

Sevenoaks Greensand Commons Project

Crockhamhill Common

Ecological Scoping & Outline Nature Conservation Management Plan



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Protecting **Wildlife** for the Future

Contents

1	INTRODUCTION	1
1.1	Background	1
1.2	Survey Location / Area	1
1.3	Limitations and Constraints	2
2	METHODOLOGY	6
2.1	Desktop Study	6
2.2	Site Visit	6
2.2.1	Preliminary Phase 1 Habitat Survey	7
2.2.2	Preliminary Woodland Condition Survey	7
2.2.3	Preliminary Veteran Tree Check	7
2.2.4	Preliminary Identification of Access Issues	8
3	RESULTS	9
3.1	Designated Nature Conservation Sites	9
3.2	Geology and Soils	9
3.3	Habitats	9
3.4	Preliminary Woodland Condition Survey	17
3.5	Preliminary Veteran Tree Check	26
3.6	Species	27
3.7	Identification of Access Issues	30
4	ENHANCEMENT OPPORTUNITIES	33
4.1	Site Evaluation	33
4.2	Preliminary Habitat Management	36
4.2.1	Preliminary Habitat Management Suggestions	36
4.2.1.1	Management of Existing Woodland / Plantation / Wood Pasture Areas	36
4.2.1.2	Management of Relict Heathy Areas	38
4.2.1.3	Species	38
4.3	Additional Survey Work	39
5	REFERENCES	40
	APPENDIX A: Site Photographs	41
	APPENDIX B: LWS Citation	54
	APPENDIX C: Google Earth Aerial photographic images	57
	APPENDIX D: Informal drawing showing main areas of bilberry identified in 2004	59
	APPENDIX E: Preliminary Woodland Condition Survey	60

1 INTRODUCTION

1.1 Background

Sevenoaks District Council, working in conjunction with Kent Wildlife Trust, has secured funding from the Heritage Lottery Fund (HLF) to enhance the natural heritage of eight Commons occurring within Sevenoaks District.

The Commons, which include - Hosey Common, Farley Common, Crockhamhill Common, Bitchet Common, Fawke Common, Seal Chart & Redhill Woods, Sevenoaks Common, and a small Common in Weald village in Sevenoaks – cover an area of nearly 300ha of varied habitats ranging from high forest to coppiced woodland and rare wooded heath. The Commons are connected to the long distance Greensand Way path which runs along the ridge and joins the National Trust properties of Chartwell, Knole and Ightham Mote. An overview map showing the location of each of the Commons is included at Figure 1.

For the purposes of this project the eight Commons are collectively known as the Sevenoaks Greensand Commons. They are some of the most beautiful wild places in the south east, but have become overgrown and undervalued.

The aim of the project is to turn the tide and reignite a sense of value and interest in the natural heritage of the Commons by recruiting and training volunteers and implementing an exciting programme of practical restoration, public participation in scientific research and heritage learning activities. It will see the landowners and stakeholders coming together to engage local people and support a shared effort to restore, protect and manage these Commons. It will also develop Friends of the Commons groups, as well as building the skills and capacity of local people to protect, manage and promote the heritage of the Commons for present and future generations.

Under-pinning this work is the provision of a series of ecological scoping and outline nature conservation management reports which will identify and evaluate the existing biodiversity features (habitats and species) known to occur on the Commons, and make outline recommendations for nature conservation management aimed at maintaining and enhancing the existing biodiversity interest of each Common.

Crockhamhill Common is owned by the Squerryes Estate and managed by Sevenoaks District Council.

This report presents the findings of the desktop study and site walkover of Crockhamhill Common.

1.2 Survey Location / Area

Crockhamhill Common lies approximately two kilometres to the south of Westerham at central OS grid reference TQ445516.

Crockhamhill Common extends to approximately 85ha and is bounded by a variety of habitats including broadleaved semi-natural and replanted woodland – fragments of which

are included on the ancient woodland inventory¹, and grassland. Parts of the southern and western boundaries abut roads and residential development. Hosey Common Road cuts through the Common, running in a north-south direction, effectively dividing the Common into two discrete areas.

A map and aerial photographic extract showing the general location and boundaries of the Common are included at Figures 2 and 3.

1.3 Limitations and Constraints

The timing for the delivery of this HLF project has imposed several limitations on this element of the work in terms of seasonality and time.

The site survey was undertaken at a sub-optimal time of year when many plant species that may occur on the Common will not be visible. Time constraints also meant that it was only possible to make a single site visit to the Common. The combined effect will have impacted the detailed recording of the site and limited the overall number of species recorded. However, it is unlikely to have impacted the identification / evaluation of important habitats or their potential to support protected species.

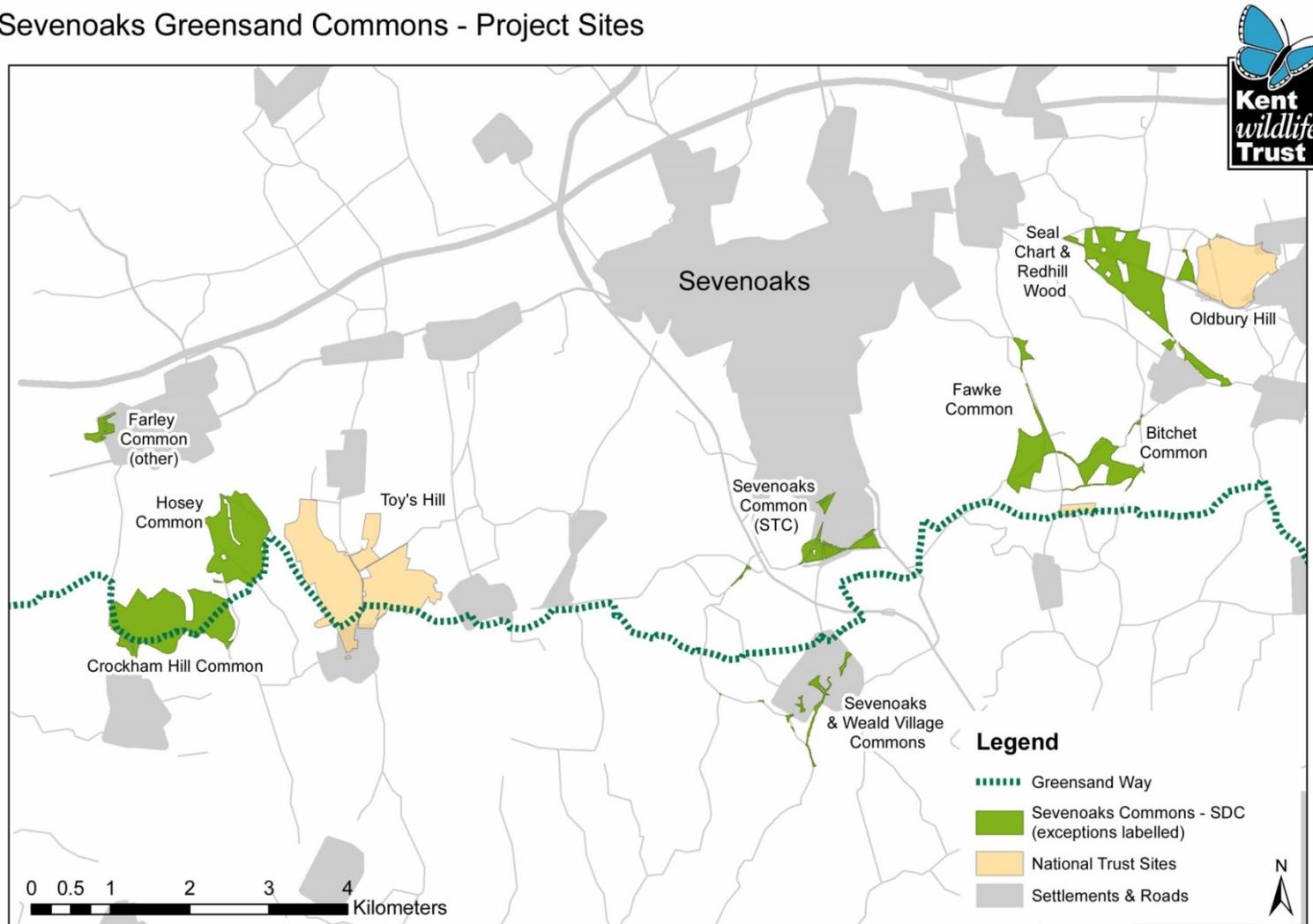
It should also be noted that the findings of this report represent the professional opinion of a qualified ecologist and do not constitute professional legal advice.

¹ See map at

<http://www.magic.gov.uk/MagicMap.aspx?chosenLayers=ancwoodIndex,backdropDIndex,backdropIndex,europeIndex,vmlBWIndex,25kBWIndex,50kBWIndex,250kBWIndex,miniscaleBWIndex,baseIndex&box=542660:150790:546002:153219&useDefaultBackgroundMapping=false>

Ancient woodland in England is defined as an area that has been wooded continuously since at least 1600 AD. Woodlands classed as ancient are irreplaceable, with ancient woodland being considered important for its wildlife, soils, recreation, cultural value, history and contribution to landscapes.

Sevenoaks Greensand Commons - Project Sites



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Figure 1: Sevenoaks Greensand Commons. Overview Map

Sevenoaks Greensand Charts and Commons - Project Sites - Crockhamhill Common

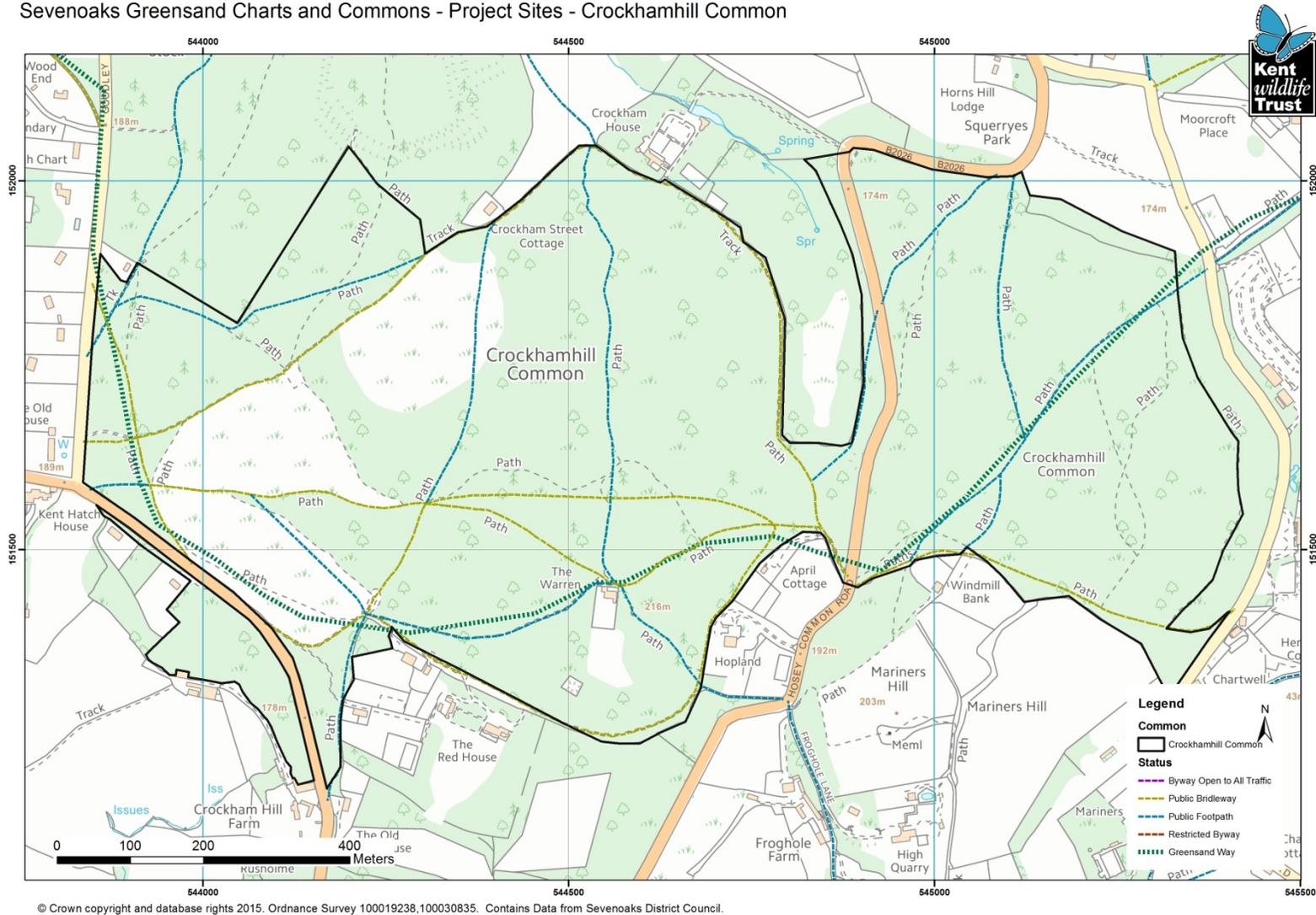


Figure 2: Crockhamhill Common. Site Location and Boundary Map



Figure 3: Crockhamhill Common. Google Earth Aerial photographic extract (image date 6 June 2013) showing the boundary of the Common (outlined in red). *All boundaries are indicative only. Do not scale*

2 METHODOLOGY

2.1 Desktop Study

A number of sources were consulted for records of statutory and non-statutory wildlife designations, notable habitats and protected / notable species. These comprised:

- Kent and Medway Biological Records Centre ² (KMBRC)
- Kent Reptile and Amphibian Group ³ (KRAG)
- Kent Wildlife Trust (KWT)

KMBRC was asked to carry out a database search of the Westerham cluster of Commons, which included Crockhamhill Common⁴. They were asked to provide information relating to the following:

- Statutory and non-statutory designated nature conservation sites
- Identification, distribution and extent of habitats⁵
- Protected Species Inventory
- Conservation Concern Species Inventory (NERC Section 41 & BAP Priority)
- Invasive Non-native Species Inventory
- Kent Rare & Scarce Species Inventory
- Bat records from Kent Bat Group (including map of nearby roost locations)
- Bird records from Kent Ornithological Society, including an indication of breeding
- Habitat data from the Kent Integrated Habitat Survey 2012⁶
- BAP habitat data from the Kent Integrated Habitat Survey 2012

KRAG was asked to provide information relating to the following:

- Inventory of reptiles and amphibians
- Inventory of ponds

KWT carried out a search of its Local Wildlife Sites site files for any relevant habitat, species or management information relating to Crockhamhill Common.

In addition, KWT also utilised open source data, such as that provided by the British Geological Society⁷, for information relating to geology and the Soilsapes website⁸ for information relating to soils.

2.2 Site Visit

Crockhamhill Common was visited on 4th, 5th and 7th April 2017 by Neil Coombs CEnv MCIEEM, Land Management Advisor for Kent Wildlife Trust.

² www.kmbrc.org.uk

³ <http://www.kentarg.org/>

⁴ Other Commons included within the Westerham Cluster are Farley Common and Hosey Common

⁵ Identification of habitats are based on the results of the Arch Habitat Survey of Kent – available to view at

<http://www.archnature.eu/mapping-tools.html>

⁶ <http://www.archnature.eu/mapping-tools.html>

⁷ <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>

⁸ <http://www.landis.org.uk/soilsapes/>

Weather conditions at the time of the site visits were as follows:

4th April: Sunny

5th April: Sunny

7th April: Sunny

The walkover survey comprised four elements: a Phase 1 Habitat Survey; a preliminary Woodland Condition Assessment; a preliminary veteran tree check; and a preliminary check for access issues.

2.2.1 Preliminary Phase 1 Habitat Survey

The habitat survey was undertaken in general accordance with Phase 1 Habitat Survey methodology, which provides a standardised system for classifying and mapping wildlife habitats (JNCC, 2010). The survey involved mapping vegetation types onto aerial photographs⁹, in terms of some ninety specified habitat types, using standard colour codes. Further information is gained from the use of descriptive ‘target notes’, which give a brief account of particular areas of interest.

2.2.2 Preliminary Woodland Condition Survey

The methodology used for the preliminary woodland condition survey was adapted from the Common Standards Monitoring Guidance for Woodlands¹⁰ (JNCC, 2004), and the Condition Assessment Monitoring Form for Woodlands¹¹ (Essex Wildlife Trust). It targeted the woodland areas only and provided basic information relating to:

- Woodland type (i.e. native / secondary / scrub / PAWS / broadleaved / conifer)
- Main species composition and main compartments
- Stand type i.e. coppicing, maiden, plantation
- Age class
- Evidence of historic features i.e. wood banks (limited to what is noted during walkover only)
- Evidence of existing management
- General Condition Assessment i.e. under active management, neglected, unmanaged.

2.2.3 Preliminary Veteran Tree Check

The aim of the preliminary veteran tree check was to:

- Establish presence / absence of veteran trees on site.
- Provide general location data for trees e.g. ‘veteran trees are mainly concentrated in the southern end’, or ‘scattered throughout the site’
- Provide general information about main species noted i.e. oak, hornbeam, ash, etc.

⁹ Using the Phase 1 Habitat Survey Toolkit <https://www.brookes.ac.uk/bms/services/ceec/phase-one-habitat-survey-toolkit/about/>

¹⁰ Document available to download from http://jncc.defra.gov.uk/pdf/CSM_woodland.pdf

¹¹ Form available to download from <http://www.essexwtrecords.org.uk/sites/default/files/surveyfiles/EWT%20woodland%20condition%20assessment%20form%20amended%2014%2003%2012.pdf>

2.2.4 Preliminary Identification of Access Issues

The preliminary identification of potential access issues was based on what is evident during the site walkover. It included noting the presence of formal / informal paths, existing car parks, apparent use of site i.e. Dog walkers, families, recreation, evidence of fly-tipping or unauthorised vehicular use.

A series of photographs taken during the site visit are included at Appendix A.

3 RESULTS

3.1 Designated Nature Conservation Sites

Crockhamhill Common is not included within any statutory nature conservation sites. It is however included within part of a larger Local Wildlife Site¹² (SE39: Crockhamhill Common, etc.). The reason for designation is that the whole Local Wildlife Site comprises, “*Acidic and neutral woodland with heathy areas. It was once open grazed common land with isolated trees and copses and therefore not on the Ancient Woodland Inventory. However, 23 ancient woodland indicator higher plants were recorded during the latest survey and a good acid bryophyte flora is present. Over 130 fungi have been recorded between 1998 and 2004. The woodland is part of a large block of woodland / heathland extending along the greensand ridge well to the east of Sevenoaks and, with small breaks, almost to Maidstone.*”

A copy of the citation is included at Appendix B.

3.2 Geology and Soils

The British Geological Survey website¹³ describes the bedrock geology as, “Hythe Formation - Sandstone And [subequal/subordinate] Limestone, Interbedded. Sedimentary Bedrock formed approximately 112 to 125 million years ago in the Cretaceous Period.” The superficial geology is limited to the southwestern part of the site and is described as, “Head - Clay, Silt, Sand And Gravel. Superficial Deposits formed up to 3 million years ago in the Quaternary Period.”

The Soilscales website¹⁴ has identified the soils on Crockhamhill Common as being ‘Freely draining slightly acid loamy soils’¹⁵.

Geology and soil maps are available to view on the British Geological Survey and Soilscales websites. Owing to copyright restrictions it is not possible to include map extracts within this report.

3.3 Habitats

The 2012 Kent Habitat Survey shows the site as being dominated by two woodland types: ‘WB3 broadleaved woodland’¹⁶ and ‘WCZ other coniferous woodland’¹⁷. The Kent Habitat Survey has also identified discrete, small areas of three additional habitat types: ‘GNZ other neutral grassland’¹⁸; ‘BRZ other continuous bracken’¹⁹; and ‘HE11 Calluna vulgaris dry heath’²⁰. The Kent Habitat Survey has also identified that the broadleaved woodland areas of the site are included on Natural England’s Priority Habitat Inventory as ‘Lowland mixed

¹² Local Wildlife Sites are considered to be of county wildlife importance. They can contain important, distinctive and threatened habitats and species. Further information is available at <http://www.wildlifetrusts.org/localwildlifesites>

¹³ <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>

¹⁴ <http://www.landis.org.uk/soilscales/#>

¹⁵ Soilscale 6

¹⁶ WB3: ‘Dry’ woods predominantly composed of broadleaf and yew species (i.e. with >80% broadleaves and yew (*Taxus baccata*) in the canopy).

¹⁷ WCZ: Includes all coniferous plantation and other forest with >20% cover of introduced coniferous species.

¹⁸ GNZ: Semi-improved neutral grasslands in the lowlands

¹⁹ BRZ: Areas dominated by dense bracken

²⁰ HE11: Heather dominated or co-dominated dry heath vegetation

deciduous woodland’, whilst the Magic website identifies Crockhamhill Common as Wood Pasture²¹.

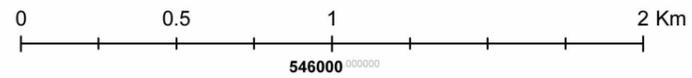
The habitat map provided by KMBRC is attached at Figure 4.

The Local Wildlife Site file includes a map showing the main areas of bilberry identified during a previous survey carried out in 2004 (Appendix D).

²¹ Shown on Magic website at <http://www.magic.gov.uk/MagicMap.aspx?chosenLayers=bapwoodIndex,backdropDIndex,backdropIndex,europaIndex,vmlBWIndex,25kBWIndex,50kBWIndex,250kBWIndex,miniscaleBWIndex,baseIndex&box=543872:151091:545543:152306&useDefaultBackgroundMapping=false>

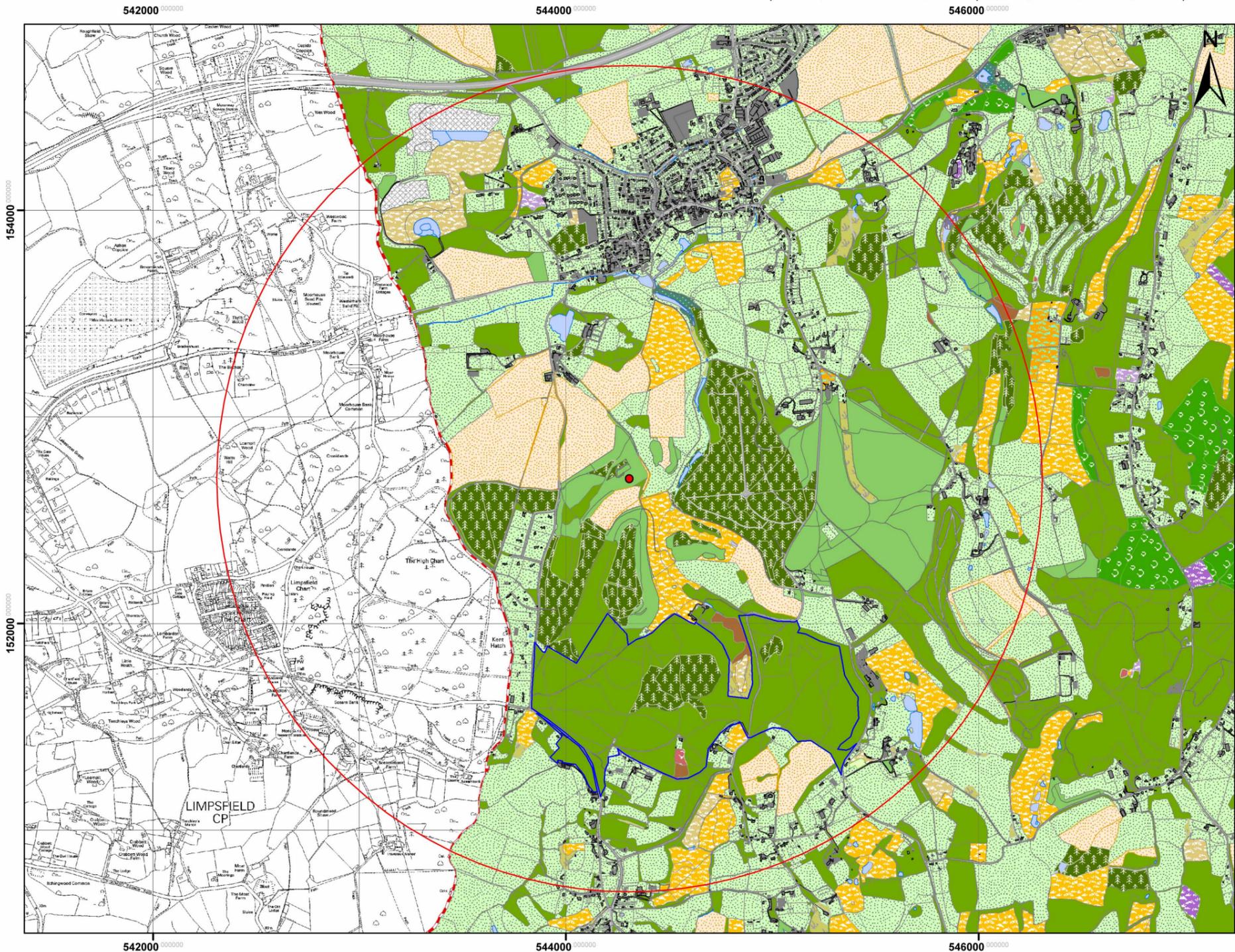


Kent & Medway Biological Records Centre
 Map showing the habitats recorded by the Kent Habitat Survey 2012 at
 Westerham Cluster
 Anne Waite, Kent Wildlife Trust
 ENQ/17/119 17/03/2017



KMBC would like to acknowledge Kent County Council and the Kent Habitat Survey 2012 for the habitat data used in this map. See www.archnature.eu/ for more information

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KEY

- Study Area
- Site Point
- Kent Habitat Survey 2012**
- Urban and industrial environment (LF, UR, RE)**
 - Transport network
 - Built road verge
 - Buildings or general built surface
 - Quarry
- Agriculture and improved grassland (GI, CR, FT)**
 - Improved grassland
 - Arable
 - Traditional orchard
- Neutral grassland (GN)**
 - Semi-improved lowland meadow
 - Coarse neutral grassland
 - Semi-improved neutral grassland
- Acid grassland (GA)**
 - Lowland dry acid grassland
 - Semi-improved lowland dry acid grassland
- Woodland (WB, WC)**
 - Mixed woodland
 - Scrub woodland
 - Broad leaved woodland
 - Beech and yew woodland
 - Wet woodland
 - Plantation coniferous woodland
- Heath and bracken (HE, BR)**
 - European dry heath
 - Continuous bracken
- Wetland (EM)**
 - Other swamp vegetation
- Water (AS, AR)**
 - Open standing water, fresh
 - Rivers and streams, fresh
 - County Boundary

Figure 4: Crockhamhill Common. Kent Habitat Survey, 2012. For ease of reference Crockhamhill Common is shown outlined in blue

The 2017 Phase 1 Habitat Survey results were broadly similar, confirming that Crockhamhill Common comprises predominantly woodland of three main types: broadleaved semi-natural woodland, mixed semi-natural woodland and plantation woodland, some of which was dominated by conifers – mainly pine, while other areas were dominated by broadleaved species such as sweet chestnut. Several discrete areas of heathy vegetation were also recorded – some of which has been overplanted with sweet chestnut.

The Phase 1 Habitat map is enclosed at Figure 5.

Compartments 1 – 14 and Target Notes 1 – 21, included at Table 1 below, provide descriptions of the habitats and other features encountered during the site walkover.

Table 1: Crockhamhill Common Target Notes

Cmpt No / Target Note	Phase 1 Habitat Type (Area)	Description	Species recorded (Abundance (DAFOR ²²)) during 2017 walkover
East of Hosey Common Road			
Cmpt 1	Broadleaved semi-natural woodland (12.03ha)	Mostly mixed broadleaved semi-natural woodland over probable former wood-pasture with scattered trees. Evidence of previous sand workings. Rhododendron was present in this area. Birds recorded on the day of the visit included greater spotted woodpecker and nuthatch.	Sycamore <i>Acer pseudoplatanus</i> (F); bluebell <i>Hyacinthoides non-scripta</i> (F); <i>Rubus fruticosus</i> agg. (F); birch <i>Betula</i> sp. (O); Buddleja <i>Buddleja davidii</i> (O); hazel <i>Corylus avellana</i> (O); common nettle <i>Urtica dioica</i> (O); oak <i>Quercus</i> sp. (O); bracken <i>Pteridium aquilinum</i> (O); Rhododendron <i>Rhododendron ponticum</i> (O); wild cherry <i>Prunus avium</i> (R).
Cmpt 2	Mixed woodland - plantation (12.94ha)	Conifer plantation over wood pasture with varying density of trees (Photograph 2). Some occasional coppice stools. Very occasional veteran coppice. Some standard oaks. Occasional yew. Birch of all age classes. Plantation stands of pine. Holly is present as an understory (Photograph 3). Occasional pines as open planted specimens up to 50cms dbh. Veteran beech present (TN1; photograph 1). Limited ground flora with bilberry occasional. Rhododendron occasional. Birds recorded on day of visit included chiffchaff, wren, buzzard, song thrush, great tit.	Birch (A); pines (F); oak (F); beech <i>Fagus sylvatica</i> (O); holly <i>Ilex aquifolium</i> (O); lord's-and-ladies <i>Arum maculatum</i> (O); yew <i>Taxus baccata</i> (O); bilberry <i>Vaccinium myrtillus</i> (O); bluebell (O-A).
TN1	-	TQ44926 51993. Veteran beech. Multi-stemmed former coppice stool.	
TN2	-	TQ449519. Plantation stand of mature pine. Estimated to have been planted probably sometime in the 1960s.	
TN3	-	TQ449518. Evidence of localised previous sand workings (Photograph	

²² DAFOR = **D**ominant; **A**bundant; **F**requent; **O**ccasional; **R**are

Cmpt No / Target Note	Phase 1 Habitat Type (Area)	Description	Species recorded (Abundance (DAFOR ²²)) during 2017 walkover
		4).	
TN4	-	TQ449515. At this point the ground slopes steeply down to Hosey Common Road, with abundant holly as the understorey with mature Scots pine to canopy (Photograph 5). Coppiced beech, hazel and bluebell was also recorded in this area.	Holly (F); hazel <i>Corylus avellana</i> (O); bluebell (O); Scots pine (O); beech (R).
TN5	-	Line of mature boundary beeches (Photograph 6).	
West of Hosey Common Road			
Cmpt 3	Broadleaved semi-natural woodland (2.78ha)	A typical woodland compartment with abundant bluebell, mature standard oak and beech, occasional coppice hazel. Sycamore and horse chestnut both recorded. Compartment grades south to established sycamore with lesser celandine to ground flora. Birds recorded on the day of the survey included chiffchaff, blackbird and wren.	Bluebell (A); birch semi-established (F); dog's mercury <i>Mercurialis perennis</i> (O - F); oak (F); sycamore (F); lord's-and-ladies (F); ash mature coppice (O); beech (O); hazel (O); hornbeam <i>Carpinus betulus</i> (R); Scots pine mature (R).
Cmpt 4	Broadleaved semi-natural woodland (9.63ha)	Mixed broadleaved semi-natural woodland (Photograph 8) on rising ground to hilltop. Birch is establishing over what may have once been a more open woodland or wood pasture habitat as mature beech and holly understorey are present. At hilltop this gives way to mature pine and occasional birch with a more acidic habitat with bilberry and bracken. Veteran coppice beech is present (Photograph 9). Rhododendron is invasive.	Birch (F); hazel (O - F); holly (O); oak (R-O); beech (R); rowan <i>Sorbus aucuparia</i> (O); sycamore (O); Scots pine (R); yew (R); rhododendron (O); bracken (O); bramble (O); bluebell (A); bilberry (O).
Cmpt 5	Mixed semi-natural woodland (7.72ha)	Woodland with a holly understorey and much regenerating birch. May have been damaged in the 1987 Storm. Some very mature beech suggests that this woodland may once have had a much more open canopy. Rhododendron is present in this compartment.	Birch (O-A); holly (A); beech (R-F); sycamore (F); hazel (O); oak (R-O); rowan (O); yew (O); sweet chestnut (R); rhododendron (O); bramble (R); wood anemone <i>Anemone nemorosa</i> (O); bluebells (O); daffodils (O).
Cmpt 6	Coniferous woodland – plantation (0.85ha)	Mature conifer plantation with some mixed native broadleaved woodland to path. Limited ground flora with occasional bilberry	Beech (O); birch (O); oak (O); rowan (R); pine (R); bilberry (O); honeysuckle (O).
Cmpt 7	Coniferous woodland – plantation (6.53ha)	Extensive plantation with close planted conifers to 20m tall grading to open edges with mixed broadleaved woodland establishing and some occasional open mature pines (Photograph 12). Ground flora was heathy with vegetation including bracken and heather <i>Calluna vulgaris</i> .	Birch (O); rhododendron (O); bracken (O); heather (O).

Cmpt No / Target Note	Phase 1 Habitat Type (Area)	Description	Species recorded (Abundance (DAFOR ²²)) during 2017 walkover
		Rhododendron was present in this compartment.	
Cmpt 8	Broadleaved semi-natural woodland (1.41ha)	Compartment includes semi-established yew with mature oak standards grading into yew/beech woodland (Photograph 14 & 15). Silver birch was present throughout. Bramble was frequent in the understory. Bluebell was recorded in the ground flora. Rhododendron was present in this compartment.	
Cmpt 9	Dry dwarf shrub heath – acid (3.59ha)	Open area of heathland with heather and birch and rowan seedlings now planted with sweet chestnut (Photographs 19 – 21). Other species recorded occasionally included pine seedlings and gorse. Rhododendron was present in this compartment.	Sweet chestnut (A); birch (F); pine (R); rowan (F); holly (R); rhododendron (R); gorse <i>Ulex europaeus</i> (O); heather (F).
Cmpt 10	Broadleaved semi-natural woodland (14.11ha)	Secondary woodland over former wood pasture (Photographs 22 – 24). Woodland was dominated by birch with oak standards. Other species recorded included rowan, sycamore, sweet chestnut and occasional Scots pine and elder <i>Sambucus nigra</i> . Holly was frequent in the understorey. The ground flora was dominated by bramble. Ferns, including broad buckler-fern <i>Dryopteris dilatata</i> were also observed. Veteran oak pollard present. Cherry laurel was observed in this compartment.	Birch (F); oak (F); rowan (F); holly (F); sycamore (O); sweet chestnut (O); Scots pine (R); elder (R); bramble (F); broad buckler-fern (R).
Cmpt 11	Broadleaved semi-natural woodland (0.69ha)	Woodland with standard oak, some coppice or multi-stemmed beech with birch establishing and competing with establishing yew (Photograph 25 -26). In places this sloping compartment has characteristics of lowland beech and yew woodland. Ground flora was sparse; bramble was the only species recorded. Rhododendron was present.	
Cmpt 12	Mixed woodland – semi-natural (6.52ha)	Dominated by mature sycamore and Scots pine with standard oaks. Birch was frequent throughout. Other species recorded included rowan and holly with occasional hawthorn. Bramble was present in the ground flora. The woodland grades to secondary semi-established birch over a holly	Sycamore (F); birch (F); Scots pine (F); oak (F); holly (F); rowan (R); rhododendron (F); hawthorn (R); bramble (F).

Cmpt No / Target Note	Phase 1 Habitat Type (Area)	Description	Species recorded (Abundance (DAFOR ²²)) during 2017 walkover
		understorey which may indicate development over former relict wood pasture / heath. Rhododendron is present. Evidence of extensive previous sand workings.	
Cmpt 13	Broadleaved plantation (2.74ha)	Sweet chestnut plantation over possible former open wood pasture / heathland habitat. Not surveyed extensively but areas visited appear very similar to Compartment 9	
Cmpt 14	Broadleaved semi-natural woodland (2.44ha)	Very difficult area to access, but appears to resemble Compartment 10.	Sycamore (F); hazel (O); ash (O); beech (R); oak (R); blackthorn <i>Prunus spinosa</i> (O); ivy (F); bluebell (O).
TN6		TQ448515. Boundary bank approx. 66m long.	
TN7		TQ448515. Small group of yews. Also evidence of previous sand workings.	
TN8		TQ448515. Very mature, possibly veteran, Scots pine.	
TN9		TQ448515. Veteran oak.	
TN10		TQ447515. Three veteran coppice beech and a veteran pollard beech within a mosaic of established birch and one mature standard beech.	
TN11		TQ447517. Wood bank approx. 245m long. Veteran coppice layered beech with occasional standard beech all in good condition (Photograph 10). Requires further survey work. Bluebell present in ground flora.	
TN12		TQ447516. Woodland grading to beech woodland, with beech and birch standards and holly and birch present in the understorey.	Beech (R); birch (O - F); holly (F).
TN13		TQ447516. Woodland grading to birch secondary woodland. Mature rhododendron occasional.	
TN14		TQ447518. Mature yew.	
TN15		TQ446518. Mature birch.	
TN16		TQ444519. Evidence of previous sand workings	
TN17		TQ443515. Oak.	
TN18		TQ442514. Coppice beech.	
TN19		TQ439516. Beech pollard.	
TN20		TQ440516. Open clearing within woodland.	Birch (F); gorse (F).
TN21		TQ444513. Very mature beech with semi-establishing yew and a ground flora of bluebells, birch and sycamore (perhaps invasive).	

Sevenoaks Greensand Charts and Commons - Crockhamhill Common: Phase 1 Habitat Survey Map

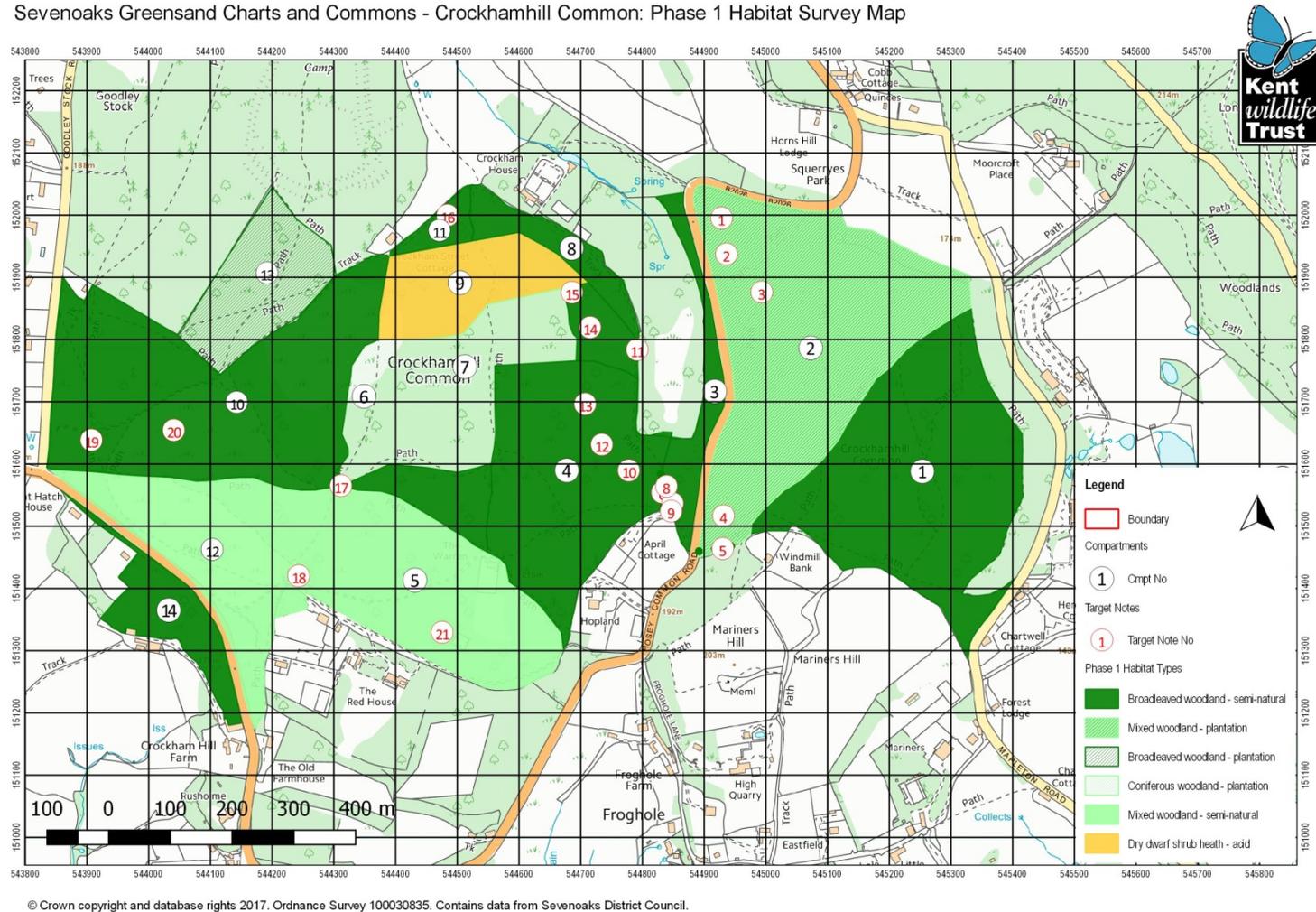


Figure 5: Crockhamhill Common. Phase 1 Habitat Map, based on site walkover survey April 2017

3.4 Preliminary Woodland Condition Survey

A preliminary woodland condition survey was undertaken across all fourteen compartments (Figure 5). The results are presented in Tables 2 - 15 below. The Species / Structure / Age Class data has also been represented in a series of bar charts, attached at Appendix E.

Table 2: Crockhamhill Common Compartment 1. Preliminary Woodland Condition Survey

Feature	Description
Woodland Type:	Broadleaved Semi-natural Woodland.
Habitat Type: e.g. Coppice woodland; Ride; Glade; Wood Pasture:	Mixed native broadleaved woodland over probable former wood pasture.
Species / Structure / Age Class: Key to abbreviations Seedling (SE) Sapling (SA) Semi-established (SET) Established (EST) Mature (MAT) Standard (STA) Shrub layer/Understorey (SL/US) Over mature Veteran (V) Coppice <5 years Scrub height Mature (for species) Percentages where given are rough percentages of that feature	Sycamore SE 60% Oak MAT STA 50cms dbh 20% Birch SET 20% Wild cherry EST 10% Hazel SL/US 20% Hawthorn SL/US 20% Bramble SL/US 40% Buddleja SL/US 20% Rhododendron SL/US 20%
Ground Flora:	Bluebell frequent throughout; common nettle occasional; bracken occasional.
Fungi:	None observed.
Decaying Wood: Standing: Fallen:	None observed.
Invasive Species:	Rhododendron Buddleja
Deer Damage:	None observed.
Historic Features:	None noted on initial survey.
General Comments:	Mostly mixed broadleaved semi-natural woodland over probable former wood-pasture with scattered trees as shown in historical aerial photographs (Appendix C). Evidence of previous sand workings.

Table 3: Crockhamhill Common Compartment 2. Preliminary Woodland Condition Survey

Feature	Description
Woodland Type:	Mixed woodland plantation over what may have been former wood-pasture.
Habitat Type: e.g. Coppice woodland; Ride; Glade; Wood Pasture:	Plantation Conifer stands over scattered native broadleaves with established and establishing birch.
Species / Structure / Age Class: Key to abbreviations	Pine MAT 30-40cms dbh 20m+ height <40% Beech mature coppice stool <10%

Seedling (SE) Sapling (SA) Semi-established (SET) Established (EST) Mature (MAT) Standard (STA) Shrub layer/Understorey (SL/US) Over mature Veteran (V) Coppice <5 years Scrub height Mature (for species) Percentages where given are rough percentages of that feature	Birch all age classes to MAT <40% Sycamore all age classes to semi-MAT <20% Oak semi-MAT STA 30cms dbh <10cms Beech EST STA 15cms dbh <10% Hazel coppice SL/US <10% Holly SL/US <20% Yew semi-MAT/US 10% Wild Cherry EST <10% Bramble SL/US <20% Rhododendron SL/US 20%.
Ground Flora:	Bluebell O – A; lord's-and-ladies R (<10%); common nettle A (>60%); bracken O (10%); bilberry (10%)
Fungi:	None observed.
Decaying Wood:	10-20%
Standing:	Standing <10%
Fallen:	Fallen (scattered) 10-20%
Invasive Species:	Rhododendron.
Deer Damage:	None observed.
Historic Features:	Evidence of previous sand workings.
General Comments:	Mixed woodland compartment on rising ground with stands of mature pine, some remnants of former mixed broadleaved semi-natural woodland and traditional management such as occasional coppice stools. Birch has and is colonising what may previously have been more open wood-pasture with scattered trees as shown in historical aerial photographs (Appendix C).

Table 4: Crockhamhill Common Compartment 3. Preliminary Woodland Condition Survey

Feature	Description
Woodland Type:	Broadleaved semi-natural Woodland.
Habitat Type: e.g. Coppice woodland; Ride; Glade; Wood Pasture:	
Species / Structure / Age Class: Key to abbreviations Seedling (SE) Sapling (SA) Semi-established (SET) Established (EST) Mature (MAT) Standard (STA) Shrub layer/Understorey (SL/US) Over mature Veteran (V) Coppice <5 years Scrub height Mature (for species) Percentages where given are rough percentages of that feature	Oak MAT STA 10 - 20% Beech coppice <20% Hazel coppice <20% Ash coppice MAT <20% Horse chestnut MAT >5% Sycamore SA / SET / EST / MAT >20% Pine STA MAT <10%
Ground Flora:	Bluebells abundant, lord's-and-ladies, dog's mercury, lesser celandine.
Fungi:	None observed.

Decaying Wood:	10-20%
Standing:	Standing <5%
Fallen:	Fallen >10%
Invasive Species:	None observed.
Deer Damage:	None observed.
Historic Features:	Possible boundary of assart or woodland pasture enclosure.
General Comments:	Compartment of typical woodland with some coppice ash and hazel and standard oak and beech with lesser celandine, bluebell abundant and dog's mercury. Sycamore is establishing.

Table 5: Crockhamhill Common Compartment 4. Preliminary Woodland Condition Survey

Feature	Description
Woodland Type:	Mixed broadleaved semi-natural woodland.
Habitat Type: e.g. Coppice woodland; Ride; Glade; Wood Pasture:	
Species / Structure / Age Class: Key to abbreviations Seedling (SE) Sapling (SA) Semi-established (SET) Established (EST) Mature (MAT) Standard (STA) Shrub layer/Understorey (SL/US) Over mature Veteran (V) Coppice <5 years Scrub height Mature (for species) Percentages where given are rough percentages of that feature	Pine MAT 40% Scots pine MAT 20% Birch MAT20% Holly US 15% Rowan MAT 20% Rowan SET 20% Rowan SAP 10% Birch SAP 40% Beech V MAT 5% Beech V Coppice 5% Beech EST 20%
Ground Flora:	Bilberry, bracken, bluebells.
Fungi:	None observed.
Decaying Wood: Standing: Fallen:	Decaying Wood 5-20%.
Invasive Species:	Rhododendron.
Deer Damage:	None observed.
Historic Features:	None observed.
General Comments:	Mixed broadleaved semi-natural woodland on rising ground to hilltop. Birch is establishing over what may have once been a more open woodland or wood pasture habitat as mature beech and holly understorey are present. At hilltop this gives way to mature pine and occasional birch.

Table 6: Crockhamhill Common Compartment 5. Preliminary Woodland Condition Survey

Feature	Description
Woodland Type:	Mixed Woodland – semi-natural.
Habitat Type: e.g. Coppice woodland; Ride; Glade; Wood Pasture:	

Species / Structure / Age Class: Key to abbreviations Seedling (SE) Sapling (SA) Semi-established (SET) Established (EST) Mature (MAT) Standard (STA) Shrub layer/Understorey (SL/US) Over mature Veteran (V) Coppice <5 years Scrub height Mature (for species) Percentages where given are rough percentages of that feature	Holly US dominant 40% Birch Established frequent 20% Birch SET frequent 20% Oak MAT STA 40cms dbh occasional to 10% Sycamore SET frequent to 20% Hazel US occasional to 10% Yew SET occasional to 10% Very mature beech (TN21) occasional
Ground Flora:	Bluebell frequent to 20% Common nettle occasional to 10%
Fungi:	None observed.
Decaying Wood: Standing: Fallen:	Decaying Wood 10% Standing Wood >5% Fallen Wood >5%
Invasive Species:	Rhododendron.
Deer Damage:	None observed.
Historic Features:	None observed.
General Comments:	Mixed semi-natural woodland with holly understorey and much regenerating birch. Might have been damaged in 1987 storm. Some very mature beech suggests that this woodland may once have had a much more open canopy.

Table 7: Crockhamhill Common Compartment 6. Preliminary Woodland Condition Survey

Feature	Description
Woodland Type:	Coniferous woodland.
Habitat Type: e.g. Coppice woodland; Ride; Glade; Wood Pasture:	Plantation.
Species / Structure / Age Class: Key to abbreviations Seedling (SE) Sapling (SA) Semi-established (SET) Established (EST) Mature (MAT) Standard (STA) Shrub layer/Understorey (SL/US) Over mature Veteran (V) Coppice <5 years Scrub height Mature (for species) Percentages where given are rough percentages of that feature	Beech SA 20% Birch SA 20% Oak SA 20% Rowan SA 10% Pine STA 60cms 10%
Ground Flora:	Bilberry occasional, honeysuckle.
Fungi:	None observed.

Decaying Wood:	None observed.
Standing:	
Fallen:	
Invasive Species:	
Deer Damage:	None observed.
Historic Features:	None observed.
General Comments:	Mature conifer plantation grading to mixed native broadleaved woodland possibly over heathland.

Table 8: Crockhamhill Common Compartment 7. Preliminary Woodland Condition Survey

Feature	Description
Woodland Type:	Coniferous woodland.
Habitat Type: e.g. Coppice woodland; Ride; Glade; Wood Pasture:	Plantation.
Species / Structure / Age Class: Key to abbreviations Seedling (SE) Sapling (SA) Semi-established (SET) Established (EST) Mature (MAT) Standard (STA) Shrub layer/Understorey (SL/US) Over mature Veteran (V) Coppice <5 years Scrub height Mature (for species) Percentages where given are rough percentages of that feature	Pine Plantation 80% Birch SA 20% Pine MAT 20%
Ground Flora:	Mature heather.
Fungi:	None observed.
Decaying Wood:	Decaying wood >5%
Standing:	Fallen wood 80%
Fallen:	
Invasive Species:	Rhododendron.
Deer Damage:	None observed.
Historic Features:	None observed.
General Comments:	Coniferous woodland of maturing pines over probable former wood-pasture / heathland type communities with mixed woodland establishing to edge.

Table 9: Crockhamhill Common Compartment 8. Preliminary Woodland Condition Survey

Feature	Description
Woodland Type:	Broadleaved semi-natural woodland.
Habitat Type: e.g. Coppice woodland; Ride; Glade; Wood Pasture:	
Species / Structure / Age Class: Key to abbreviations	Sycamore EST 10% Birch EST 30%

Seedling (SE) Sapling (SA) Semi-established (SET) Established (EST) Mature (MAT) Standard (STA) Shrub layer/Understorey (SL/US) Over mature Veteran (V) Coppice <5 years Scrub height Mature (for species) Percentages where given are rough percentages of that feature	Birch MAT 20cms+ 30% Beech STA 60cms 10% Oak STA 40cms+ 10% Yew MAT 30% Yew SET 30% Yew SA 30%
Ground Flora:	Bluebell occasional.
Fungi:	None observed.
Decaying Wood:	Decaying wood >10%
Standing:	Standing wood 10%
Fallen:	Fallen wood 90%
Invasive Species:	Rhododendron.
Deer Damage:	None observed.
Historic Features:	None observed.
General Comments:	Mixed broadleaved woodland sloping to site boundary and footpath. Oak is the dominant standard with an understorey of establishing yew. In places this grades to beech with yew. Birch is establishing throughout the compartment. Bramble forms the shrub layer with occasional bluebell as ground flora.

Table 10: Crockhamhill Common Compartment 9. Preliminary Woodland Condition Survey

Feature	Description
Woodland Type:	Broadleaved Plantation over dry dwarf shrub heath.
Habitat Type: e.g. Coppice woodland; Ride; Glade; Wood Pasture:	Plantation.
Species / Structure / Age Class: Key to abbreviations Seedling (SE) Sapling (SA) Semi-established (SET) Established (EST) Mature (MAT) Standard (STA) Shrub layer/Understorey (SL/US) Over mature Veteran (V) Coppice <5 years Scrub height Mature (for species) Percentages where given are rough percentages of that feature	Sweet chestnut SA 80% Pine SE 10% Birch SE 80% Birch EST 20% Rowan SE 10% Holly SE 20%
Ground Flora:	Heather, gorse.
Fungi:	None observed.
Decaying Wood:	Decaying wood 5%
Standing:	Fallen wood 100%

Fallen:	
Invasive Species:	Rhododendron.
Deer Damage:	None observed.
Historic Features:	None observed.
General Comments:	Open area of heathland/wooded heath with heather, birch seedlings and rowan seedlings dominant with planted sweet chestnut. Some established birch.

Table 11: Crockhamhill Common Compartment 10. Preliminary Woodland Condition Survey

Feature	Description
Woodland Type:	Broadleaved semi-natural woodland.
Habitat Type: e.g. Coppice woodland; Ride; Glade; Wood Pasture:	Secondary woodland.
Species / Structure / Age Class: Key to abbreviations Seedling (SE) Sapling (SA) Semi-established (SET) Established (EST) Mature (MAT) Standard (STA) Shrub layer/Understorey (SL/US) Over mature Veteran (V) Coppice <5 years Scrub height Mature (for species) Percentages where given are rough percentages of that feature	Sycamore SET 40% Sycamore SA 40% Sycamore STA 20% Birch SET frequent 40% Birch STA 30cms 10% Oak STA 50cms+ 5% Oak STA 30cms+ 20% Rowan SA frequent 20% Scots pine STA 50+cms 5% Holly US 30% Elder SL 5% Yew SET rare 1% Sweet chestnut STA occasional 10% Bramble SL / US frequent Red currant SL / US rare Cherry laurel rare
Ground Flora:	Broad buckler-fern rare.
Fungi:	None observed.
Decaying Wood: Standing: Fallen:	Fallen wood 10%
Invasive Species:	Cherry laurel.
Deer Damage:	None observed.
Historic Features:	None observed.
General Comments:	Secondary woodland dominated by birch and sycamore especially to the western edge of the compartment. Woodland has developed over what may well have been formerly wood-pasture.

Table 12: Crockhamhill Common Compartment 11. Preliminary Woodland Condition Survey

Feature	Description
Woodland Type:	Broadleaved semi-natural woodland.
Habitat Type: e.g. Coppice woodland; Ride; Glade; Wood Pasture:	
Species / Structure / Age Class: Key to abbreviations	Oak STA 30cms+ 20% Yew SET 30%

Seedling (SE) Sapling (SA) Semi-established (SET) Established (EST) Mature (MAT) Standard (STA) Shrub layer/Understorey (SL/US) Over mature Veteran (V) Coppice <5 years Scrub height Mature (for species) Percentages where given are rough percentages of that feature	Rowan SA 10% Beech Coppice 10% Birch EST 40% Rhododendron SL 40%
Ground Flora:	Bramble.
Fungi:	None observed.
Decaying Wood: Standing: Fallen:	Decaying wood >10%
Invasive Species:	Rhododendron.
Deer Damage:	None observed.
Historic Features:	None observed.
General Comments:	Mixed broadleaved woodland with standard oak, some coppice or multi-stemmed beech with birch establishing and competing with establishing yew. The ground flora is sparse with bramble dominant. The ground is sloping generally to the north.

Table 13: Crockhamhill Common Compartment 12. Preliminary Woodland Condition Survey

Feature	Description
Woodland Type:	Mixed woodland – semi-natural.
Habitat Type: e.g. Coppice woodland; Ride; Glade; Wood Pasture:	
Species / Structure / Age Class: Key to abbreviations Seedling (SE) Sapling (SA) Semi-established (SET) Established (EST) Mature (MAT) Standard (STA) Shrub layer/Understorey (SL/US) Over mature Veteran (V) Coppice <5 years Scrub height Mature (for species) Percentages where given are rough percentages of that feature	Sycamore STA 20% Scots pine STA Very MAT 15% Oak STA 30cms dbh+ 20% Oak STA 50cms dbh+ 10% Birch STA 20% Holly SL 15% Rowan SE 10% Rowan SA 12% Hawthorn SA 10%
Ground Flora:	Bramble occasional to 20%
Fungi:	None observed.
Decaying Wood: Standing: Fallen:	

Invasive Species:	Rhododendron.
Deer Damage:	None observed.
Historic Features:	Evidence of previous sand workings.
General Comments:	Mixed woodland with some mature pine. Evidence of previous sand workings.

Table 14: Crockhamhill Common Compartment 13. Preliminary Woodland Condition Survey

Feature	Description
Woodland Type:	Broadleaved woodland – plantation.
Habitat Type: e.g. Coppice woodland; Ride; Glade; Wood Pasture:	Young Plantation.
Species / Structure / Age Class: Key to abbreviations Seedling (SE) Sapling (SA) Semi-established (SET) Established (EST) Mature (MAT) Standard (STA) Shrub layer/Understorey (SL/US) Over mature Veteran (V) Coppice <5 years Scrub height Mature (for species) Percentages where given are rough percentages of that feature	Sweet chestnut SA 80%
Ground Flora:	Not surveyed.
Fungi:	Not surveyed.
Decaying Wood: Standing: Fallen:	Not surveyed.
Invasive Species:	Not surveyed.
Deer Damage:	Not surveyed.
Historic Features:	Not surveyed.
General Comments:	Sweet chestnut plantation. Plantation has been planted over what appears to have potentially been former wood pasture heathland vegetation. Not surveyed in detail, but considered to be similar to Compartment 9.

Table 15: Crockhamhill Common Compartment 14. Preliminary Woodland Condition Survey

Feature	Description
Woodland Type:	Broadleaved semi-natural woodland.
Habitat Type: e.g. Coppice woodland; Ride; Glade; Wood Pasture:	
Species / Structure / Age Class: Key to abbreviations Seedling (SE) Sapling (SA) Semi-established (SET)	Hazel US 20% Ash STA 20% Sycamore SE 20% Sycamore SET 20%

Established (EST) Mature (MAT) Standard (STA) Shrub layer/Understorey (SL/US) Over mature Veteran (V) Coppice <5 years Scrub height Mature (for species) Percentages where given are rough percentages of that feature	Sycamore EST 20% Sycamore MAT 20% Beech pollard 5% Oak pollard 5% Blackthorn SL 20%
Ground Flora:	Bluebells, ivy
Fungi:	None observed
Decaying Wood:	5%
Standing:	Fallen 80%
Fallen:	
Invasive Species:	None observed.
Deer Damage:	None observed.
Historic Features:	None observed.
General Comments:	Broadleaved semi-natural woodland surveyed from the roadside.

3.5 Preliminary Veteran Tree Check

A number of veteran / mature trees or groups of trees were observed within six compartments on the Common. Further details are given in Table 16 below:

Table 16: Crockhamhill Common. Preliminary Veteran Tree Check

Species	Type	Location	Approx DBH	Photo	Comments
Beech	Hedgerow on woodbank. Coppiced. Possibly layed.	Compartment 2 (TN5). To public bridleway from Windmill Bank.		Photo 6	Mature beech boundary trees. Historic hedgerow.
Beech	Multi-stemmed coppice.	Compartment 2 (TN1).		Photo 1	Veteran.
Pine	Very mature multi-stemmed.	Compartment 4 (TN8).		Photo 7	Very mature – possibly veteran.
Beech	Coppice.	Compartment 4 (TN10).	1.5m	Photo 9	Group of veteran beech coppice
Beech	Mature beech.	Compartment 5 (TN21).			Very mature. Insufficient features to suggest veteran status.
Oak	Pollard.	Compartment 10.	1.1m	Photo 10	Veteran.

3.6 Species

Table 17 below provides a summary of the species information obtained as part of the desktop study.

Table 17: Crockhamhill Common. Protected / notable species which either occur within, or have the potential to occur within or close to Crockhamhill Common

Species	Summary of Taxon Interest	Occurrence of protected / notable species on or near site	Status
Vascular Plants	Common supports flora characteristic of woodland and heathland habitats. Records indicate that wooded areas support a few ancient woodland indicator species, although too few to suggest that the woodland is of ancient origin. The relict heathy areas support a suite of species characteristic of acid areas including bilberry, heather, pill sedge <i>Carex pilulifera</i> , tormentil <i>Potentilla erecta</i> and heath bedstraw <i>Galium saxatile</i> .	Bluebell observed during survey visit Bilberry. The Local Wildlife Site file includes a map showing the main areas of bilberry identified during a previous survey carried out in 2004. These areas have been marked on a map and included at Appendix D.	Bluebell: listed on Schedule 8 of the Wildlife & Countryside Act (as amended). Protection is limited to 'sale' only. ²³ Bilberry: County Scarce ²⁴ , being recorded in 29 tetrads (Philp, 2010).
Lower Plants	Bryophytes: The LWS indicates that bryophytes, especially along acid banks, are quite varied. Fungi: The KWT LWS file has a note stating that, "The Common is rich in fungi. A good long list of species including many associated with birch on acid soils have been recorded."	One notable moss – <i>Dicranum majus</i> One notable fungi brown birch-boleto <i>Leccinum scabrum</i>	<i>Dicranum majus</i> considered by Joyce Pitt to be 'rare in Kent'. Brown birch-boleto RedList_GB_post2001-DD.
Birds	KMBRC datasearch has no records directly attributable to Crockhamhill Common. The KWT LWS file has suggested that the Common is likely to be important for its avifauna and the LWS citation highlights the presence of a number of bird species. The most recent LWS monitoring visit (2004) has suggested that the potential bird interest would merit further investigation Unattributed map in KWT LWS file suggests that nightjar was recorded in southern area of Common to East of Hosey Common	Wood warbler ^{+, k, S41} Goldcrest ^k Bullfinch ^{k, S41} Song thrush ^{+, k, S41} Nightjar ^{k, S41}	All species of bird whilst actively nesting are afforded legal protection under the Wildlife & Countryside Act 1981 (as amended). ²⁵ Those species marked with '+' are Red List ²⁶ species; Those species marked with 'k' are Kent Red Data Book species; Those species marked with 'S'41' are Species of Principal Importance (formerly UKBAP Priority Species).

²³ <http://naturenet.net/law/sched8.html>

²⁴ Species recorded in between 1 and 5% of tetrads (Philp, 2010)

²⁵ Further information about the Wildlife & Countryside Act 1981 (as amended) is available at <http://incc.defra.gov.uk/page-1377>

²⁶ Definition included at http://www.rspb.org.uk/discoverandenjoynature/discoverandlearn/birdguide/status_explained.aspx

Species	Summary of Taxon Interest	Occurrence of protected / notable species on or near site	Status
	Road in 1973.		
Bats	Eleven species of bat, of the 15 species recorded in Kent, have been recorded in this area. One maternity roost has been recorded on the Common close to The Warren, with a second recorded at / close to Froghole Farm to the south of the Common. There are also four other bat roosts confirmed close to the southern / eastern northeastern boundaries.	Serotine, Alcahloe, Bechstein's, Brandt's, Daubenton's, Whiskered, Natterer's, Noctule*, Pipistrelle (45kHz), Pipistrelle (55kHz)*, Brown long-eared*	Afforded full legal protection under Schedule 5 of the WCA 1981 (as amended). Also listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2010 ²⁷ and are therefore "European Protected Species". Those species marked with "*" are considered to be Species of Principal Importance in England (formerly UKBAP) ²⁸ .
Badgers	No records for Crockhamhill Common itself; no evidence of badgers were observed during the site walkover, however the Common contains suitable foraging habitat and their intermittent presence should not be discounted.		Badgers and their setts are protected by the Protection of Badgers Act 1992 ²⁹ .
Hazel Dormouse	Unattributed map in KWT LWS file indicates that dormice have been recorded in the area of Crockhamhill Common to east of Hosey Common Road. The KMBRC datasearch includes a number of recent records from Chartwell, located to the east of the Common and the Common and its environs provides habitat opportunities for dormice; their potential ongoing presence should not be discounted.		Afforded full legal protection under Schedule 5 of the WCA 1981 (as amended). Also listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2010 ³⁰ and therefore a "European Protected Species". A Species of Principal Importance in England (formerly UKBAP) and is included on Schedule 5 of the WCA 1981 (as amended) ³¹ .
Reptiles	Adder was recorded most recently on the Common in 2005. There are also several historic records of viviparous lizard and slow-worm dating from 1959. The nearest grass snake observation relates to a sighting in 1999 for Honesland Wood,		All reptile species likely to be encountered at Crockhamhill Common are protected against killing & injury under Schedule 5 of the WCA 1981 (as amended).

²⁷ Further details about the Conservation of Habitats and Species Regulations 2010 is available at <http://jncc.defra.gov.uk/page-1379>

²⁸ <http://webarchive.nationalarchives.gov.uk/20140605090108/http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx>

²⁹ A summary of the Protection of Badgers Act is available at <http://adlib.eversysite.co.uk/adlib/defra/content.aspx?doc=18122&id=18124>

³⁰ Further details about the Conservation of Habitats and Species Regulations 2010 is available at <http://jncc.defra.gov.uk/page-1379>

³¹ Further information about the Wildlife & Countryside Act 1981 (as amended) is available at <http://jncc.defra.gov.uk/page-1377>

Species	Summary of Taxon Interest	Occurrence of protected / notable species on or near site	Status
	<p>approx. 1.43km to the SW.</p> <p>Although most of the reptile records are nearly 60 years old, Crockhamhill Common provides suitable habitat opportunities for supporting reptiles and their continued presence should not be discounted.</p>		
Amphibians	<p>No recent records of amphibians on the Common or within a 2km-radius of the Common. There are several historic records (1959 / 1963) of common frog.</p> <p>The closest recorded great crested newt observation is located at Crockham Park, 2.69km to the SE. There are no ponds within a 1km-radius of the site.</p> <p>KRAG considers that amphibian survey effort in the local area is relatively high, and that the likelihood of common amphibians such as frogs, toad, palmate and great crested newt occurring on the common is 'possible'.</p> <p>Whilst the absence of ponds on site will limit its value for supporting breeding amphibians, individual animals may use the habitats on the Common for sheltering, foraging and/or dispersal and their potential presence should not be discounted.</p>		<p>Great crested newts are afforded full legal protection under Schedule 5 of the WCA 1981 (as amended)³². Also listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2010³³ and therefore a "European Protected Species".</p> <p>Great crested newts and common toads are Species of Principal Importance in England (formerly UKBAP).</p>
Invertebrates	<p>The LWS site file highlights that the invertebrates on Crockhamhill Common have not been investigated and that survey work is recommended as the Common may still support species associated with heathland. There is a record for Cinnabar moth.</p> <p>The KMBRC datasearch has one record attributable directly to the Common – a historic (1965) record for a spider – <i>Gonatium paradoxum</i>. Several butterflies – Wall and small heath have been recorded at</p>	<p><i>Gonatium paradoxum</i>^{N, K}</p> <p>Wall^{S41}</p> <p>Small Heath^{S41}</p> <p>Small Phoenix^{S41}</p> <p>Cinnabar moth^{S41}</p>	<p>Those species marked with an 'N' are considered to be nationally notable i.e. they are estimated to occur within the range of 16 – 100 10km squares.</p> <p>Those species marked with 'S'41' are Species of Principal Importance (formerly UKBAP Priority Species).</p> <p>Those species marked with 'k' are Kent Red Data Book species.</p>

³² Further information about the Wildlife & Countryside Act 1981 (as amended) is available at <http://jncc.defra.gov.uk/page-1377>

³³ Further details about the Conservation of Habitats and Species Regulations 2010 is available at <http://jncc.defra.gov.uk/page-1379>

Species	Summary of Taxon Interest	Occurrence of protected / notable species on or near site	Status
	'Crockham Hill'.		

The KMBRC datasearch also includes records of one non-native vascular plant species - rhododendron *Rhododendron ponticum* - specifically identified as occurring on Crockhamhill Common. Rhododendron is listed on Schedule 9 of the Wildlife and Countryside Act, 1981 (as amended) – it is illegal to ‘plant or otherwise cause to grow in the wild’ species included on Schedule 9. The surveyor recorded cherry laurel in Compartment 10 and buddleja in Compartment 1.

3.7 Identification of Access Issues

Crockhamhill Common is designated as Registered Common Land and has been mapped as Access Land under the Countryside and Rights of Way Act 2000 (Figure 6).

A number of Public Rights of Way cross the Common on both sides of Hosey Common Road. A network of Public Bridleways cross the Common to the west of Hosey Common Road, and skirts the southern edge of the Common to the east of the Road (Figure 7). There are also many informal paths and both walkers and dog-walkers were observed during the walkover survey.



Crockhamhill Common - Access

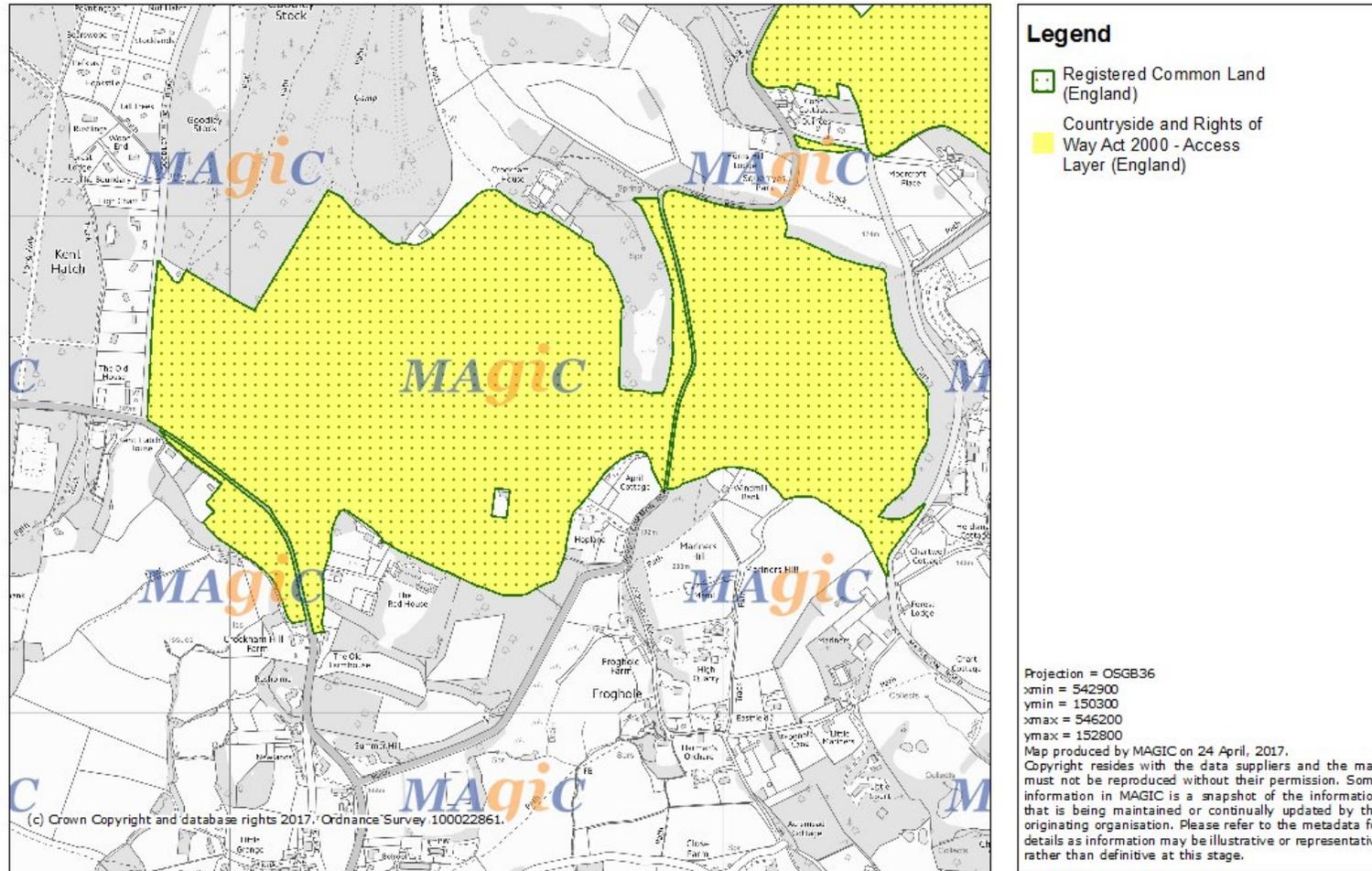
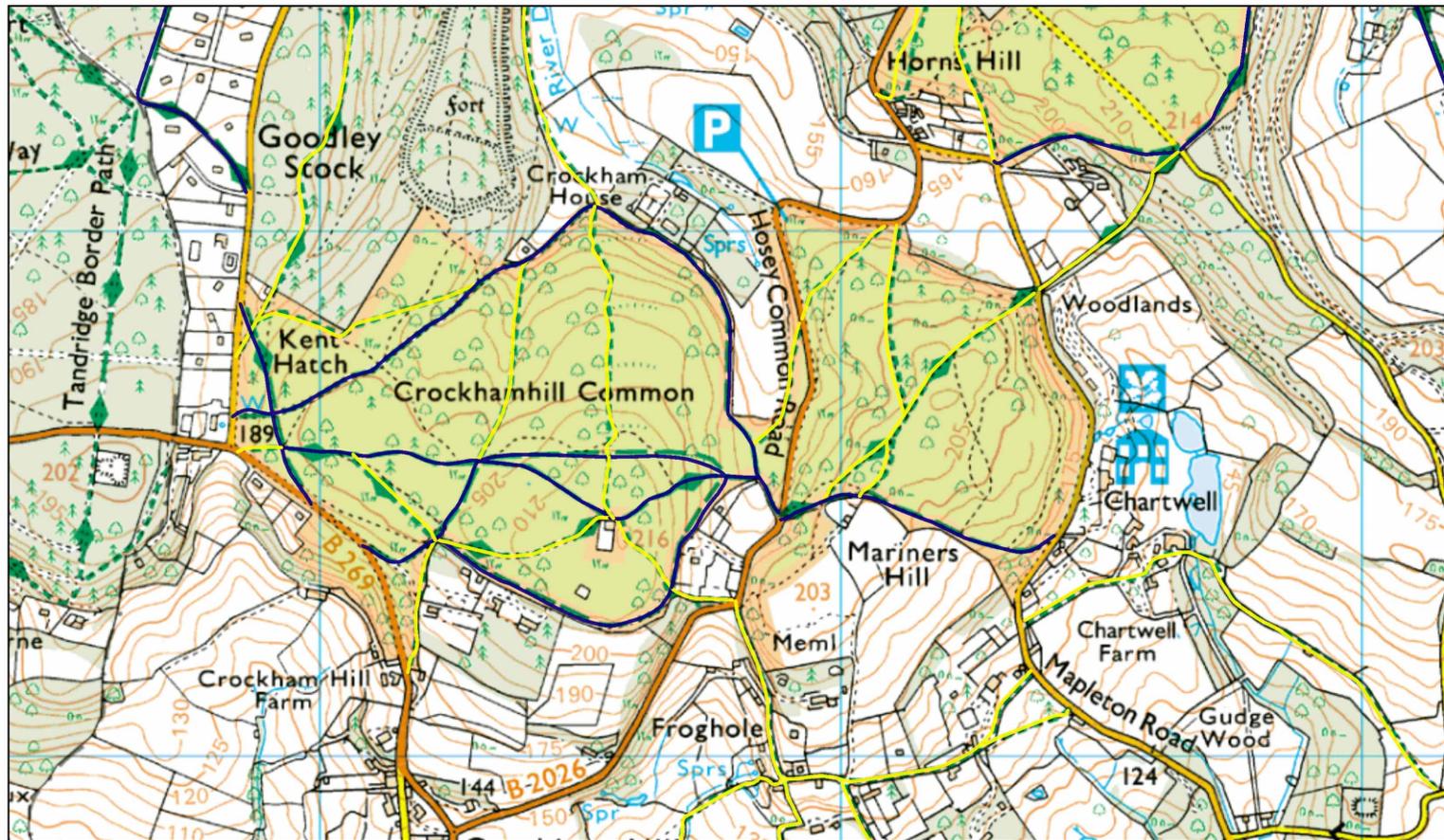


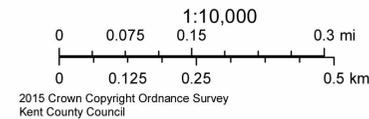
Figure 6: Crockhamhill Common. Access Land

Crockhamhill Common Public Rights of Way



April 24, 2017

- Public Rights of Way**
- Public Footpath
- Byway open to all traffic
- Restricted Byway
- Public Bridleway



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Figure 7: Crockhamhill Common. Public Rights of Way Map

4 ENHANCEMENT OPPORTUNITIES

4.1 Site Evaluation

Crockhamhill Common was found to be dominated by a mosaic of semi-natural and plantation woodland, with fragments of heathy vegetation.

None of the woodland is shown on Natural England's provisional Ancient Woodland Inventory³⁴ although some features identified, such as the presence of woodbanks and veteran coppiced trees, have led the surveyor to conclude that some areas of the site may have a long history of traditional woodland management and / or may have developed from wood pasture as indicated on the Magic website. Indeed, the initial thoughts of the surveyor based purely on the preliminary walkover survey, is that the Common may well have comprised mixed deciduous semi-natural woodland on the lower slopes, with the thinner soils on the hilltop and higher slopes lending themselves to the development / traditional management of a more open wood-pasture / wooded heath habitat.

The broadleaved semi-natural woodland areas are highlighted within the KMBRC data search as comprising mixed deciduous woodland - a Priority Habitat i.e. a habitat listed on Section 41 as a Habitat of Principal Importance in England (formerly UK BAP Priority Habitat), while the Magic website describes the whole site as wood pasture, again categorised as a Priority Habitat, but also included within the 'Lowland Wood-pasture and Parkland' Kent Habitat Action Plan (Plan 16, 2005a).

Wood pasture is generally considered to be a vegetation structure rather than a particular plant community, typically consisting of large, open-grown or high forest trees (often pollards) at various densities, in a matrix of grazed grassland, heathland and/or woodland floras. The value for this priority habitat type comes from the range of specialised and varied habitats found within the landscape. The presence of ancient or veteran trees provide such microhabitats as old bark, dead or decaying wood, holes and splits that support a range of insects, fungi and lichens. The grassland component of the complex is frequently grazed and provides open vegetation and habitat for a variety of plants and animals. Dung from grazing animals adds a further component to the invertebrate and fungal diversity of this habitat. The importance of this complex comes from the long continuity in the management and/or the structure of the land, with very long-lived trees supporting significant amounts of dead and decaying timber (Kent Habitat Survey, 2012).

The vegetation structure at Crockhamhill Common is now much more akin to mature mixed deciduous woodland with a good and near complete canopy structure and a reasonably diverse understorey with some ground flora and a reasonable amount of standing and fallen decaying wood.

Given that both mixed deciduous woodland and wood pasture are Priority Habitats, consideration will need to be given as to whether the Common should continue to be managed as a woodland habitat, or whether a more ambitious project to restore the wood pasture / wooded heath would be feasible. In the latter scenario, management may include

34

<http://www.magic.gov.uk/MagicMap.aspx?chosenLayers=ancwoodIndex,backdropDIndex,backdropIndex,europeIndex,vmlBWIndex,25kBWIndex,50kBWIndex,250kBWIndex,miniscaleBWIndex,baseIndex&box=543327:151447:546668:153876&useDefaultBackgroundMapping=false>

thinning of some of the canopy trees and rotational coppicing of the understorey in order to create 'halos' around some of the mature trees. Ideally grazing would be considered as a tool to create a much more open structure, so important within wood pasture for encouraging the development of flowering plants and shrubs, which provide the nectar and pollen required by the specialist invertebrates whose larvae develop in decaying wood. Without grazing pressure, creation / maintenance of a wood pasture structure is considered unlikely to be achievable here.

A number of veteran / mature trees (Chapter 3.5) were identified during the site walkover, primarily within the broadleaved semi-natural woodland within Compartments 1, 3, 4 and 10, the mixed semi-natural woodland within Compartment 5, and the mixed plantation woodland within Compartment 2. None were considered on a casual inspection to have obvious bat roost potential; however any management to these trees should consider the potential for bat roosts to be present.

The areas of coniferous planting in Compartments 6 and 7 could perhaps best be described as a plantation on former wood pasture / wooded heath, which may well have historically supported dry heath, as witnessed by the presence of relict heathy vegetation (see subsequent paragraphs). Again, consideration should be given to the future of these areas post-harvesting, when there may be opportunities to consider future habitat restoration.

Compartments 9 and 13 both comprise sweet chestnut plantation. In both instances the sweet chestnut has been planted over what appears to have been former wood pasture / wooded heath. The wooded heath habitat within Compartment 9 was considered to be the dominant vegetation type at the time of the site visit, which is why this area is represented as lowland heath within the Phase 1 habitat map (Figure 5). Characteristic heathland species recorded included heather, bracken, gorse and bilberry.

The most recent LWS monitoring visit (2004) commented that the amount of heather was decreasing across the site, possibly as a result of the general increase in tree cover, and it is thought that the distribution of bilberry across the Common is also more restricted than that recorded in 2004 (Appendix D).

Lowland heathland is a rare habitat type in Kent, with the 2012 Kent Habitat Survey suggesting a total of only 71.5ha. It can support many rare and endangered species that are specific to this habitat type including many rare British invertebrates that are at the edge of their European range, as well as species already known to occur at Crockhamhill Common such as adders and other reptiles. There are also historic records of nightjar occurring on the Common.

While many of Kent's heathlands have been lost within the last 75 years – it is susceptible to scrub and tree encroachment through lack of management and over-growth of bracken – there have been a number of restoration projects, including around Bitchet Common (another Common within the Sevenoaks Greensand Commons Project area). In terms of the future of the heathy vegetation at Crockhamhill Common, it is recommended that a series of targeted surveys are undertaken with the aim of establishing the current status of heathy vegetation across the Common. These could be used as the basis for consultation of the long term future / management of these areas.

Ash is a component within the broadleaved woodland areas. Although no evidence of ash dieback was observed during the walkover survey, the Forestry Commission has confirmed that ash dieback disease was confirmed in TQ45 in 2014³⁵. Ongoing monitoring will therefore be required.

Rhododendron was recorded throughout the Common, and was dominant in some areas. It is an extremely invasive species and may form dense, impenetrable thickets with the resulting deep shade and toxic leaf litter suppressing growth of native plants. It is also of limited value to wildlife and may negatively impact some groups e.g. research has shown that bird numbers are lower in mature oak woodlands dominated by rhododendron³⁶. According it is recommended that steps are taken to eradicate or control the spread of rhododendron at this site.

Small amounts of cherry laurel and buddleja were also recorded. Cherry laurel poses problems similar to rhododendron: it is evergreen and shade-tolerant and has adapted well to our climate. It is unpalatable to stock and tends to grow unchecked with the result that in time it will shade out any woodland understorey and prevent woodland regeneration. Conversely, buddleja has wildlife value, providing a valuable source of nectar for a range of invertebrates, particularly butterflies, moths and bees. However, it has few pests and can spread rapidly across a site, where it forms dense thickets, out-competing other more desirable native species. Neither species was noted to be a problem at the moment and, for that reason, it is recommended that the Common should be monitored and appropriate action taken to eradicate or control the spread of these species across the site.

The results of the data search suggest that Crockhamhill Common is of interest for a number of species groups. These include: lower plants – particularly fungi; bats where eleven species have been recorded within the search area, including one maternity roost on the Common; hazel dormouse, with records to the east of Hosey Common Road; and reptiles, with recent records of adder, and historic records of viviparous lizard and slow-worm. The Common has also been identified as being of potential interest for other groups including breeding birds, badgers and invertebrates.

Although the Common is described as rich in fungi, very few species were included within the data search results or within the KWT LWS site file. It is recommended that local experts³⁷ are consulted to provide a more complete picture of the interest of the site, to advise whether additional survey work would be advantageous, and to provide advice on whether any specific management enhancements could be carried out for this species group. The same advice applies to the invertebrates.

For the protected species flagged within Chapter 3.6, it is recommended that survey work should aim to establish the presence / absence of protected species within the Common as their presence would need to be taken into account when planning any management works in order to ensure compliance with all relevant legal obligations with regards to protected species.

³⁵ <http://chalaramap.fera.defra.gov.uk/>

³⁶ www.nonnativespecies.org/downloadDocument.cfm?id=1018

³⁷ Such as Joyce Pitt (Lower plants and botany generally) and Laurence Clemons (Invertebrates)

It is interesting to compare the Google aerial photographs of the Common (Appendix C) dating from 1940 to 2003, as these chart the changes in the proportion of open space / trees. The extensive open areas shown on the 1990 images are presumably a result of the extensive storm damage caused by the 1987 Great Storm.

4.2 Preliminary Habitat Management

4.2.1 Preliminary Habitat Management Suggestions

The objective of this report is to provide a series of outline nature conservation management recommendations aimed at maintaining and enhancing the main habitats and species of nature conservation interest identified within this report. It is anticipated that these initial recommendations will form the basis of additional consultation with the landowners and other stakeholders, prior to the preparation of a bespoke management plan for the Common, which is likely to happen during the delivery phase of this project.

Although outside the strict remit of this report, it was observed that the site includes evidence of historic sand workings. Consideration could therefore be given to further explorations of the historic landuse / archaeology of the site.

Further details are provided below.

4.2.1.1 Management of Existing Woodland / Plantation / Wood Pasture Areas

- Maintain structural diversity as a good variety of woodland and scrub at different ages and structure will be beneficial to species known to inhabit the Common, or which may have the potential to be present, such as breeding birds, invertebrates, mammals such as hazel dormouse and bats, and reptiles.
- Maintain all traditional woodland features such as internal woodbanks.
- Retain all existing veteran / mature trees wherever possible. These are considered to be features of the former wood pasture habitat, and would have traditionally grown in open sunny conditions. Such trees would have supported different invertebrate species from those growing in closed canopy woodland, and ideally there will be a continuum of trees standing in the open, especially mature and ancient trees. This may involve selectively thinning some younger trees in areas where denser woodland is developing.
- Consider opportunities for increasing the number of potential veteran trees by selecting standards for bespoke management which may include pollarding and coronet cuts.
- Maintain a range of both standing and fallen dead wood. A continuity of dead wood at all stages of decay is vital in providing optimal habitats for species groups already highlighted as being of importance within the Common such as fungi and invertebrates, and potentially also roosting bats.

- Maintain and enhance the overall percentage of open areas within the Common. Consider targeting and linking areas already known to have supported a heathy vegetation and the creation of additional linking areas may help to encourage the development of this habitat (see Ch 4.2.1.2). Sheltered and sunny open areas, such as along ride edges, and in scallops or glades, also support a greater abundance and variety of flowering plants and shrubs, providing valuable nectar and pollen sources for invertebrates.
- Consider the preparation of a harvesting extraction plan for the plantation areas. Such a plan could consider the location and management of timber extraction routes together with the long-term plans for the felled areas, looking at opportunities for habitat restoration to, for example, wood pasture / wooded heath. This should also include the young areas of sweet chestnut plantation within Compartments 9 and 13.
- Undertake consultation on whether the introduction of light grazing may be feasible within the Common. This would be pertinent if options for restoration of wood pasture, or heathland restoration were agreed. Grazing can help to maintain a diversity of species and prevent the re-establishment of tree cover. Note that as Common land, any fencing will require permission from the Secretary of State for the Environment.
- Undertake consultation with local residents and users of the site and other stakeholders including Natural England, Kent Bat Group, Kent Ornithological Society, Kent Reptile and Amphibian Group to explore the feasibility of larger scale management of the woodland, which may provide opportunities for species such as nightjar. This may include for example the establishment of an active coppice management regime of the woodland, with large blocks being cleared on a fairly short rotation.
- Rhododendron & Cherry Laurel Eradication / Control. The following recommendations are taken from the Kent Wildlife Trust Woodland Management Advice Sheet relating to the control of rhododendron and cherry laurel³⁸:
 - Cut during the winter (September to March), focussing on older, seedbearing bushes first, and follow up with stump treatment immediately. Seeds dispersal tends to be very low, generally within a few metres of the bush, and research shows that destroying the oldest/core plant is more effective than starting at the edge of the infested area and dealing with younger plants and seedlings.
 - Pull up any seedlings if they come out easily and dig out any plants manually where feasible (don't leave any roots behind)
 - Treat young bushes, any regrowth from stumps and any remaining seedlings with a foliar spray mixed with an adjuvant (this breaks down the

³⁸ http://www.kentwildlifetrust.org.uk/sites/default/files/kwt_land_mgt_advice_sheet_9_-_woodland_management_-_control_of_rhododendron.pdf

waxy layer on the surface of the leaf) between May to October. Research seems to show that these sprays are most effective on younger bushes that are less than 1.3m tall.

- Treat mature bushes with a stem injection treatment, if available. If not, then apply a foliar spray as for other younger bushes.
- Burn the cuttings but make sure you limit the number of fire sites since any bare ground created will result in more sites being available for the seeds to take hold.
- Some removal of toxic leaf litter may be required since nothing else will grow there.
- Buddleja Eradication / Control. Any small seedlings / saplings / young shrubs should ideally be physical removed – ideally by hand pulling, or mechanically digging out, taking care to remove as much of the root system as possible. Any mature plants should be treated by cutting and/or spraying.
- Ash die-back disease. All woodland areas should be monitored annually for the presence of ash dieback and if any disease is found steps should be taken according to the most up-to-date advice available³⁹.

4.2.1.2 Management of Relict Heathy Areas

- In the short – to - medium-term explore opportunities to exploit existing / planned management proposals in order to create linking corridors between existing areas of heathy vegetation. The creation / management of wide ride margins, box junctions, scallops and glades may all encourage the development / spread of heathy / acid-loving vegetation. Such areas will benefit a wide range of species including reptiles, invertebrates and foraging bats.
- In the long-term carry out consultation with local residents and users of the site and other stakeholders including Natural England, Kent Bat Group, Kent Ornithological Society, Kent Reptile and Amphibian Group to explore the feasibility of larger scale heathland restoration.

4.2.1.3 Species

- Fungi. Consult with local experts to build up a comprehensive picture of the importance of this Common for fungi. Establish whether additional survey work would be advantageous and whether there are any specific management projects which would help to further enhance the site for fungi.
- Invertebrates. Consult with local experts to establish whether the Common is likely to be of importance for invertebrates and, if so, whether it would merit specific surveys.

³⁹ <http://www.forestry.gov.uk/forestry/infid-92pjix>

4.3 Additional Survey Work

The ecological scoping survey has highlighted that Crockhamhill Common may be of potential interest for its bird and invertebrate populations, but there appears to be little evidence to support these claims and further survey work is highly recommended. In addition many of the records relating to other groups of interest i.e. reptiles are more than fifty years old, and would benefit from repeat surveys to establish their current status.

A number of surveys are therefore recommended:

- A preliminary, broad brush-stroke NVC survey of the site to establish the main vegetation communities; the results may help to determine the direction of future management.
- Relict heathy vegetation survey to establish the location and extent of all remaining areas of heathy vegetation across the Common.
- Bat Survey. Surveys are recommended in order to establish the bat roost potential of the veteran trees and other mature trees within the Common. Survey work should also establish how bats are using the Common for foraging and for commuting. The results of the survey work should be used to inform management work and the requirement for any EPS licencing.
- Hazel dormouse Survey. To establish presence / absence of dormice within the Common. The results of the survey work should be used to inform management work and the requirement for any EPS licencing.
- Breeding Bird Survey. The aim of the survey should be to establish the importance of the Common for breeding birds.
- Reptile Survey. To establish presence / absence of reptiles (and amphibians) within the Common. The results of the survey work should be used to inform management aimed at enhancing the Common for these species.

5 REFERENCES

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- Waite, A. (Ed). 2000. *The Kent Red Data Book: A provisional guide to the rare and threatened flora and fauna of Kent*. KCC, Maidstone

Appendix A: Photographs taken during the site visits April 2017



1. Compartment 2: Photograph showing veteran beech (TN1)



2. Compartment 2: Photograph showing mixed woodland with both conifer and broadleaved species



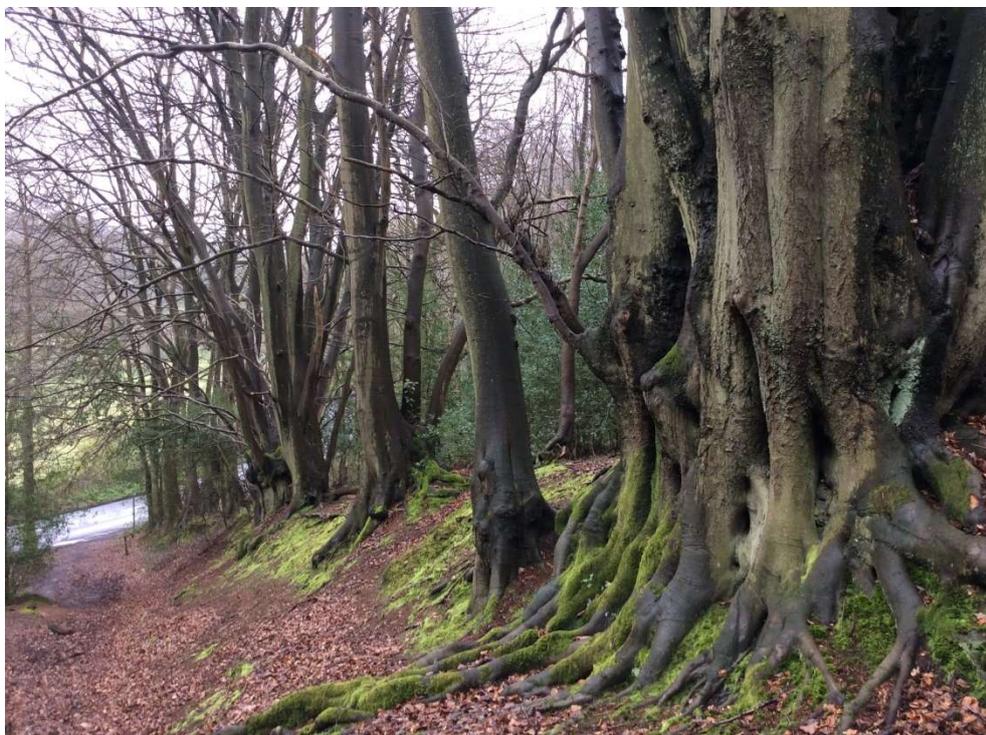
3. Compartment 2: Photograph showing oak standards, with holly and birch



4. Compartment 2: Photograph showing area with signs of historic sand workings (TN3)



5. Compartment 2: Photograph showing Common sloping steeply down to Hosey Common Road (TN4)



6. Compartment 2: Photograph showing line of mature beech boundary trees (TN5)



7. Compartment 4: Very mature and possibly veteran pine (TN8)



8. Compartment 4: Photograph showing mature beech, establishing birch and abundant bluebell



9. Compartment 4: Photograph showing beech coppice veterans (TN10)



10. Compartment 4: Photograph showing linear woodbank running down eastern boundary of compartment (TN11)



11. Photograph showing example of wood pasture / wooded heath habitat occurring within Compartments 6 and 7



12. Compartment 7: General view showing conifer plantation with bracken in the ground flora



13. Compartment 7: Photograph showing general view of hilltop with mature pine and birch. Open ground here was quite acid supporting bracken and bilberry



14. Compartment 8: Photograph showing semi-established yew with beech standards



15. Compartment 8: Photograph showing semi-established yew / beech woodland



16. Compartment 10: Photograph showing veteran oak pollard



17. Photograph showing mature coppiced beech. Compartment 9 is visible in the background



18. Photograph showing relict wooded heath area now colonising with birch



19. Compartment 9: Photograph showing wooded heath area now over-planted with sweet chestnut



20. Compartment 9: Photograph showing newly planted sweet chestnut over wooded heath



21. Compartment 9: Photograph showing close up of wooded heath area, with heather dominant in the ground flora



22. Compartment 10: Photograph showing general view of broadleaved semi-natural woodland



23. Compartment 10: Photograph showing well-established broadleaved semi-natural woodland



24. Compartment 10: Photograph showing mature beech in open woodland with establishing birch developing over probable former wood pasture



25. Compartment 11: Photograph showing general view of compartment



26. Compartment 11: Photograph showing general view of compartment

Appendix B: LWS Citation

SE39 – Crockhamhill Common

Page 1 of 2

KENT LOCAL WILDLIFE SITE

KWT File No.: 446519

Site:	Crockham Hill Common	Site Ref. No:	SE39
LPA:	Sevenoaks	Central Grid Ref:	TQ 446519
Parish:	Westerham	Category:	Woodland
Owner:	Local Authority / Private	Natural Area:	Wealden Greensand
Area:	132.75 ha	AONB:	Kent Downs
First notified:	1986	TPO:	No
Last revised:	2007		
Last approved:	6 Dec 2007		

REASON FOR DESIGNATION

Acidic & neutral woodland with heathy areas. It was once open grazed common land with isolated trees and copses and therefore not on the Ancient Woodland Inventory. However, 23 ancient woodland indicator higher plants were recorded during the latest survey and a good acid bryophyte flora is present. Over 130 fungi have been recorded between 1998 and 2004. The woodland is part of a large block of woodland / heathland extending along the greensand ridge well to the east of Sevenoaks and, with small breaks, almost to Maidstone.

RATIONALE FOR SITE BOUNDARY

The site boundary follows the edge of the common land and associated secondary woodland of Crockham Hill Common and Goodley Stock. Several small roads fall within the boundary for simplicity but are not counted as part of the Local Wildlife Site.

DESCRIPTION

A large area of woodland, parts of which were once open heathland but have now developed into secondary woodland, is situated on the Greensand Ridge south of Westerham. The soils are generally acidic but there are small areas of richer, more neutral soils on lower ground.

Former heathy areas, colonised by birch *Betula* spp., rowan *Sorbus aucuparia* and oak *Quercus* spp. with some whitebeam *Sorbus aria* are developing into High Forest. There are a few areas of oak coppice and mature sessile oaks. Parts of the highest ground on both sides of Hosey Common Road, where the woodland remains more open, support extensive stands of bilberry ¹ *Vaccinium myrtillus* while heather *Calluna vulgaris* is occasional. Former sand workings to the west of the site are another interesting habitat and have a similar flora. Alder buckthorn, which is the food plant of the brimstone butterfly, has been recorded here. The best surviving area of dry heath lies south of The Warren where former acidic grassland has a relict population of heather and bilberry with pill sedge *Carex pilulifera*, tormentil *Potentilla erecta* and heath bedstraw *Galium saxatile*. Bracken *Pteridium aquilinum* is very invasive in this area.

The richer slopes support relict broad-leaf woodland with mature oak and beech with large coppice hazel stools and occasional ash and birch. The ground flora is dominated by bluebell ²



Kent Local Wildlife Site Schedule
© Kent Wildlife Trust

Issued Dec 2007

Hyacinthoides non-scripta or dog's mercury *Mercurialis perennis* and includes wood sorrel *Oxalis acetosella*, moschatel *Adoxa moschatellina*, primrose *Primula vulgaris* and yellow archangel *Lamiastrum galeobdolon*. Pendulous sedge *Carex pendula*, wood pimpernel *Lysimachia nemorum* and guelder rose favour the lower damper ground on the western edge.

Parts of the site have been converted to conifer, chestnut or beech. Sycamore is invading some areas from large mature trees on the boundaries and rhododendron regeneration is also a problem.

A good fungus flora is present and bryophytes, especially along acid banks, are quite varied. *Dicranus majus*, a rare species in Kent, is present.

The site has a good bird fauna. Many birds including wood warbler^{3,4}, nuthatch, goldcrest^{3,5}, great spotted woodpecker, bullfinch^{6,7,8}, song thrush^{6,7,8,9} and grey wagtail³, have been recorded from the area and linnets^{6,8,9} at the near by Chartwell.

Adder² and slow worm² have been recorded within the site and dormouse² has been found at Chartwell. The site is also likely to be good for invertebrates.

- 1 County Scarce. Atlas of Kent Flora. Philp. 1982.
- 2 Protected under the Wildlife & Countryside Act 1981.
- 3 Amber List. Birds of Conservation Concern 2002-7.
- 4 Kent Red Data Book Status 1. Ed. A Waite 2000
- 5 Kent Red Data Book 3. Ed. A Waite 2000
- 6 Priority Species UK Biodiversity Action Plan
- 7 Priority Species Kent Biodiversity Action Plan
- 8 Kent Red Data Book 2. Ed. A Waite 2000
- 9 Red list. Birds of Conservation Concern 2002-7.

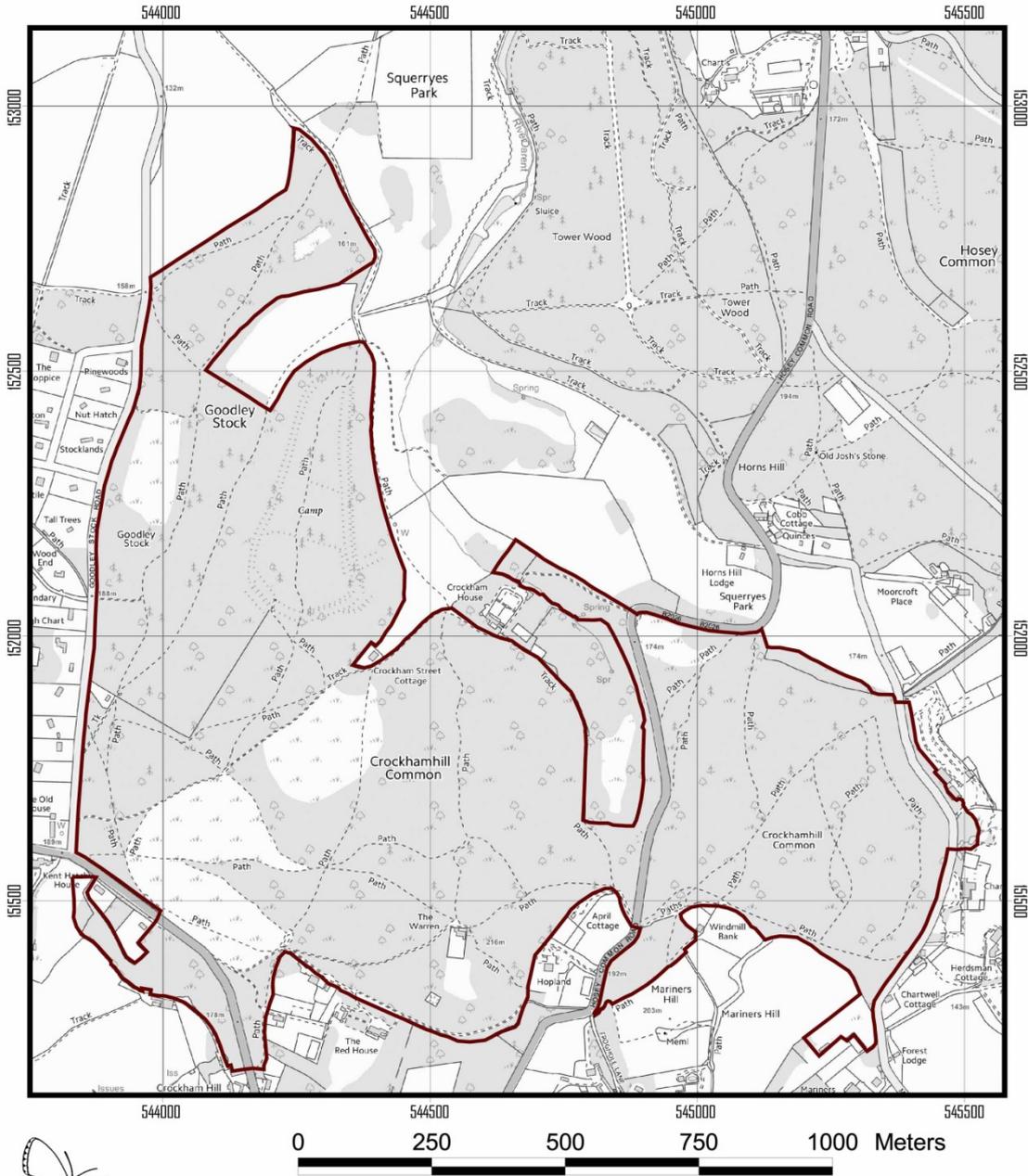


KENT LOCAL WILDLIFE SITE

Site Ref No: **SE39**

Site: **CROCKHAMHILL COMMON ETC.**

Map ref: TQ 446519



Kent Wildlife Trust © 2014

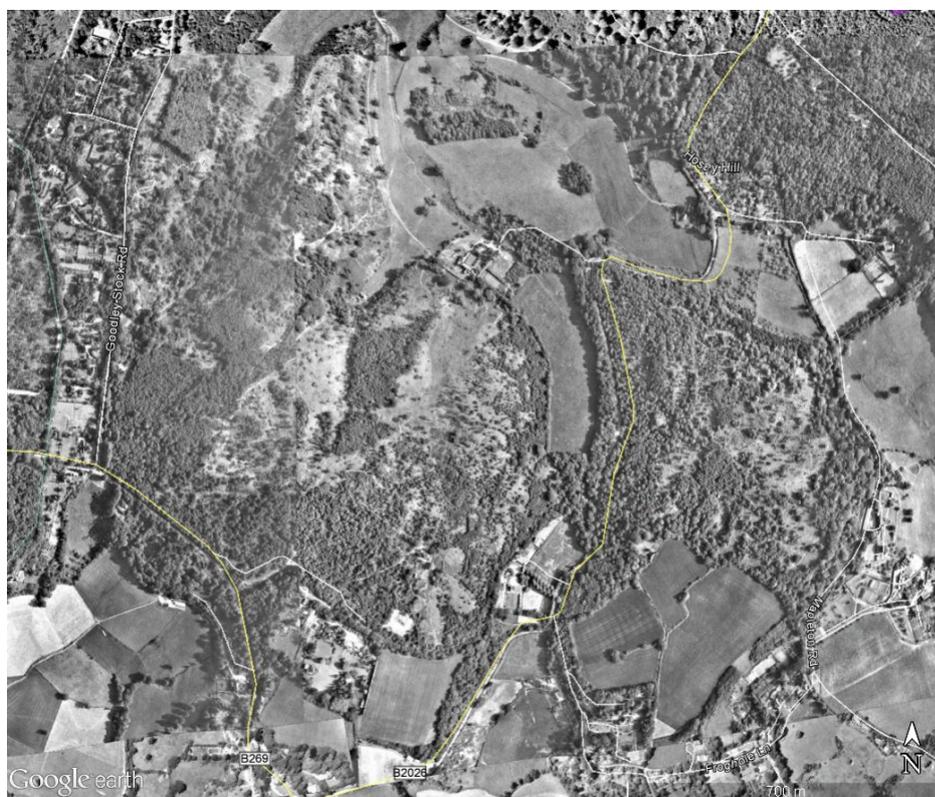
This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. 100019238. 2014.



Appendix C: Google Earth Aerial photographic images 1940 - 2003



Crockhamhill Common - 1940



Crockhamhill Common - 1960



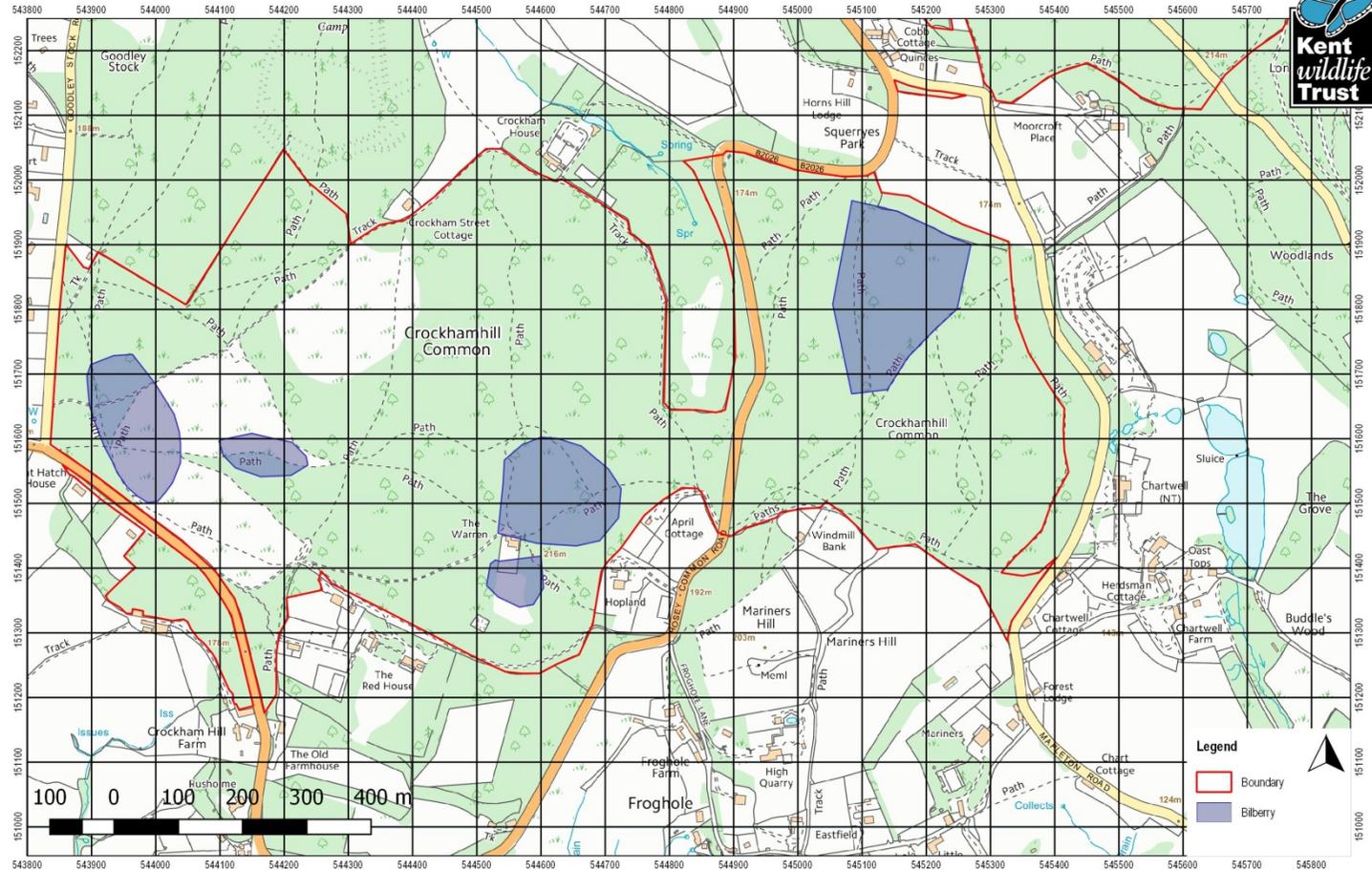
Crockhamhill Common - 1990



Crockhamhill Common - 2003

Appendix D: Informal drawing showing main areas of bilberry identified in 2004

Sevenoaks Greensand Charts and Commons - Crockhamhill Common: Map showing approximate location of main bilberry areas recorded in 2004



© Crown copyright and database rights 2017. Ordnance Survey 100030835. Contains data from Sevenoaks District Council.

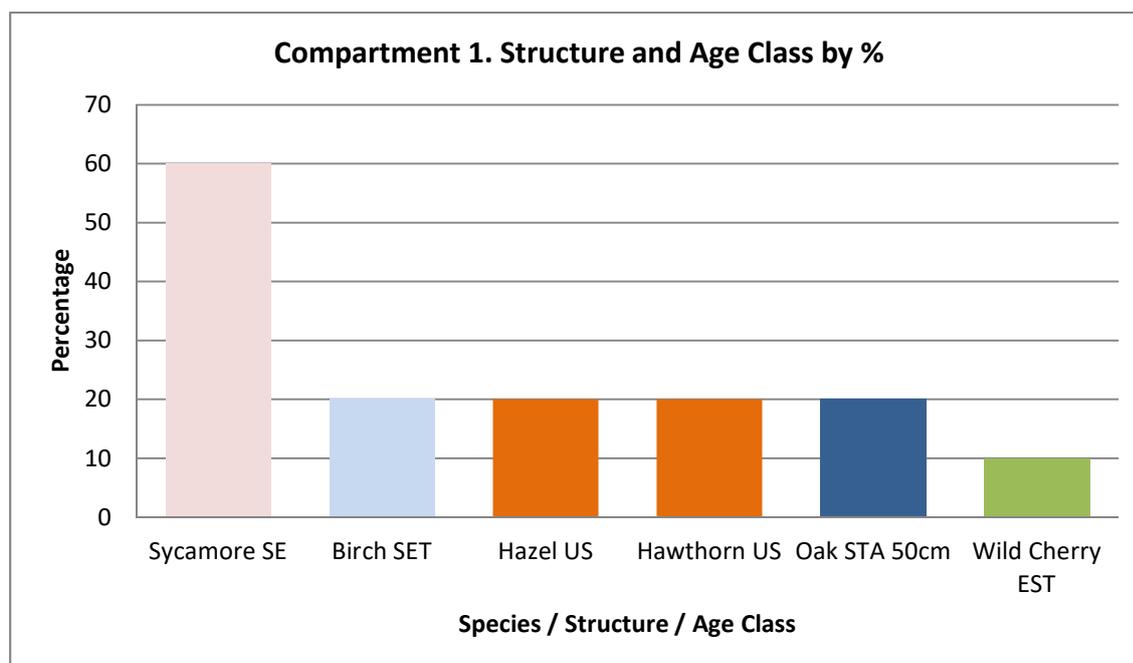
Appendix E: Preliminary Woodland Condition Survey

The Species / Structure / Age Class data presented in tabular format within Chapter 3.4 is represented here in a series of bar charts to better illustrate the current structure of the woodland habitat

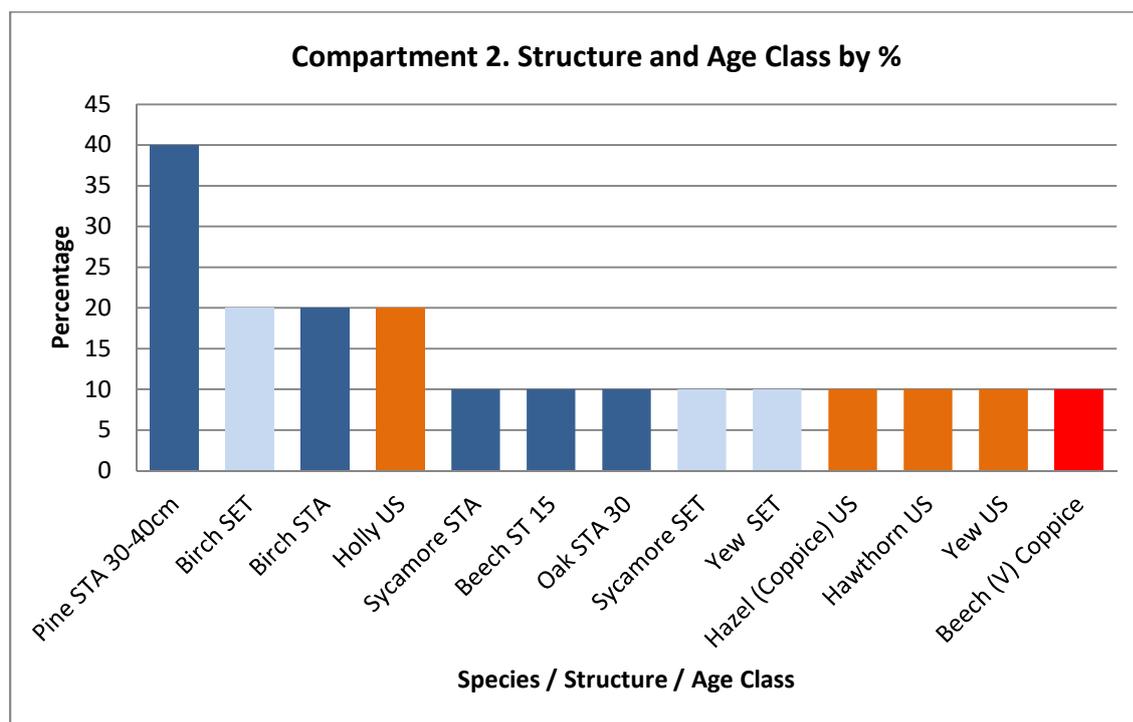
KEY

DBH	Diameter at Breast Height, used with STA & figure e.g. 40cm
EST	Established
MAT	Mature
PLAN	Plantation
POL	Pollard
SA	Sapling
SE	Seedling
SET	Semi-established
SL	Shrub Layer
STA	Standard
US	Understorey
V	Veteran

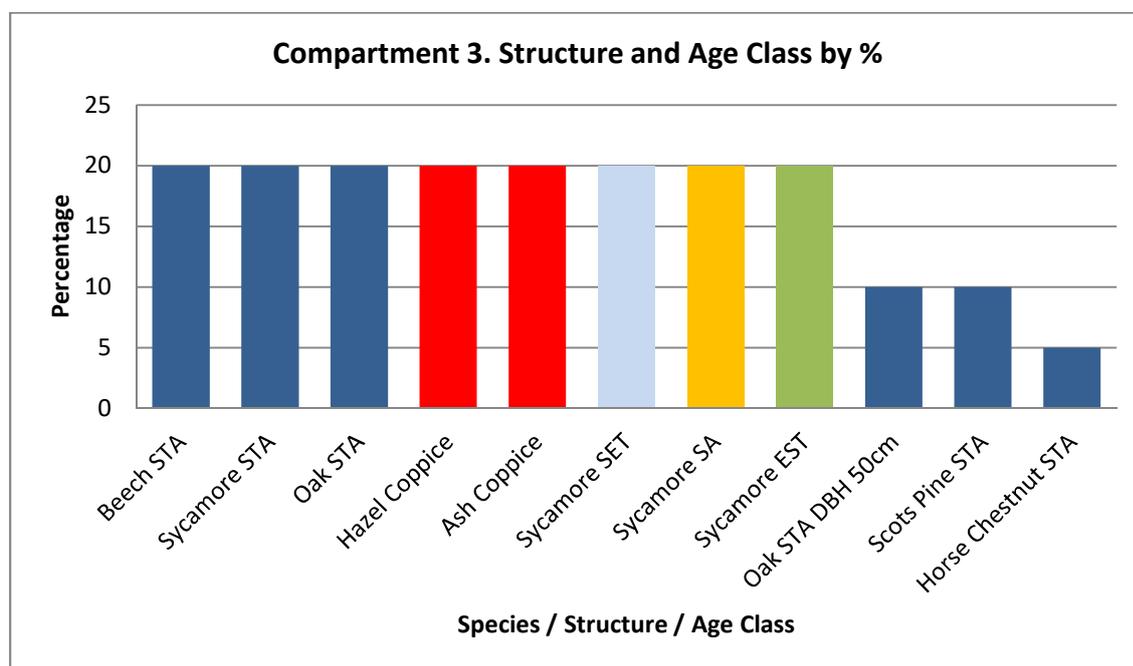
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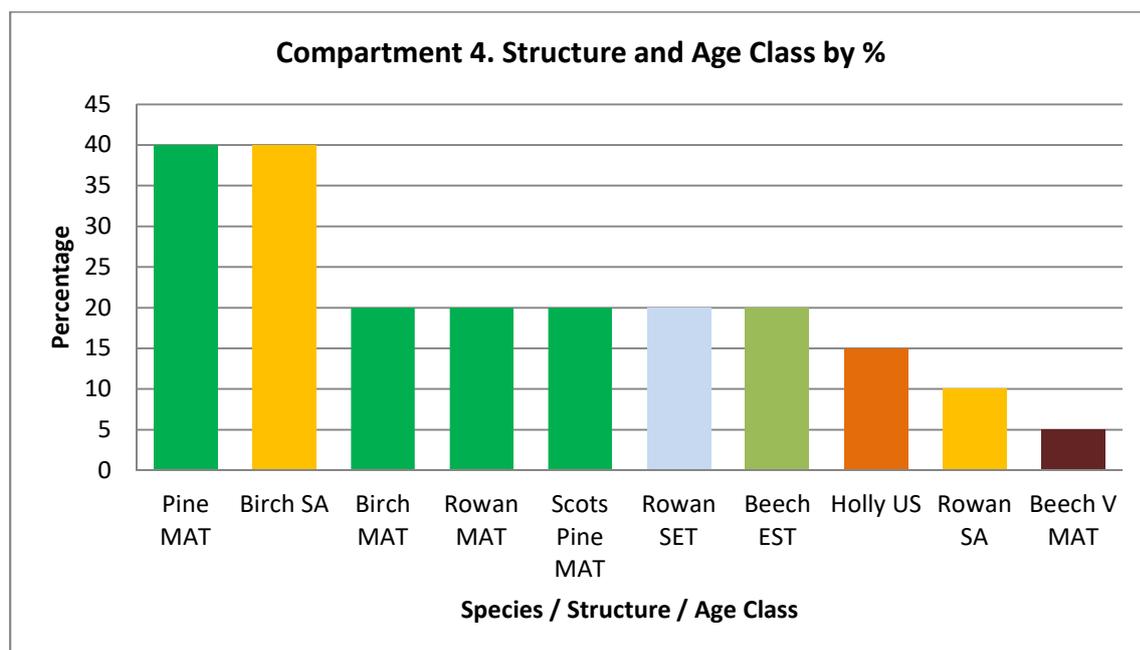
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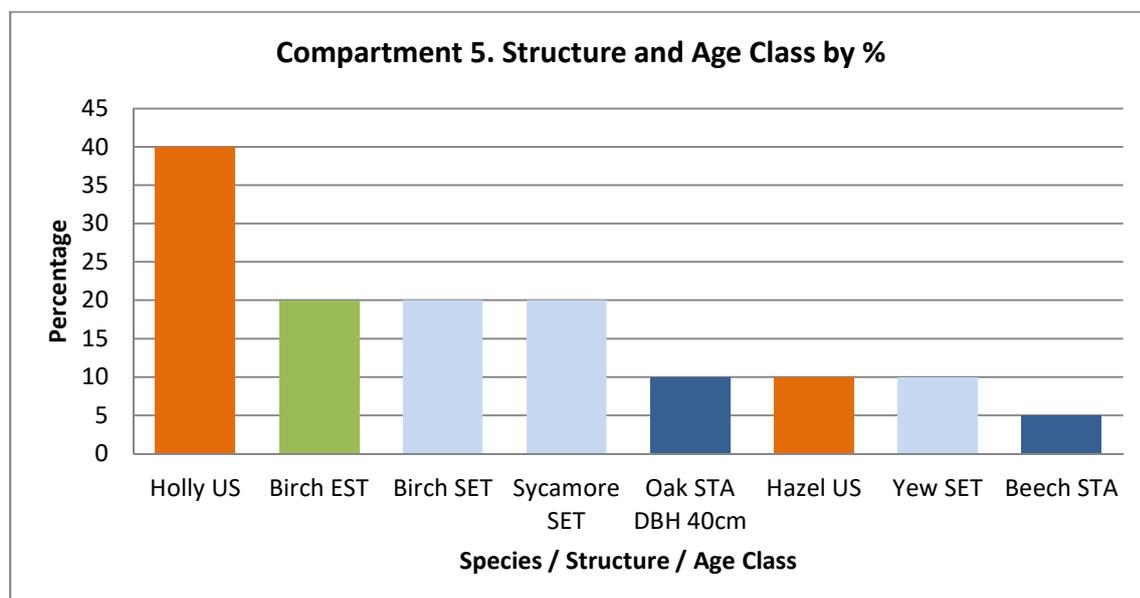
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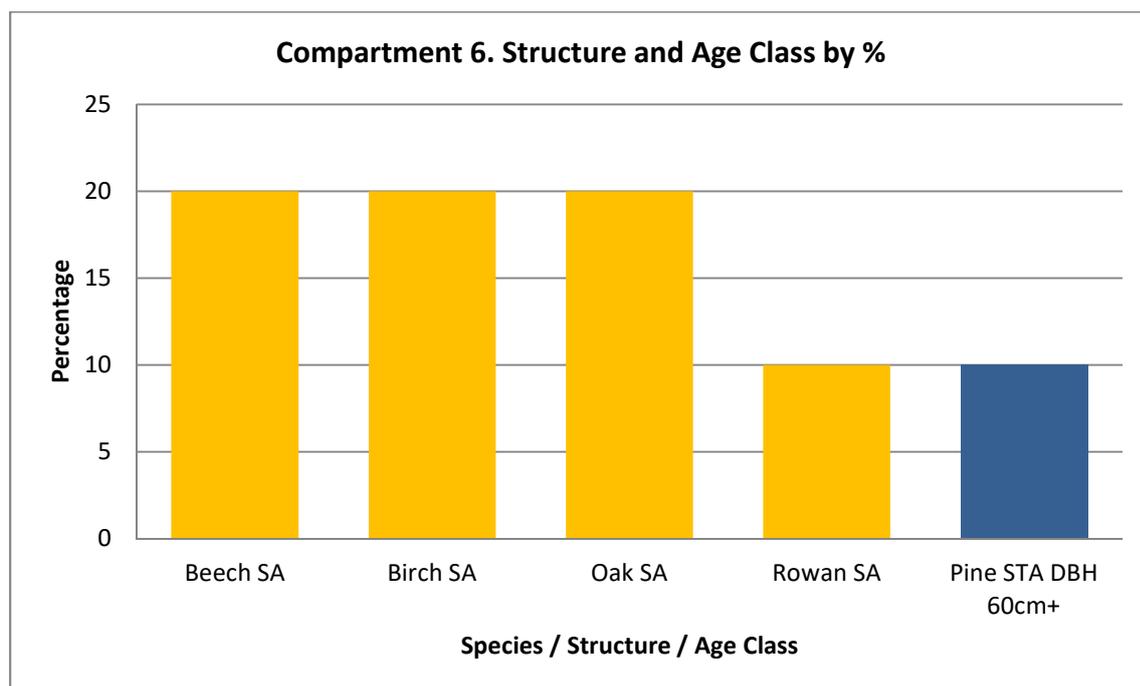
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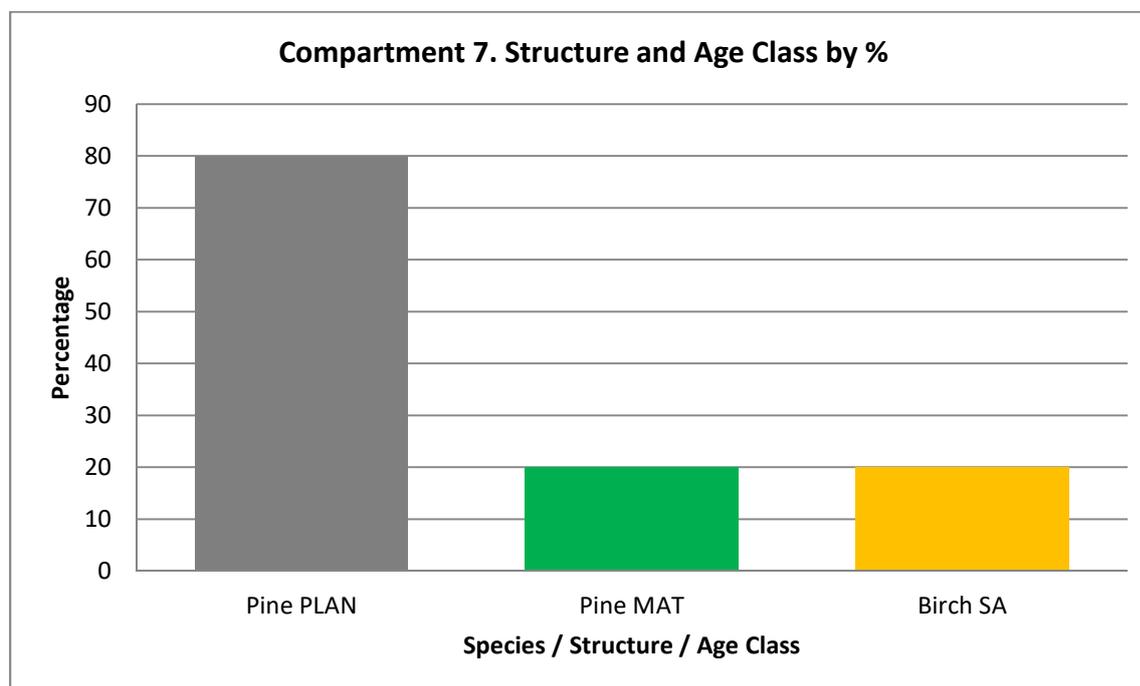
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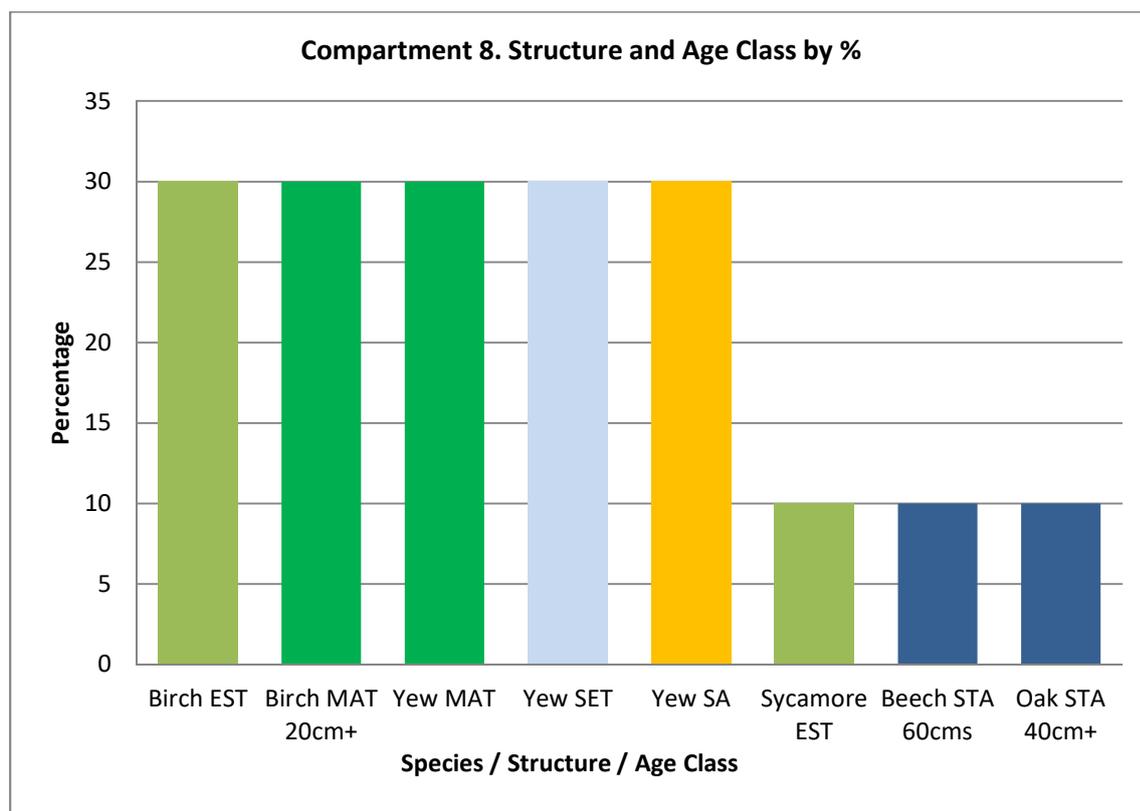
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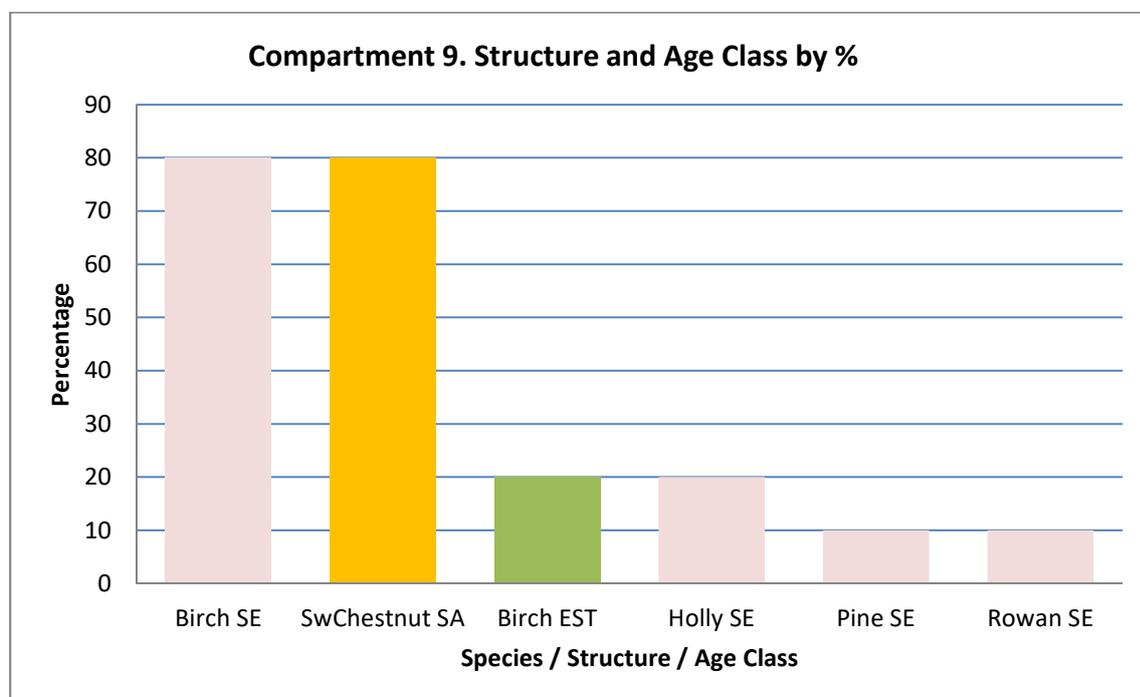
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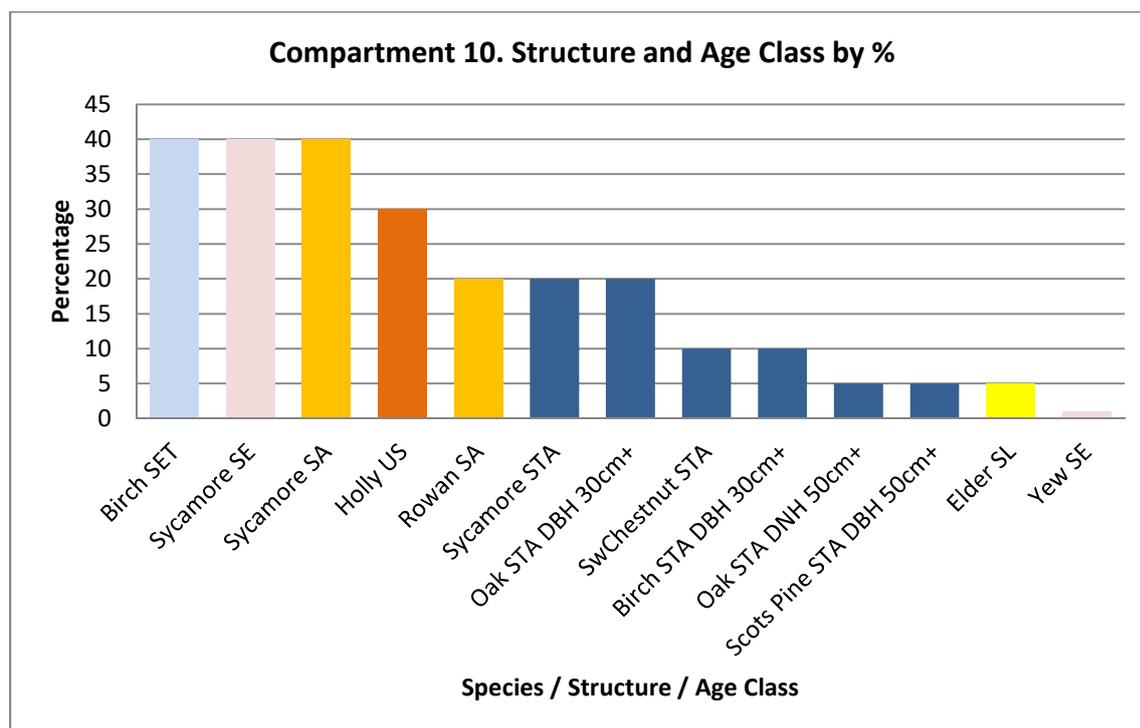
Compartment 8



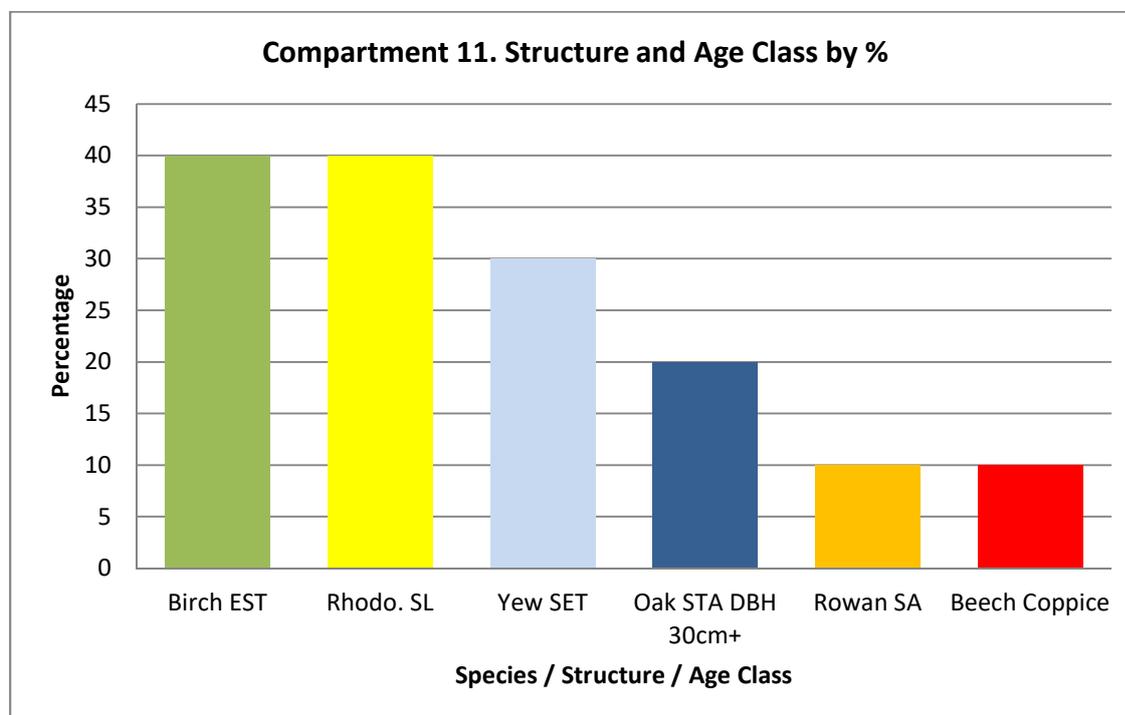
Compartment 9



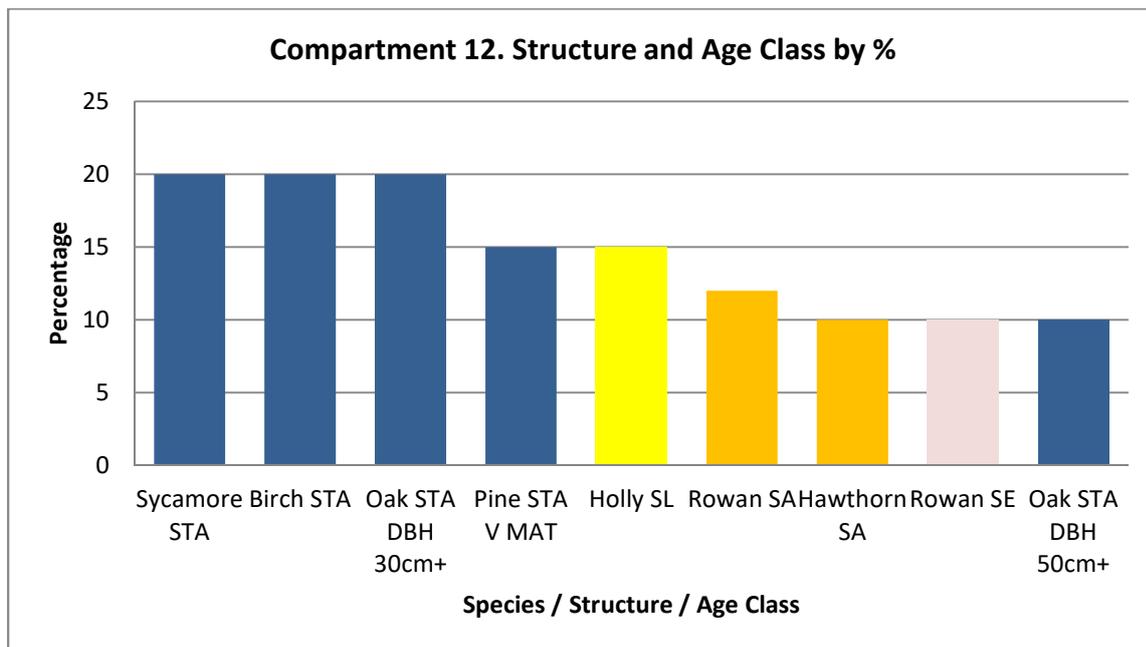
Compartment 10



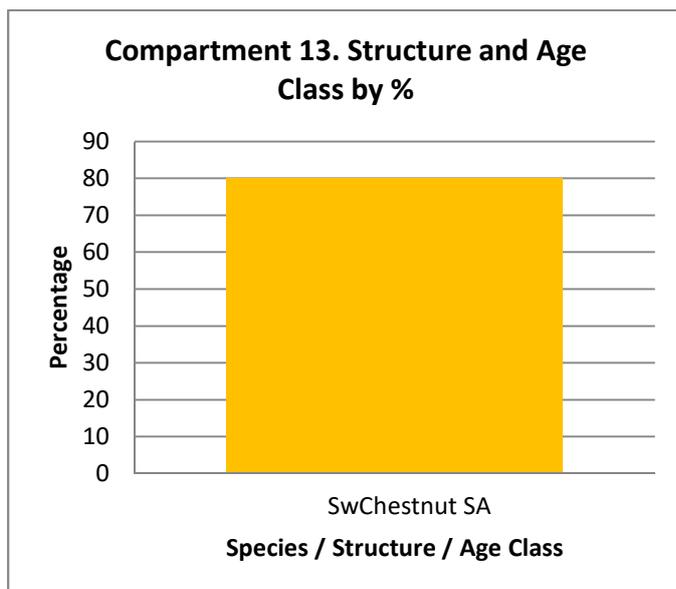
Compartment 11



Compartment 12



Compartment 13



Compartment 14

