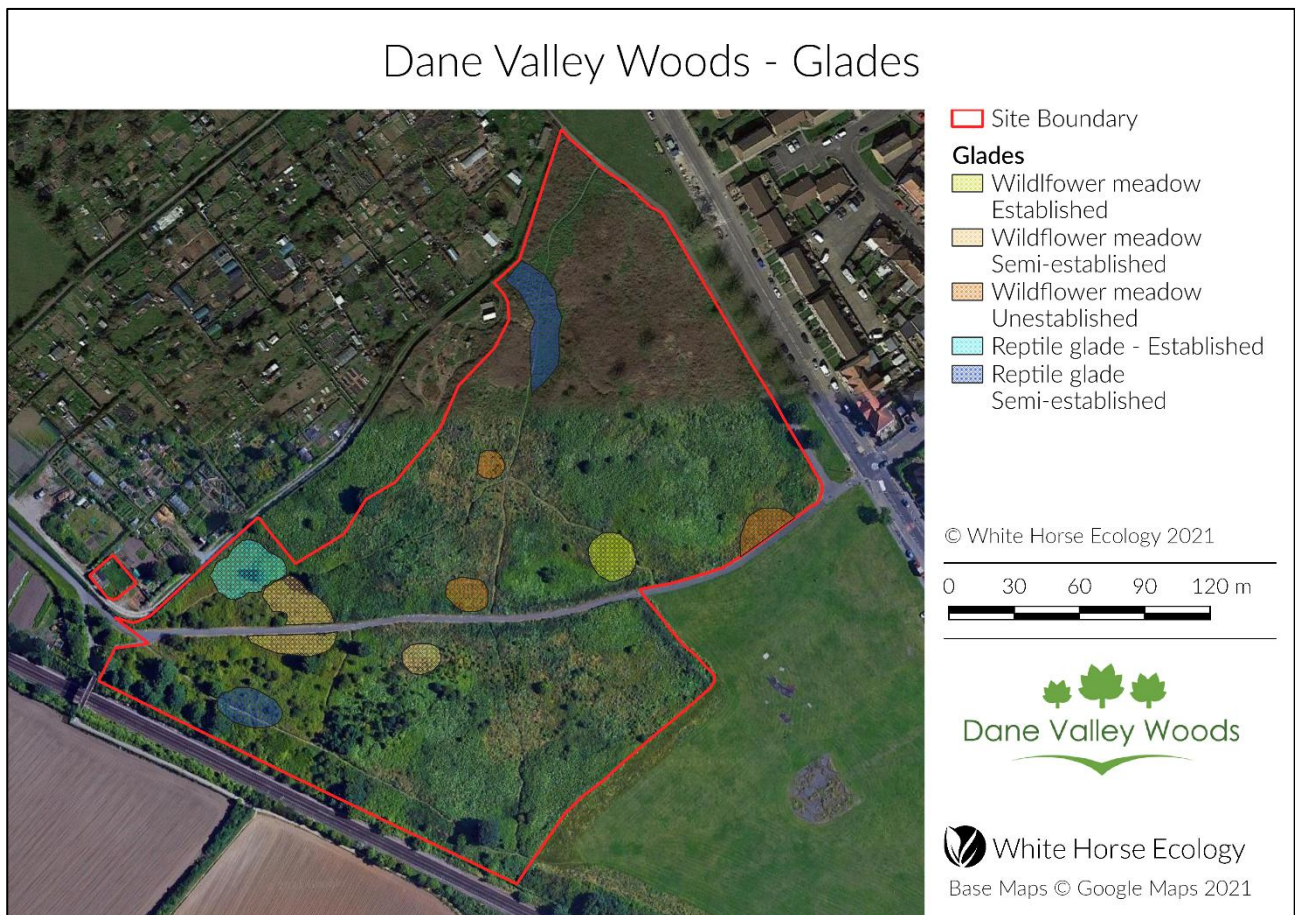


Figure 17: Existing and proposed glades at Dane Valley Woods

One of the most important parts of a woodland for its wildlife are open spaces. This not only increases the amount of woodland edge that wildlife thrives in but also creates a more open feel for people and gives them space to relax in, play in and explore. Glades can also assist in making people feel safer when they walk in the woods rather than being completely surrounded by tall trees. It is recommended that glades are produced and managed in a variety of ways, some promoting botanical diversity and some promoting the kind of vegetation structure that is ideal for reptiles, small mammals, amphibians and many invertebrates. The reasons for creating and managing grassland areas can include:

- Increase numbers of plant species found in the grassy areas of Dane Valley Woods;
- Allow more animals to live and thrive in the grassy areas Dane Valley Woods;
- Make the grassy areas of the wood more attractive;
- Maintain grassy areas that are in keeping with the landscape character of Thanet;
- Limit the introduction of species that are either non-native or common within grasslands of the area;

- Reduce the vigour of some coarse grasses by possibly introducing yellow rattle (or even red bartsia which does better in Thanet soils) and a finer grass seed mix.

The areas identified in the consultation for this plan are shown in the map in figure 17 and can be managed in a variety of different ways including:

- Regular mowing to provide a space for people to use;
- Annual or twice yearly cut to promote botanical diversity;
- Leave grass sward uncut and reduce the levels of nettle, bramble and other vegetation that reduces structural complexity. Any scrub that encroaches should be pulled if possible, rather than cut.
- Leave to re regrow and recoppice the area every seven to ten years.

The establishment and management of botanically rich grassland is notoriously difficult. Several methodologies will be presented here. However, the choice of location is important and those areas that have been prioritised are less prone to scrubbing over and already have an established grass sward.

6.2.1. Establishment of grassland

The map of possible glades suggests that some areas are already established and that some are semi established or yet to be established. How this is done is subject to some debate and the first established wildflower meadow was created by stripping soil and reseeded. This is expensive and requires regular maintenance and mowing whilst the sward is establishing. This has been successful, but other areas where wildflowers have been left to establish naturally, are also well on their way to becoming wildflower meadows and just need to be managed in ways that encourage botanical diversity. An assessment of the values of sowing to help establish meadows is explored in the 'To sow or not to sow' inset panel. Some of the methodologies to establish grassland that could be considered are addressed in the table below. Having a plan for each glade is important.

Possible grassland establishment techniques

Instigate appropriate wildflower meadow management	
What	Simply start managing potential glades in a way that promotes botanical species. Mostly just mowing at strategic times of year.
Why	To promote management that allows wildflowers to establish without being shaded out by scrub or outcompeted by more vigorous, coarse grasses.
When	Depends on regime chosen (see 'possible grassland management techniques' table) but usually at least one cut annually at the end of the flowering season.

How	Mow the meadow at certain times of the year (either once, twice or three times) and collect the arisings to reduce the fertility levels.
Other info	This is the easiest way to establish a wildflower meadow as it just requires mowing and removing arisings.
Establishment of reptile glade	
What	Setting aside an area that isn't cut and simply doing enough to ensure that it doesn't get overrun by brambles, scrub and plants that reduce basking opportunities (e.g. nettles, hogweed etc.).
Why	This will create an area with basking opportunities, a food source and shelter for animals. The idea is to create an area with a complex grass sward but without too much shade. Although areas such as these will contain flowering plants, the aim is to achieve a complex vegetation structure rather than botanical diversity.
When	Can be done at anytime but any severe management work should take place in the winter.
How	<ul style="list-style-type: none"> • Don't cut the grass • Pull or uproot trees that establish in these areas • Cut back bramble so that these areas do not close up due to encroachment
Other info	These areas are easy to create but may need careful management to prevent them scrubbing over.
Addition of yellow rattle ¹	
What	Add yellow rattle (<i>Rhinanthus minor</i>) to an area of grass.
Why	This semi parasitic plant reduces the vigour of coarse grasses providing niches for finer grasses and herbs. It is an annual plant and requires careful preparation before seeding. However, after the first season the action of the plant on coarser grasses should enable the germination of seed.
When	Sow in autumn
How	<p>There are five golden rules for the development of yellow rattle in an area of grassland.</p> <ol style="list-style-type: none"> 1. Obtain locally sourced and fresh seed. Ideally purchase and sow seed in the autumn from seed collected in the same year. 2. Scarify the soil before sowing to create bare patches of earth for the seed to establish itself. Remove any thatch that has collected in the grass. The use of herbicide is not recommended. 3. Sow by November at the latest.

¹ Yellow Rattle, Plantlife - <https://www.plantlife.org.uk/uk/discover-wild-plants-nature/how-to-grow-yellow-rattle-rhinanthus-minor>

	<ol style="list-style-type: none"> Cut the grass hard in the autumn and remove clippings. Keep grass length below 15cm for the rest of the year.
Other info	<ul style="list-style-type: none"> This technique can be used on its own or in combination with a seed mix. There is a possibility that yellow rattle won't establish well in particularly fertile soils. The use of yellow rattle was not particularly successful when used before, though that could have been because the Covid-19 pandemic prevented mowing during some crucial periods. Red bartsia does grow well at Dane Valley Woods and is also semi-parasitic. There is potential for it to be used as an alternative but more research is needed.
Use of grass and flower seed mix	
What	Add a seed mix to an area of grass
Why	Improve the diversity of species within a grassy area. Will increase the number of flowering plants that will support pollinator insects
When	Sow in autumn
How	Follow the same steps as for yellow rattle but mow regularly until the end of April and cease mowing between May and August.
Which seed to use	<ul style="list-style-type: none"> Only ever use native species Use species mixes that are similar to the vernacular flora For Thanet this can be challenging, especially as the soil at Dane Valley Woods is so disturbed and sometimes even imported. Although a Weald mix, the selection in this Weald seed mix from British Wildflower Meadow Seeds is pretty good: https://britishwildflowermeadowseeds.co.uk/products/weald-meadow-seed-mix <p>This mix has a good variety of plants that have been recorded at Dane Valley Woods as well as a few welcome additions. However, this is quite expensive, and it may be preferable to go for an Emorsgate clay mix: https://wildseed.co.uk/mixtures/view/26 </p> <ul style="list-style-type: none"> This can be used in conjunction with yellow rattle in an attempt to reduce the vigour of coarse grasses
Reseeding	
What	Strip the soil from an area and reseed from scratch
Why	This method has the benefit of removing both the coarse grasses and stripping some of the fertile soil from an area before seeding. This gives finer grasses and herbs a better chance to establish and

	could result in the best meadows at Dane Valley Woods. Be aware that the establishment of meadows is far from straightforward. Allowing the wrong species to flourish by cutting at the wrong time or by neglect is easily done. Research methods carefully and get advice if unsure.
When	Sow in autumn but aftercare needed for several years afterwards
How	<ol style="list-style-type: none"> 1. Strip existing grass and layer of topsoil from site. Remove and use to create a reptile hibernaculum elsewhere in the woods. 2. Obtain locally sourced and fresh seed. Ideally purchase and sow seed in the autumn from seed that has been collected in the same year. 3. Ensure that when the seed is sown the area is weed free 4. Sow by November at the latest. 5. Cut the grass hard in the autumn and remove clippings. 6. Keep grass length below 15cm for the rest of the year. 7. Mow grass regularly in the spring to assist with the creation of a grass thatch and to help prevent pernicious weeds developing. 8. Cease mowing in April and recommence after seed set in August. Continue regular mowing until end of year. 9. Relax this mowing regime to a twice yearly cut after two years.
Which seed to use	<ul style="list-style-type: none"> • Only ever use native species • Use species mixes that are similar to the vernacular flora • Choose a suitable seed mix such as: https://britishwildflowermeadowseeds.co.uk/products/weald-meadow-seed-mix This mix has a good mix of plants that have been recorded in Dane Valley Woods as well as a few welcome additions. • Use in conjunction with yellow rattle in an attempt to reduce the vigour of coarse grasses
Use of wildflower plugs and bulbs	
What	Adding plugs or bulbs to soils to increase the number of plants
Why	This is not recommended as bulbs such as daffodils and tulips are non-native and are not in keeping with the character of Dane Valley Woods. When used in the past, plug plants have had limited success
When	Not recommended
Pollinator strips	
What	Cultivating areas with species that can be attractive to bees and other pollinators.

Why	This can provide a splash of colour during the summer as well as provide a nectar source for pollinator species. However, this is not seen as appropriate for rural sites where the aim is to make the most of and encourage vernacular species that also provide a nectar source for pollinators.
When	Not recommended but could possibly be used on the margins of the site where it abuts the amenity grassland to the east of Dane Valley Woods. This could be a partnership project with TDC.

6.2.2. Management of grassland

It is difficult to give specific prescriptions for wildflower meadow glades in particular as management should adapt to how the areas respond, making regular reviews of management essential. In a worst case scenario, regular mowing may be required in order to knock back encroachment of brambles and ruderal plants (such as nettles) before meadow or reptile management can be resumed. However, there are some generally accepted good practice management regimes for the group to choose from and these are listed in the table below.

The importance of cut and collect for wildflower meadows

One of the aims of grassland management is to reduce the levels of fertility in the soil. A way to achieve this is to collect cuttings and remove them. They can be piled in a heap where they may be used as a reptile hibernaculum or egg laying site. This should be done whenever possible by raking any clippings after mowing. The effectiveness of these management regimes will be greatly increased if this technique can be employed. It is a good volunteer task too for relatively small glades.

Possible grassland management techniques

Amenity	
What	Regular mowing of grass to maintain a short, continuous sward length.
Why	To create safe places for people to walk and relax. A more formal area. Not recommended for Dane Valley Woods as there is so much amenity grassland nearby.
When	When required – up to 20 times a year during the growing season depending upon weather conditions.
Other info	Provides the lowest biodiversity value of any grassland, both in terms of plant species diversity and the number of animals that are likely to make their home in the grass. In areas that are less formal, leaving the mowing blades a little higher will make a difference, both

	retaining more moisture in the soil as well as storing more carbon in the soil.
Three cuts a year	
What	Cut the grass only three times a year, preferably in winter, April and August. Ideally cut to between 10 and 15 cm to avoid injury to reptiles or small mammals. More than three cuts can be made if access is needed. Where possible, collect cuttings and create grass heaps.
Why	Simply by reducing the number of cuts that a site receives will allow a wider variety of herbs to develop, flower and set seed, increasing the plant diversity in the grass. This method can reduce the intensity of coarse grasses that out-compete other grasses and plants
When	Winter (after seed has set and reptiles have hibernated) as well as in April and August. Additional cuts can be made, if necessary, in late summer/autumn as this discourages coarse grasses from establishing. Varying the months of the summer cuts can encourage different flowers to set seed and increase plant diversity.
Other info	<p>This can be used in areas where:</p> <ul style="list-style-type: none"> • Minimal access is required • Grass and flower seed are establishing and require regular mowing • Where coarse grasses dominate and herb diversity is poor
Two cuts a year	
What	Cut the grass only twice a year, preferably in winter and one month during the summer. Ideally cut to between 10 and 15 cm to avoid injury to reptiles or small mammals. Where possible, collect cuttings and create grass heaps.
Why	Simply by reducing the number of cuts that a site receives will allow a wider variety of herbs to develop, flower and set seed, increasing the plant diversity in the grass. This method can reduce the intensity of coarse grasses that out-compete other grasses and plants
When	Winter (after seed has set and reptiles have hibernated) as well as in any month between March and June. Additional cuts can be made if necessary. Varying the months of the summer cut can encourage different flowers to set seed and increase plant diversity.
Other info	<p>This can be used in areas where:</p> <ul style="list-style-type: none"> • Grass and flower seed are establishing and require regular mowing • Where coarse grasses dominate and herb diversity is poor, this may provide better results than an annual cut

To sow or not to sow

Grassland is notoriously difficult to manage, create and maintain. There are so many factors to consider such as soil type, the species of grass present, how management can take place and how often it takes place. There can be a temptation to help nature along by adding a seed mix or plug plants to sites to enhance the plant diversity. Is this a good idea? As you might expect, this question is not necessarily that easy to answer and the response that is received may depend as much upon who you ask as what is the most effective technique.



The most valuable semi-natural, unimproved (never ploughed or had fertilisers added) meadows in the countryside have built up a range of plant species, sometimes over hundreds of years. These meadows are filled with beautiful flowers that are suited to the local soils and form part of the local and regional flora. Whilst this gold standard is what we all want to achieve, Dane Valley Woods has been disturbed many times and was even used as a landfill site, making soils variable and denuded of their natural seed bank. Floristic diversity has been compromised but is improving due to recent management. Under these circumstances, it is tempting to consider sowing wildflower seed to increase the number of wildflowers. However, the following may need to be considered before sowing takes place:

- If seed is sown, try to ensure that the species are appropriate for the soil and are found locally;
- Try to use native species wherever possible;
- What affect is sowing seed going to have on the existing grassland;
- Using a bright and colourful arable seed mix or pollinator mix can have a big impact. It works in a semi-formal area such as a roadside but the species in these mixes are not normally vernacular and sometimes not even native. They may not be appropriate for Dane Valley Woods where a more naturalistic look may be desired. Choose location carefully;
- Are the existing grasses coarse and competitive, making it difficult for seed to germinate? Will seed just disappear and never establish itself;
- Grassland structure can be just as important as the species diversity in providing habitats for animals, whether they are mammals, butterflies, other invertebrates or reptiles. It may not be necessary to sow seed or increase botanical diversity;
- Sowing yellow rattle (and possibly red bartsia) can be a useful way to reduce the vigour of competitive grasses.

Annual cut	
What	Cut grass once a year
Why	Creates a dense grass cover, providing sheltering opportunities for wildlife and allowing flowering plants to establish early in the summer.
When	Any time from September onwards after seed has been broadcast. To enhance habitat for reptiles and small mammals leave the cut until November or December
Other info	Care must be taken not to unwittingly kill or injure protected species or other wildlife that may be sheltering or foraging in the long grass. To do this, cut long grass in two stages down to around 15cm first and then to the ground
Reptile glade management	
What	<p>Maintain open areas without mowing. Essentially just managing scrub and bramble encroachment.</p> <ul style="list-style-type: none"> • Pull or uproot trees that establish in these areas • Allow some bramble to be present (probably at the edges of the glades) but brushcut to prevent encroachment • When cutting brambles create a scalloped edge to maximise the area of grassland/scrub interface. • Remove large patches of nettle and other large plants if they start to dominate. Mow these regularly if necessary
Why	Provides a physical structure within grassland that is good for a range of species. It also encourages overwintering grass habitat that is good for invertebrates, small mammals, reptiles and amphibians. .
When	Practical work should take place during the winter
Other info	<ul style="list-style-type: none"> • Dead hedges can be produced with brash if any felling work takes place in the woodland. They are easy to construct and can also be used to help keep people from certain sensitive areas (though by no means a barrier). They are a possible fire risk. • Reptile hibernacula are easy to create and have no cost. They are holes in the ground filled with rubble and wood and then covered with soil that create places for overwintering animals including reptiles, small mammals and invertebrates.

6.3. Bramble and invasive species control

Bramble is a problem plant at Dane Valley Woods as it makes tree planting difficult and can encroach into grassland areas. It does have benefits for wildlife too as birds nest in bramble, it provides a welcome autumnal food source and gives cover for mammals and reptiles. The extent of brambles has increased over the years, which was a major source of concern expressed in the previous management plan. However, where trees have been planted, the saplings have now grown to such an extent that they are unlikely to be overwhelmed by brambles. In fact, as the canopy begins to close in these areas, bramble will retreat as it becomes out shaded by the trees. The current extent of bramble is shown in figure 14.

Removing bramble is an intensive business, and on much of the site is of questionable value. Where work such as this should be prioritised is if:

- Bramble is threatening to out shade newly planted trees
- Bramble is encroaching on either wildflower meadows or reptile glades

The removal of bramble is difficult and strimming/brushcutting is only a temporary measure, though this may be enough to protect newly planted trees. If bramble starts to encroach a glade and cutting back bramble is not proving effective then cutting and regular mowing over a season may be necessary to weaken the roots.

6.3.1. Invasive species control

Although invasive species do not pose a major problem at the current time, vigilance and eradication of non-native species now can prevent time consuming and/or expensive work in the future. The following species are viewed as the most important at this point in time:

- **Sycamore.** Although uncommon at the present time it is worth felling small sycamore trees and hand pulling saplings when they are seen. The established sycamores are still the largest trees on site and have value simply for this reason. Stopping the spread near these large trees is important if they are to be prevented from becoming invasive.
- **Cherry laurel.** This garden escapee often finds its way into woodlands and can become a major problem. Cutting plants where it is seen is appropriate at this stage so that the spread by sexual reproduction can be limited. The use of herbicides should only be considered if the plant spreads rapidly and threatens to dominate in areas.
- **Winter flowering heliotrope** (*Petasites fragrans*). This plant can be mown to prevent flowering and this will also weaken the remaining roots.

6.4. Path maintenance

There is a good network of paths throughout the woodland. However, some paths have become overgrown in recent years due to the suspension of volunteer activities during the

Covid-19 lockdown and some areas of the wood (most notably compartment 1c) are not accessible at all. Currently paths are mown regularly using a lawnmower and this should continue. The most heavily used paths do not require any maintenance at all.

Surfacing

Currently, none of the paths are surfaced though wood chippings are usually available from Thanet District Council. These can be used to surface paths to act as a mulch that prevents weeds regrowing. They can also stop paths getting muddy. It can also be time consuming and can create a formal look that may not be desired as well as reduce species diversity on the edges of the path. It is recommended that using wood chippings is trialled in a small area, particularly areas that get muddy. A thick (5-10cm) layer should be applied.

In some areas, consideration will be given to establishing paths that are compatible with wheelchairs and pushchairs, subject to the availability of resources and the outcome of consultation with local access groups.

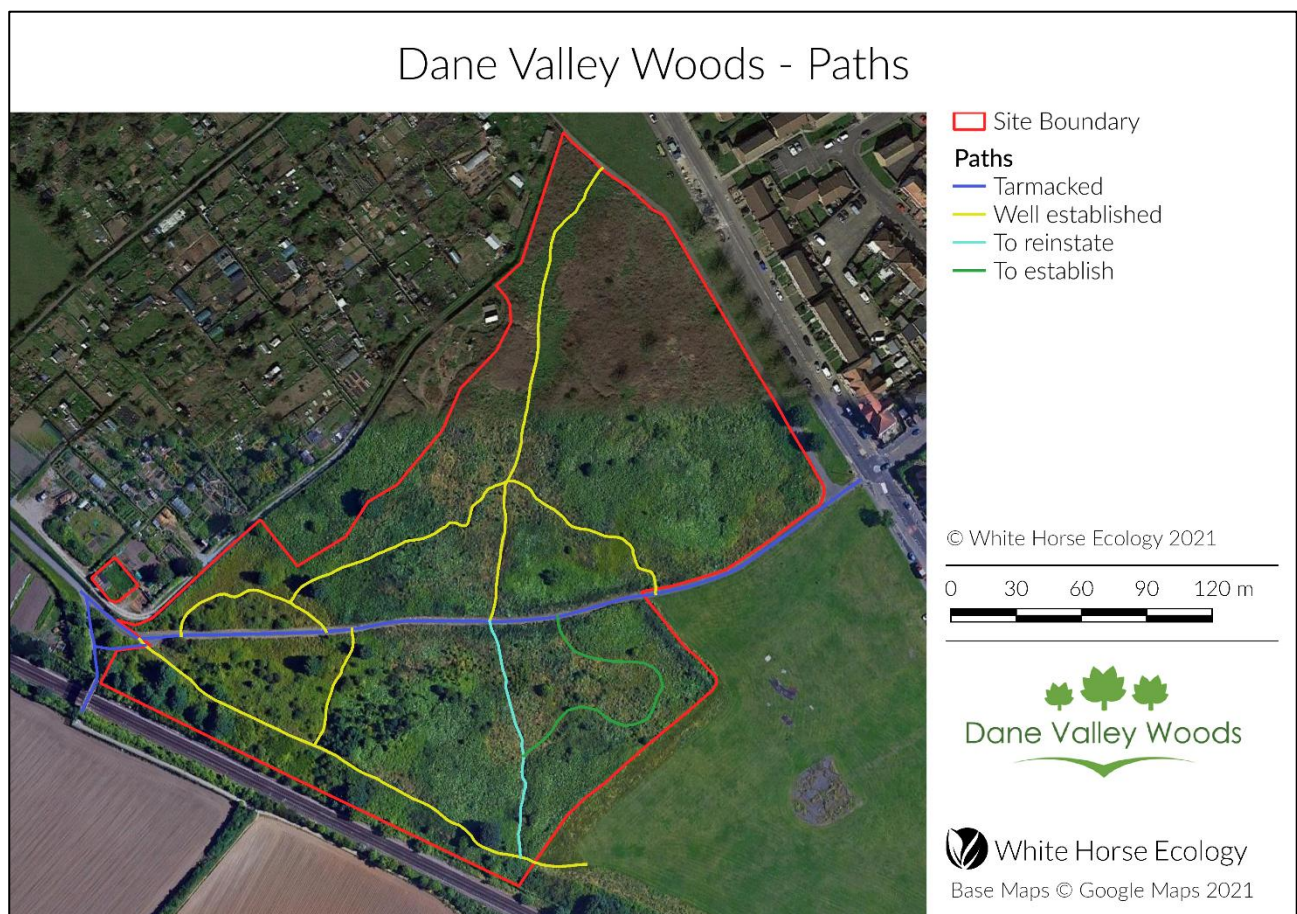


Figure 18: Existing and proposed paths in Dane Valley Woods

6.4.1. Ride management

Wildlife benefits when the interface between different habitat types (grassland and woodland in our example) is 'soft' and gradual. To help achieve this zonal ride management can be adopted to grade the change from grass to woodland and this is shown in the figure below². It would be excellent to adopt this practice on perhaps some of the best used lengths of path.

This will require either, additional volunteer input, the purchase of a ride on mower with flail attachment or the hiring of suitable machinery/contractor annually.

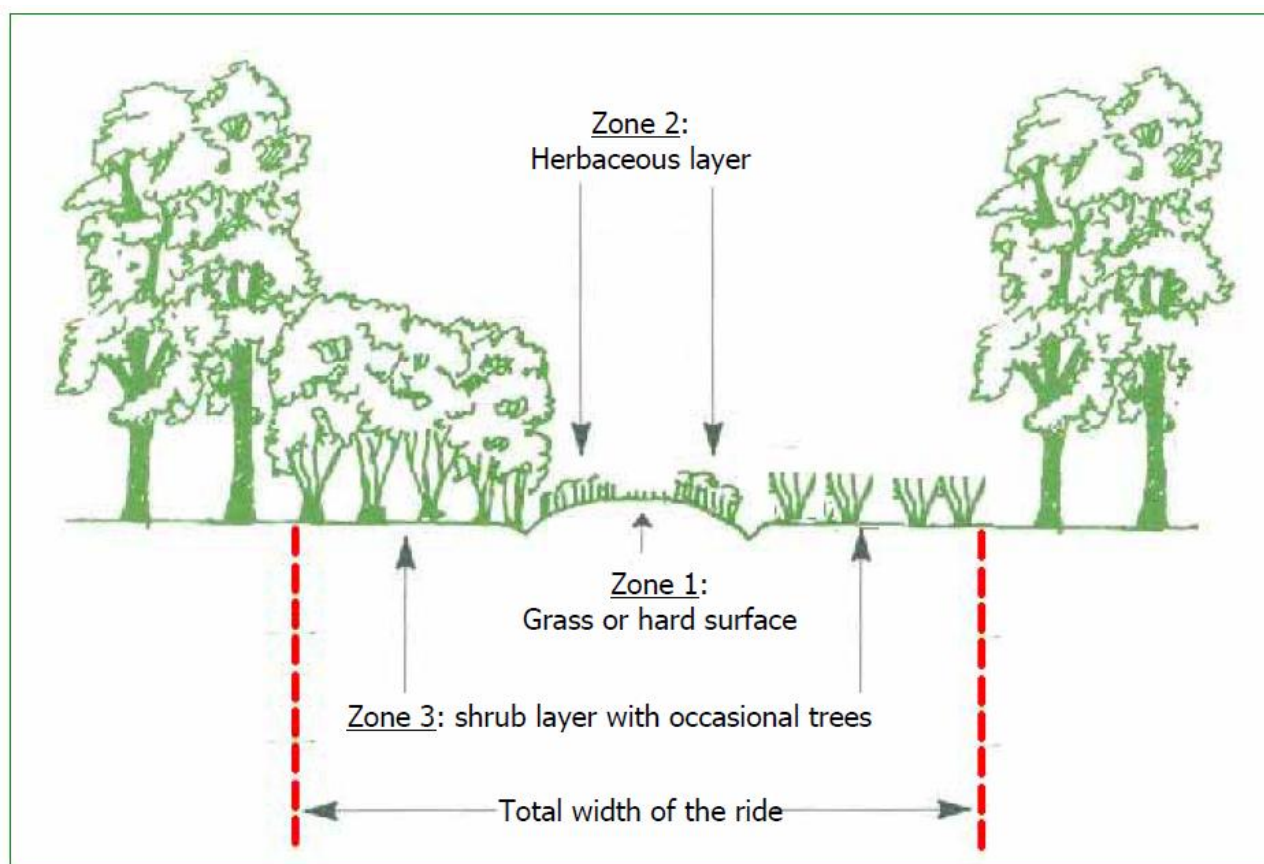


Figure 19: Three zone ride management. Source (Forestry Commission)

As the diagram shows, Zone 1 would be well managed grass paths that maintain easy public access, zone 2 would be cut once a year in autumn and the trees in zone 3 would be cut every five years and allowed to regrow. Not only would this benefit wildlife but open paths can help stop the woodland from feeling so intimidating to walk in and more open. It may also help stop the paths from becoming too muddy in the winter.

² Managing Woodland Open Space for Wildlife. -

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/707669/ewgs-on011-ride-mangt.pdf

6.5. Creating habitats for wildlife

The Dane Valley Woods group has already created two bug hotels that are located at the headquarters. A pond has also been dug in the headquarters. However, there is more that can be done.

Hibernacula can be created in the woods near the reptile glades in areas of partial sunshine. These are places where reptiles and other animals can overwinter in a safe place with a stable temperature. They are essentially holes in the ground that are filled with wood and/or rubble and covered again with soil and removed turves. They can be created by volunteers at any time of the year and an example of how to create a hibernacula can be found on Kevin Morgan's blog³ and is shown in the figure below.

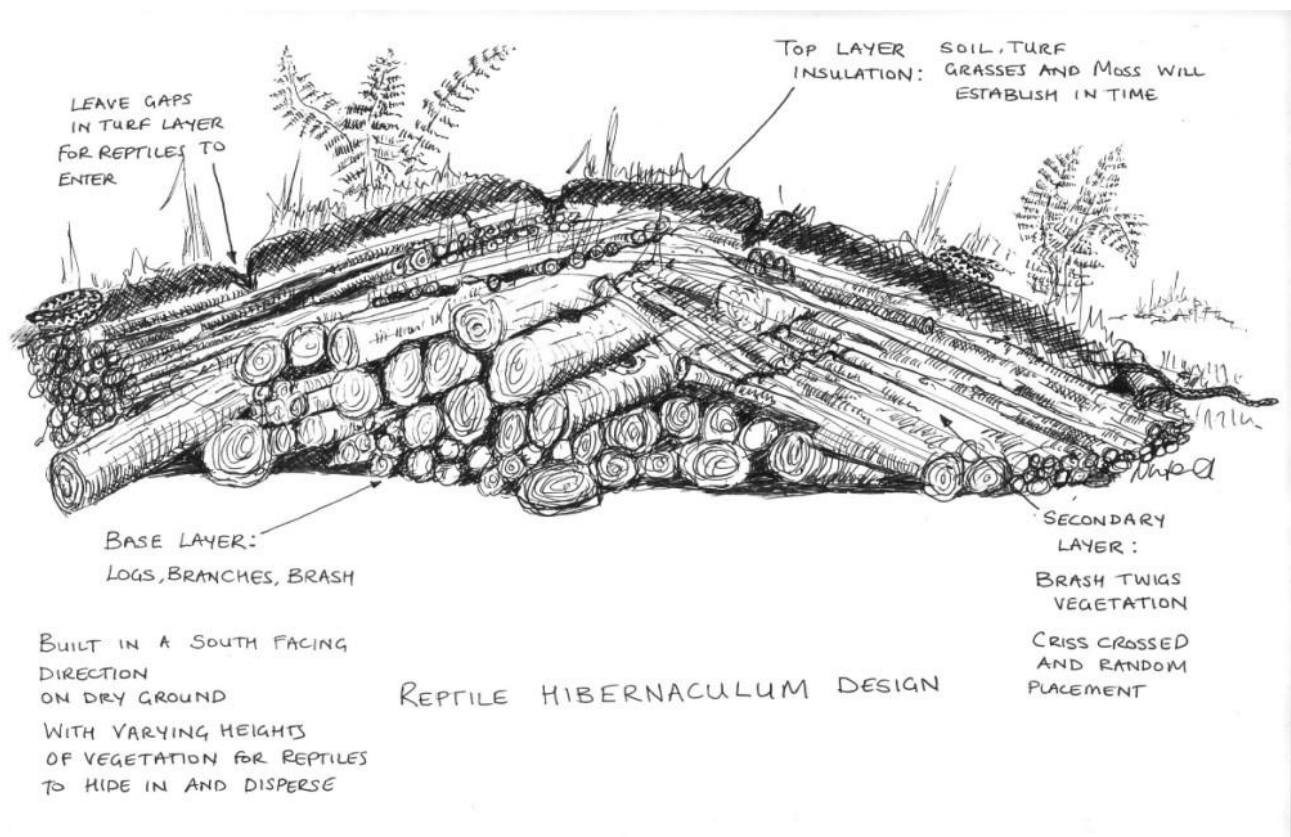


Figure 20: Hibernaculum design © Nigel Hand, Central Ecology

Bat and bird boxes

Both bat and bird boxes may be of value at Dane Valley Woods, particularly when trees become tall enough to keep these features away from possible vandals.

³ Creating reptile/amphibian hibernacula and refuges - <http://www.naturalexplorer.co.uk/articles/creating-reptileamphibian-hibernacula-and-refuges/>

Wood piles and dead hedges

Wood piles and dead hedges can be excellent for wildlife. They can also be a good way of using material that is cut during routine management. They also create a fire risk so their use should be carefully considered and, when used, they should be placed away from footpaths.

6.6. Task days, tool use and training

Task days are the mechanism available for Dane Valley Woods to achieve most of their practical work and the vast majority of the routine maintenance of the wood. They are also an excellent way to involve the local community and gain support for the work of the group. Task days (now called Sunday Wood Work) are generally well attended and the group have the use of a brushcutter. Keeping these events going should be a priority and will be essential if this plan is going to be implemented in full.

6.6.1. Tool use

Of fundamental importance to getting work done on tasks is having the right tools to carry out the jobs. The group already has a selection of hand tools and a brushcutter. However the following may be of use to implement this plan. It is beyond the scope of this plan to give additional detail regarding designs and manufacturers but information is available to help make these decisions that is either accessible via the internet or by contacting similar groups.

Hand tools

The group already has a selection of hand tools including spades, grass hooks, loppers, bow saws, buckets etc. Several other tools that might be of use include:

- Shovels
- A tree popper and/or mattocks, to help create and maintain reptile glades

Most of the jobs listed in this management plan don't require additional hand tools. Resources should be focused on maintaining and adding to the existing tool selection.

Power tools

- The **brushcutter** should be maintained and replaced if necessary. A second machine should be considered if the management of glades and paths demands this and there are enough volunteers to use the tools.
- A **hedgecutter** could be used to control brambles near paths and glades. It may be worth considering the purchase of a **multi-function tool** that allows for multiple heads to be attached such as hedgecutter, brushcutter, pole saw etc.
- A **chainsaw** may be required towards the end of this management plan cycle. Training in the use of chainsaws is compulsory and expensive so choosing who to train can be a big decision. The individual needs to show a commitment to the group that makes the training worthwhile.
- A **reciprocating mower** can be purchased to help with wildflower meadow mowing. It can do a neater job than a trimmer and makes collection of arisings easier. Should only be considered if trimming capacity is limited.

- A ride on **mower with flail attachment** can be invaluable for path maintenance and for initiating and maintaining a zonal ride system. However, this may be both beyond the budget of the group and storage and maintenance could be problematic. Hiring a machine such as this (probably with an operator) may be a more realistic alternative.
- **HVO diesel** or other biodiesel alternatives should be trialled to power tools if it is readily available.

6.6.2. Training

The level of skills within the Dane Valley Woods Steering Group is improving as they gain experience. However, training will be useful as the woodland matures and different management is required. Training can be split into two categories.

1. **Tools** – Being able to use power tools can make a huge difference to the amount of work that the group does. Having more people trained in using the brushcutter/trimmer will allow work to be done more regularly and will reduce dependence on a single individual. Chainsaw training is likely to be something that is required before the end of this 10 year management plan cycle.
2. **Knowledge** – Steering Group members should be encouraged to attend training (whether formal or informal) in wildlife identification, habitat management and group management (leadership, first aid etc.).

6.7. On and off site interpretation

Dane Valley Woods has become increasingly adept at promoting their work and achieving good reach for such a small group. Excellent use of Facebook and Instagram has allowed the group to maintain a presence large enough to attract attendees at both events and work days. An example of a recent Facebook post is shown in figure 21. This works well and should continue to be the main way of spreading the word. The group also has a website which can act as a repository for a large amount of information about the site and as a secondary method for promoting events. On site interpretation includes an information panel and a noticeboard, plus benches and wooden sculptures. All of these things help to both inform people about the work of the group as well as give the site a cared for look.

It is recommended that a review of interpretation is carried out and a strategy is developed. This does not need to be a large piece of work, it simply needs to look at what needs to be done, how much it might cost and how it is achieved. Expectations of how much communication the group will achieve need to be realistic and media also needs to be quick to maintain so that continually updating different media streams doesn't become overly burdensome. An example of this is the blog section on the website which rarely gets updated. As well as a website refresh, other interpretive techniques such as phone based apps or QR codes that give information about Dane Valley Woods at various different locations.

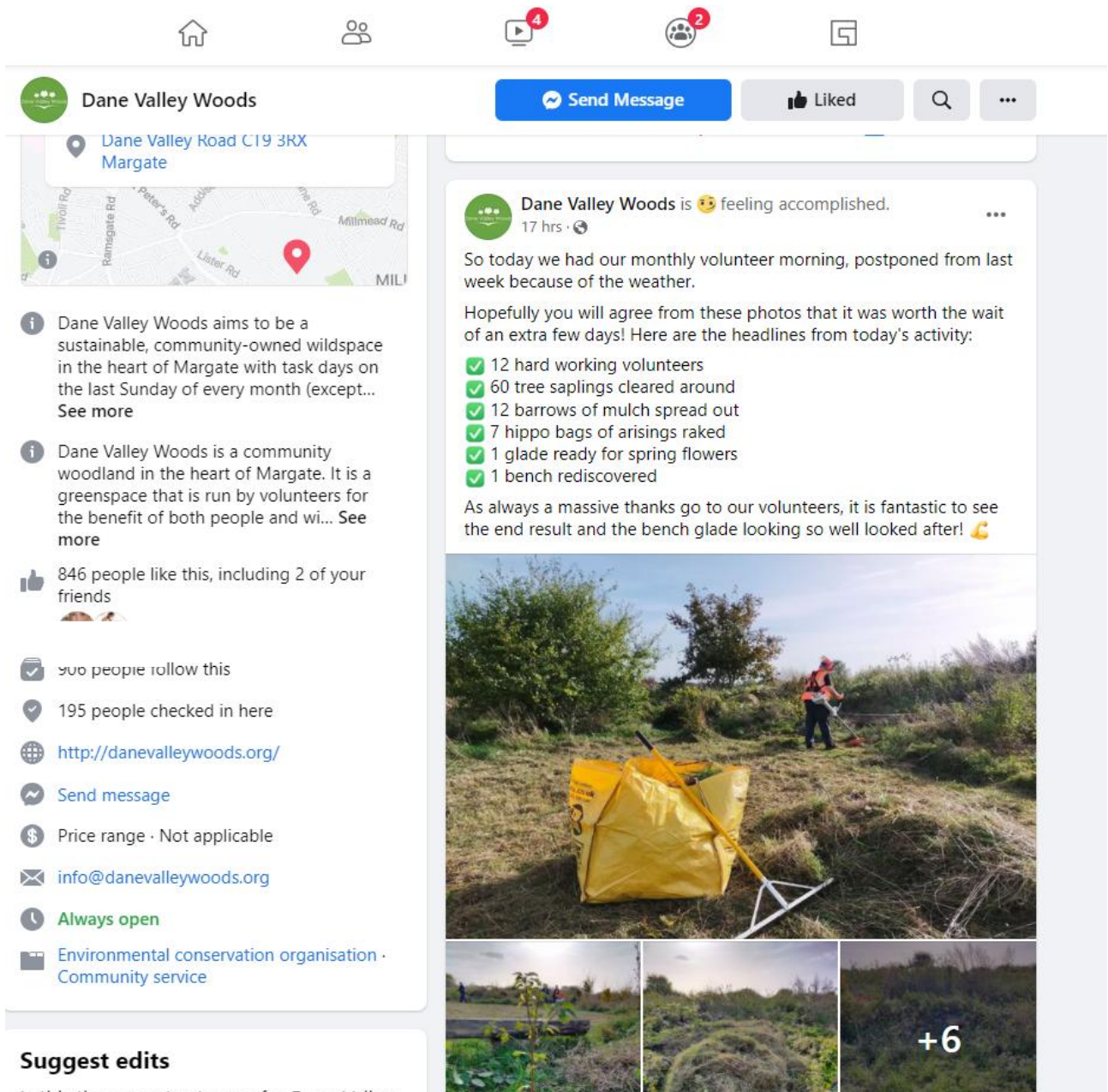


Figure 21: Recent Facebook post

6.8. Education and events

The group has both attended events to promote their work and run events onsite that have included tree identification, guided walks, open days and events for children. These are all excellent ways of promoting the site, the activities of the group and increasing understanding in the local community. Event attendance and organisation can be very time consuming and, unless there is capacity within the group and somebody (or people) who want to lead on developing this element of the Dane Valley Woods offer, it should not be prioritised. Running regular task days and promoting the group using existing media should remain the priority.

Offering education opportunities to local schools is also an area that can be both beneficial to local children and can help raise the profile of the group. Equally, this work is time consuming, schools can be difficult to engage and a certain skill set is needed to carry out this work. The group may not always have those resources available.

Working with the neighbouring forest school could present an opportunity to address this issue. Another alternative that has been tried elsewhere involves creating an informal relationship with a specialist environmental education expert. This relationship would result in any requests to provide educational activities in the wood being referred to the specialist provider. The provider would then negotiate fees and arrangements with the school or group. This has the advantage of the group being able to offer professional educational opportunities on its website or through Facebook without needing to run the events themselves. The provider gets additional publicity and first refusal for all educational activity requests. Swale Borough Council have an arrangement like this with a company called Anna Outdoors.

6.9. Site designation

Although the site is designated as Local Green Space, it is recommended that the group should explore an additional designation.

Local Wildlife Site designation is awarded by Kent Wildlife Trust and Dane Valley Woods supports enough wildlife to be considered. It is recommended that the officer responsible is contacted to discuss whether Dane Valley Woods can be considered for designation. As of 2021, Lawrence Ball is the officer responsible and can be contacted at lawrence.ball@kentwildlife.org.uk

PLEASE NOTE: This document has an associated work plan that complements this report. It is a shorter document that lists the actions and prescriptions generated by this report.

Dane Valley Woods - Management



- Site Boundary
- Brambles
- Tree planting opportunities

Glades

- Wildflower meadow Established
- Wildflower meadow Semi-established
- Wildflower meadow Unestablished
- Reptile glade - Established
- Reptile S

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0 30 60 90 120 m



Dane Valley Woods

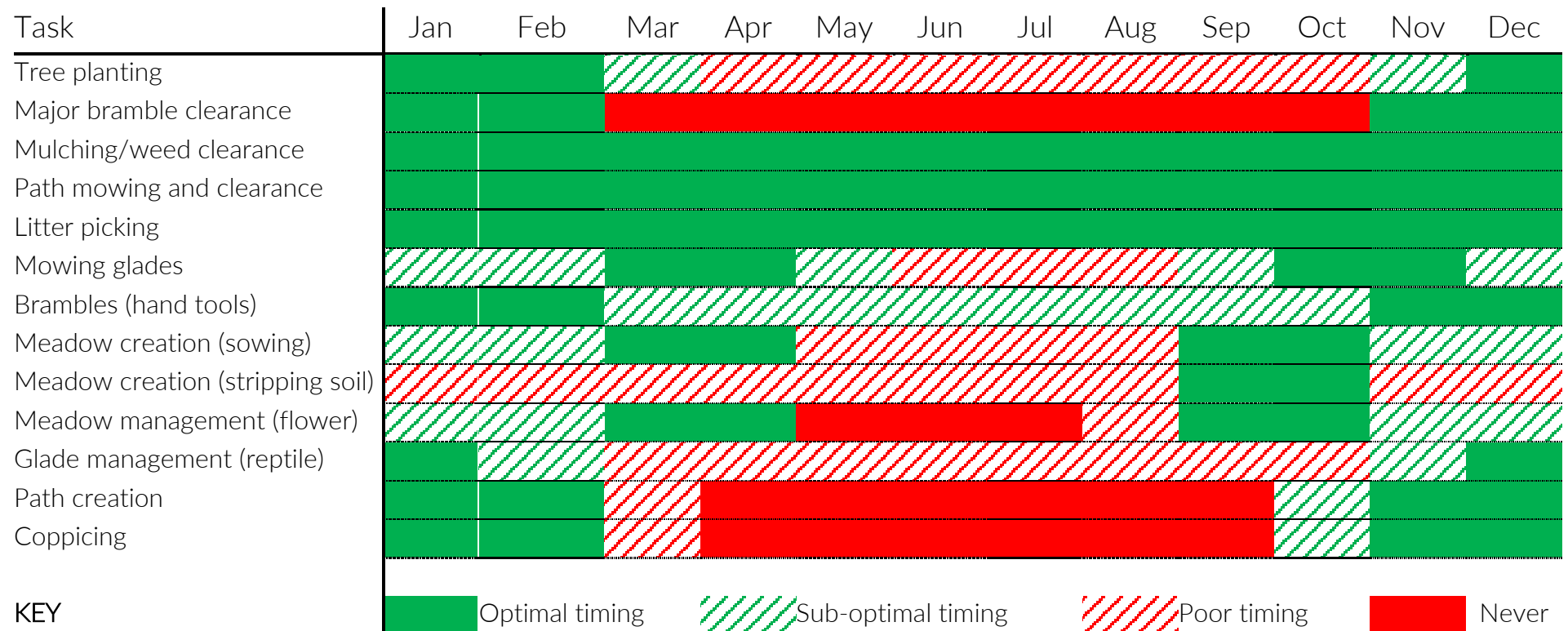


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Base Maps © Google Maps 2021

Figure 22: Management prescriptions for Dane Valley Woods

7. Appendix I: Timing of conservation tasks



8. Appendix II: Species list

The following is a list of all of the species that have been recorded at Dane Valley Woods. The source of these records varies from casual records reported to the group by visitors, a BioBlitz event that was held at the woods and records collected by Steering Group members. A botanical walkover survey was also conducted as part of the development of this management plan.

Species	Scientific name
<i>Trees and shrubs</i>	
<i>Acer campestre</i>	Field maple
<i>Acer pseudoplatanus</i>	Sycamore
<i>Aesculus hippocastanum</i>	Horse chestnut
<i>Alnus glutinosa</i>	Alder
<i>Betula pendula</i>	Silver birch
<i>Betula pubescens</i>	Birch
<i>Buxus sempervirens</i>	Box tree
<i>Carpinus betulus</i>	Hornbeam
<i>Castanea sativa</i>	Sweet chestnut
<i>Cornus sanguinea</i>	Dogwood
<i>Corylus avellana</i>	Hazel
<i>Crataegus monogyna</i>	Hawthorn
<i>Euonymus europaea</i>	Spindle
<i>Fagus sylvatica</i>	Beech
<i>Fraxinus excelsior</i>	Ash
<i>Ilex aquifolium</i>	Holly
<i>Juglans regia</i>	Walnut
<i>Ligustrum vulgare</i>	Wild privet
<i>Malus domestica</i>	Apple tree
<i>Malus sylvestris</i>	Crab apple
<i>Populus alba</i>	White poplar
<i>Prunus avium</i>	Wild cherry
<i>Prunus spinosa</i>	Blackthorn
<i>Quercus cerris</i>	Turkey oak
<i>Quercus robur</i>	Oak
<i>Rosa canina</i>	Dog rose
<i>Salix caprea</i>	Goat willow
<i>Sambucus nigra</i>	Elder
<i>Sorbus aria</i>	Whitebeam

<i>Sorbus aucuparia</i>	Rowan
<i>Sorbus torminalis</i>	Wild service tree
<i>Taxus baccata</i>	Yew
<i>Viburnum lantana</i>	Wayfaring tree
<i>Viburnum opulus</i>	Guelder rose

Plants

<i>Achillea millefolium</i>	Yarrow
<i>Agrostemma githago</i>	Corncockle
<i>Anacamptis pyramidalis</i>	Pyramidal orchid
<i>Anthriscus sylvestris</i>	Cow parsley
<i>Artemisia vulgaris</i>	Mugwort
<i>Ballota nigra</i>	Black horehound
<i>Beta vulgaris</i>	Sea beet
<i>Brassica nigra</i>	Black mustard
<i>Caltha sp.</i>	Marigold
<i>Calystegia sepium</i>	Hedge bindweed
<i>Centaurea nigra</i>	Common knapweed
<i>Cirsium arvense</i>	Creeping thistle
<i>Cirsium palustre</i>	Marsh thistle
<i>Cirsium vulgare</i>	Spear thistle
<i>Clematis vitalba</i>	Old man's beard
<i>Conopodium majus</i>	Pignut
<i>Convolvulus arvensis</i>	Field bindweed
<i>Cymbalaria muralis</i>	Ivy-leaved toadflax
<i>Cyperaceae sp.</i>	Sedge
<i>Dactylis glomerata</i>	Cock's foot grass
<i>Daucus carota</i>	Wild carrot
<i>Dipsacus fullonum</i>	Wild teasel
<i>Fabaceae sp.</i>	Lucerne
<i>Festuca rubra</i>	Red fescue
<i>Ficaria verna</i>	Lesser celandine
<i>Foeniculum vulgare</i>	Fennel
<i>Galium aparine</i>	Cleaver
<i>Galium mollugo</i>	Hedge bedstraw
<i>Hedera helix</i>	Ivy
<i>Helminthotheca echioides</i>	Bristly ox-tongue
<i>Heracleum sphondylium</i>	Hogweed
<i>Hieracium sp.</i>	Hawkweed

<i>Hyacinthoides hispanica</i>	Spanish bluebell
<i>Hypericum perforatum</i>	Perforate St John's-wort
<i>Jacobaea vulgaris</i>	Common ragwort
<i>Lamium purpureum</i>	Red dead-nettle
<i>Lapsana communis</i>	Nipplewort
<i>Lathyrus grandifloras</i>	Everlasting pea
<i>Lathyrus pratensis</i>	Meadow vetchling
<i>Lavatera arborea</i>	Tree mallow
<i>Leontodon hispidus</i>	Rough hawkbit
<i>Leucanthemum vulgare</i>	Ox-eye daisy
<i>Lolium perenne</i>	Rye grass
<i>Lotus corniculatus</i>	Bird's foot trefoil
<i>Malva sylvestris</i>	Common mallow
<i>Matricaria discoidea</i>	Pineapple weed
<i>Medicago lupulina</i>	Black medic
<i>Mentha aquatica</i>	Water mint
<i>Odontites verna</i>	Red bartsia
<i>Orobanche minor</i>	Common broomrape
<i>Pentaglottis sempervirens</i>	Evergreen bugloss
<i>Pentaglottis sempervirens</i>	Green alkanet
<i>Petasites fragrans</i>	Winter heliotrope
<i>Phleum pratense</i>	Timothy-grass
<i>Picris hieracioides</i>	Hawkweed oxtongue
<i>Plantago lanceolata</i>	Ribwort plantain
<i>Polygonum aviculare</i>	Knotgrass
<i>Potentilla reptans</i>	Creeping cinquefoil
<i>Primula veris</i>	Cowslip
<i>Ranunculaceae</i>	Clematis
<i>Ranunculus acris</i>	Meadow buttercup
<i>Rubus fruticosus</i>	Bramble
<i>Rumex sp.</i>	Dock sp.
<i>Senecio vulgaris</i>	Groundsel
<i>Silene dioica</i>	Red campion
<i>Sisymbrium officinale</i>	Hedge mustard
<i>Smyrniolus olusatrum</i>	Alexanders
<i>Solidago virgaurea</i>	Golden rod
<i>Syringa vulgaris</i>	Lilac
<i>Taraxacum officinale</i>	Dandelion
<i>Tragopogon porrifolius</i>	Salsify
<i>Trifolium pratense</i>	Red clover

<i>Trisetum flavescens</i>	Yellow oatgrass
<i>Urtica dioica</i>	Stinging nettle
<i>Verbascum nigrum</i>	Dark mullein
<i>Veronica chamaedrys</i>	Germander speedwell
<i>Vicia lutea</i>	Yellow vetch
<i>Vicia sativa</i>	Common vetch

Birds

<i>Acrocephalus schoenobaenus</i>	Sedge warbler
<i>Aegithalos caudatus</i>	Long-tailed tit
<i>Carduelis cannabina</i>	Linnet
<i>Carduelis carduelis</i>	Goldfinch
<i>Chloris chloris</i>	Greenfinch
<i>Columba palumbus</i>	Woodpigeon
<i>Corvus corone</i>	Carrion crow
<i>Erithacus rubecula</i>	Robin
<i>Falco tinnunculus</i>	Kestrel
<i>Fringilla coelebs</i>	Chaffinch
<i>Gallinago gallinago</i>	Common snipe
<i>Garrulus glandarius</i>	Jay
<i>Hirundo ristica</i>	Swallow
<i>Parus caeruleus</i>	Blue tit
<i>Parus major</i>	Great tit
<i>Passer domesticus</i>	House sparrow
<i>Perdix perdix</i>	Grey partridge
<i>Phylloscopus collybita</i>	Chiffchaff
<i>Phylloscopus trochilus</i>	Willow warbler
<i>Pica pica</i>	Magpie
<i>Picus viridis</i>	Green woodpecker
<i>Prunella modularis</i>	Dunnock
<i>Psittacula krameri</i>	Ring-necked parakeet
<i>Streptopelia decaocto</i>	Collared dove
<i>Strix aluco</i>	Tawny owl
<i>Sturnus vulgaris</i>	Starling
<i>Sylvia atricapilla</i>	Blackcap
<i>Sylvia communis</i>	Whitethroat
<i>Sylvia curruca</i>	Lesser whitethroat
<i>Troglodytes troglodytes</i>	Wren
<i>Turdus merula</i>	Blackbird

<i>Turdus philomelos</i>	Song thrush
<i>Tyto alba</i>	Barn owl

Mammals

<i>Apodemus sylvaticus</i>	Wood mouse
<i>Clethrionomys glareolus</i>	Bank vole
<i>Microtus agrestis</i>	Field vole
<i>Mustela rivalis</i>	Weasel
<i>Pipistrellus pipistrellus</i>	Common pipistrelle
<i>Rattus norvegicus</i>	Brown rat
<i>Sorex araneus</i>	Common shrew
<i>Sorex minutus</i>	Pygmy shrew
<i>Vulpes vulpes</i>	Red fox

Amphibians and reptiles

<i>Anguis fragilis</i>	Slow worm
<i>Lissotriton vulgaris</i>	Smooth newt
<i>Rana temporaria</i>	Common frog
<i>Zootoca vivipara</i>	Viviparous lizard

Butterflies and moths

<i>Acronicta rumicis</i>	Knot grass moth
<i>Aglais io</i>	Peacock
<i>Aglais urticae</i>	Small tortoiseshell
<i>Aricia agestis</i>	Brown argus
<i>Celastrina argiolus</i>	Holly blue
<i>Lasiocampa querus</i>	Oak eggar moth
<i>Macroglossum stellatarum</i>	Hummingbird hawk-moth
<i>Maniola jurtina</i>	Meadow brown
<i>Melanargia galathea</i>	Marbled white
<i>Pararge aegeria</i>	Speckled wood
<i>Phalera bucephala</i>	Buff-tip
<i>Phragmatobia fuliginosa</i>	Ruby tiger
<i>Pieris brassicae</i>	Large white
<i>Platyptilia gonodactyla</i>	Triangle plume moth
<i>Polygonia c-album</i>	Comma
<i>Polyommatus icarus</i>	Common blue
<i>Pyronia tithonus</i>	Gatekeeper
<i>Scoliopteryx libatrix</i>	Herald moth

<i>Spilosoma lubricipeda</i>	White ermine
<i>Thymelicus lineola</i>	Essex skipper
<i>Thymelicus sylvestris</i>	Small skipper
<i>Tyria jacobaeae</i>	Cinnabar moth
<i>Vanessa cardui</i>	Painted lady
<i>Yponomeuta cagnagella</i>	Spindle ermine
<i>Zygaena trifolii</i>	Five-spot burnet

Dragonflies and damselflies

<i>Aeshna mixta</i>	Migrant hawker
<i>Anax imperator</i>	Emperor dragonfly
<i>Ischnura elegans</i>	Blue-tailed damselfly
<i>Sympetrum sanguineum</i>	Ruddy darter
<i>Sympetrum striolatum</i>	Common darter

Bees, wasps and hoverflies

<i>Bombus lapidarius</i>	Red-tailed bumblebee
<i>Bombus lucorum</i>	White tailed bumblebee
<i>Bombus terrestris</i>	Buff-tailed bumblebee
<i>Diplolepis rosae</i>	Gall wasp
<i>Episyrphus balteatus</i>	Marmalade hoverfly
<i>Nomada fucata</i>	Painted nomad bee
<i>Scaeva pyrastris</i>	Hoverfly

Spiders

<i>Araneus diadematus</i>	European garden spider
<i>Araneus quadratus</i>	Four-spotted orb weaver
<i>Araniella cucurbitina</i>	Cucumber green orb spider
<i>Argiope bruennichi</i>	Wasp spider
<i>Pisaura mirabilis</i>	Nursery web spider

Grasshoppers and crickets

<i>Chorthippus brunneus</i>	Field grasshopper
<i>Chorthippus parallelus</i>	Meadow grasshopper
<i>Leptophyes punctatissima</i>	Speckled bush-cricket
<i>Tettigonia viridissima</i>	Great green bush cricket

Aquatic invertebrates

<i>Chaoborus</i> sp.	Glassworm
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<i>Coenagrionidae sp.</i>	Damselfly nymph
<i>Gerridae sp.</i>	Water boatman
<i>Lymnaea stagnalis</i>	Great pond snail
<i>Notonecta sp.</i>	Common backswimmer
<i>Planorbis corneus</i>	Great ramshorn snail
<i>Plea minutissima</i>	Pygmy backswimmer
<i>Cantharidae sp.</i>	Soldier beetle species
<i>Cicadellidae sp.</i>	Leaf hopper
<i>Class Diplopoda</i>	Millipede species
<i>Coccinella septempunctata</i>	Seven-spot ladybird

Other invertebrates

<i>Cantharidae sp.</i>	Soldier beetle species
<i>Cicadellidae sp.</i>	Leaf hopper
<i>Class Diplopoda</i>	Millipede species
<i>Coccinella septempunctata</i>	Seven-spot ladybird
<i>Coreus marginatus</i>	Dock bug
<i>Dolycoris baccarum</i>	Hairy shieldbug
<i>Formica rufa</i>	Wood ant
<i>Formicidae sp.</i>	Ant species
<i>Halipus sp.</i>	Beetle species
<i>Harmonia axyridis</i>	Harlequin ladybird
<i>Oedemera nobilis</i>	Thick legged flower beetle
<i>Oxyporus rufus</i>	Rove beetle
<i>Podagrica fuscicornis</i>	Mallow flea beetle
<i>Rhagonycha fulva</i>	Red soldier beetle
<i>Phaenicia sp.</i>	Green bottle fly
<i>Statiomyidae sp.</i>	Soldier fly
<i>Tipulidae sp.</i>	Crane fly
<i>Capaea hortensis</i>	White lipped snail
<i>Class Clitellata</i>	Annelid worm