# Basic Ecological Survey and Assessment at Marlhill Copse, Townhill Park March 2019

Re: Planning Application 19/00006/TPO

## **REPORT**

Commissioned by local resident G.Narbed

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**Chair and Recording Officer of Southampton Natural History Society** 

Vice-chair of Friends of Peartree Green

7th March 2019

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## **Declaration**

I am an independent, Freelance Ecological Consultant with 21 years experience and an interest outside of work in the conservation of habitats and their Biodiversity.

I have no professional connection with the following organisations:

- Southampton International Airport (hitherto Southampton Airport)
- Forestry Commission
- Southampton City Council

I am also not part of any public or pressure group associated with Marlhill Copse, its access, it's amenities or its wildlife interest.

I am not part of any political party or organisation and I am not, and never have been, a councillor.

I live within the Southampton City Boundary but more than 2km away from Marlhill Copse therefore I will not be affected in any direct way by the proposed works there.

This report, the findings and any opinions expressed are totally independent and based purely on my knowledge, experience and direct observations at Marlhill Copse.



## **Summary**

Marlhill Copse is an area of mixed woodland and arboretum lying on a north-facing scarp within the Southampton City Boundary. The OS grid reference is approximately SU449154. Most of it is

secondary woodland, although some parts may be ancient, and the woodland is not a S.S.S.I (Site of Special Scientific Interest). Marlhill Copse is protected by the Tree Preservation Order (Townhill Park – Cutbush) 1956.

In 2018 Southampton Airport purchased the woodland known as Marlhill Copse from a private owner. Southampton Airport subsequently acquired a felling licence from the Forestry Commission and in January 2019 made a planning application (19/00006/TPO) to Southampton City Council to carry out operations on some trees within Marlhill Copse so as to conform to the aviation safety requirements of the following:

- ICAO (Convention on International Civil Aviation)
- Civil Aviation Act 1982 (UK legislation)
- EASA Commission Regulation (EU) no139/2014

The are various phases to the proposed operation but Phase One of the works is to be conducted as soon as possible and involves felling 27 trees along either side of a permissive path and within the flight corridors south of Southampton Airport. Further works may take place in the future involving the removal of the crowns of some tall trees. These works would be carried out for aviation safety reasons.

Interested parties, especially local residents, are understandably concerned about the nature and scale of the works; the potential impact on wildlife at the previously relatively undisturbed site and also the timing of the works with respect to the life cycles of various species of wildlife that may be present at Marlhill Copse.

Since a decision by the Southampton City Council to grant the works, or otherwise, is expected at a meeting of the Planning Rights of Way Panel at 6pm on Tuesday 12th March. (Reference: <a href="Southampton.gov.uk/moderngov/ieList.Documents.aspx">Southampton.gov.uk/moderngov/ieList.Documents.aspx</a>) time is very short to submit papers.

Given the above circumstances it was felt necessary for myself to meet the representative of the concerned local residents, Mr Gareth Narbed, at Marlhill Copse at quickly as possible so that I could view the site in preparation for this report. A continuation of permissive access on private land was assumed for this visit, therefore it was not thought necessary to seek permission for access. Details of this visit are described below.

#### Introduction

Mr Narbed and I visited Marlhill Copse between 10.30am and 1pm on Friday 1st March. The main purpose of the visit was to identify the 27 trees that are due to be felled as part of Phase

One of the proposed operations. These trees were listed on a photocopied sheet provided by Mr Narbed which showed the latitude and longitude of the locations of the trees as well as the species. These latitudes and longitudes are given in appendix 1 (below).

We walked the length of the permissive track from River Walk to the Gregg School boundary and both sides of the track including the bank and down slope for about 20 metres. I confirmed, or otherwise, the identity of the trees and measured their location as a 10-figure OS grid reference using a hand-held Garmin GPS devise to an accuracy of within 3 metres. The results of these measurements is summarised in table 1 (below). We also observed most of the many other trees that were marked (on the their trunks).

Trees due to felled at Marlhill Copse in 2019				
Northing	Easting	OS Grid Ref	Species	Notes
50.935957	-1.362255	SU4491315375	Western Red Cedar	
50.935957	-1.362255	SU4491415385	English Oak	
50.935957	-1.362255	SU4491115375	Sycamore	
50.935957	-1.362255	Not recorded	Sycamore	
50.935889	-1.362265	SU4490815372	Monterey Pine	
50.935977	-1.362455	SU4489015380	Monterey Pine	
50.936150	-1.362548	SU4487415384	Corsican Pine	
50.936255	-1.362671	SU4488215389	Turkey Oak	
50.936175	-1.362770	SU4485915386	Monterey Pine*	
50.936070	-1.362866	SU4484915385	Monterey Pine*	
50.936131	-1.363021	SU4483515389	Scots Pine*	
50.936189	-1.363081	SU4485915405	Turkey Oak	
50.936310	-1.363153	SU4484415403	Douglas Fir	Actually Sitka Spruce
50.936310	-1.363153	SU4484415403	Sitka Spruce	
50.936152	-1.363575	SU4478015405	Sycamore	
50.936152	-1.363575	SU4478015404	Sycamore	
50.936152	-1.363575	Not recorded	Sycamore	
50.936152	-1.363575	Not recorded	Larch	
50.936162	-1.363841	SU4475615404	Monterey Pine**	
50.936204	-1.364294	SU4475115407	Monterey Pine**	
50.936207	-1.364409	SU4474915403	Corsican Pine**	
50.936211	-1.364495	SU4474515400	Corsican Pine	
50.936211	-1.364495	Not recorded	Corsican Pine	
50.936211	-1.364495	Not recorded	Corsican Pine	
50.936107	-1.364639	SU4474115400	Monterey Pine	Actually Corsican Pine
50.935179	-1.364642	SU4473515399	Monterey Pine	
50.935179	-1.364642	SU4465715347	London Pane	Leaning over path
*Active Badger sett under these trees				
**Trees actually rooted in adjacent gardens so OS Grid Ref not precise				

Various other sources of data were available to Mr Garbed and I, as follows:

- A plan was available to Mr Narbed showing the boundary of the area owned by Southampton Airport and also the boundary of the 5.28ha area covered by the felling licence and the 0.1325ha area selected as marked thinning sample plot. See appendix 1.
- I produced a list of species recorded at Marlhill Copse and available on the Mapmate<sup>®</sup> species records database of the Southampton Natural History Society. See appendix 2.
- A short video was produced by Southampton Airport where a spokesman named Dan
  explains the works to be undertaken at Marlhill and the reasons for doing so. This video
  was very much aimed at justifying the works for public consumption. The video is
  available on YouTube at www.youtube.com/watch?v=C5bcpUiM5bA
- Information available, obtained through research, with regard to the age of the woodland at Marlhill Copse and it's ecological conservation status.

## Findings from the visit and other evidence

#### 1. Tree survey

It proved to be very difficult to identify the exact 27 trees that were due to felled because:

- so many trees were marked in a similar way that there was no way to distinguish between trees that are to be felled, the trees that may have their crowns reduced and trees that are to be untouched but just located and recorded as part of a Woodland Management Plan.
- to add to the confusion the marker inks used were of different colours. According to information obtained by Mr Narbed these different colours are not significant.
- there appeared to be some misidentification's of trees, for example one of the Corsican Pines *Pinus nigra subsp. maritima* was clearly misidentified as Monterey Pine *Pinus radiata*. Also two conifers very close together were identified as Sitka Spruce *Picea sitchensis* and Douglas Fir *Pseudotsuga menziesii* when in fact both proved to be Sitka Spruce. I couldn't find any Douglas Fir in the area.

In the time available I managed to record the OS grid references of 22 trees that were thought to be on the list of those to be felled, although in three cases the trees were located in private gardens just outside the boundary and the grid reference of these are shown in italics in table 1.

An active Badger sett with clear signs of activity in the last 5-10 days at three entrances was evident. These Badgers are likely to be increasing their activity as the season progresses.

All of the tree species are non-native to the UK apart from the one English Oak *Quercus robur* on the list and the great majority of the other marked trees not due to be felled appear to be Sycamore Acer pseudoplatanus. The felling or crown reduction of non-native tree species is less significant from an ecological point of view than doing so to native species. I would question the felling of the English Oak, this being one of the most valuable trees for UK wildlife and I think that it would be more appropriate to consider a crown reduction of this tree depending on its height.

#### 2. Plan of Marlhill Copse Operations

The plan provided to me by Mr Narbed (appendix 1) very clearly shows the relevant ownership and felling licence boundaries. The sample felling plot appears to contain small trees of relatively young age and low importance ecologically. It was easy to identify these boundaries on the site visit of 1st March 2019. This map appears in appendix 1.

#### 3. Species Recorded List

This is the list in appendix 2 and provides evidence of the species diversity of Marlhill Copse. Many of the species found here are associated with damp and cool woodland habitats. There is certainly a rich diversity of birds, certain invertebrate groups, ferns, woodland flowering plants and fungi within the area. Care should be taken not to fell so many trees that there is too much light reaching the woodland floor.

Of particular note *Portevinia maculata*, a species of hoverfly associated with the bulbs of Ramsons (=Broad-leaved Garlic) *Allium ursinum*, occurs at Marlhill Copse in large numbers in May and is not known to occur anywhere else in Southampton. The presence of Badgers is already mentioned above. During the visit on 1st March 2019 a birdwatcher that we met mentioned that Kingfisher nested in the wood last year. There is also at least one Wildlife and Countryside Act Schedule 9 invasive alien plant in the wood, this is the American Skunk Cabbage *Lysichiton americanus*. There is a legal obligation for any landowner to remove this plant.

#### 4. Youtube Video

The main points in this video (not necessarily in the order of the video) and my comments (in italics) where relevant are as follows:

- Marlhill Copse is north of Townhill Park and not south of it as stated in the video.
- The tree works are intended to comply with European airport safety legislation
- 27 trees are to be felled and, in addtion, some crown reductions of trees on the lower slopes of the woodland. There was no further information in the video on how many trees will be affected or which ones may have their crowns reduced.
- Most of the marked trees will not be affected by the works but have been marked to provide data in support of a Woodland Management Plan. *This appears to be good news.*
- There is no possibility of Marlhill Copse being developed. *This is good news*.
- The woodland is recognised as ancient woodland. There is some evidence that supports this statement (see item 5. Age and Conservation Status).
- A transit-size vehicle will be used in the proposed tree-felling operations. *Fortunately the access to Marlhill Copse is good and so this should limit any collateral damage caused by the works.*
- No information about what is happening to the timber. Hopefully most of it will be recovered from site and processed elsewhere but may also an opportunity to create some dead wood habitat as mitigation.
- If necessary the works will be delayed or brought forward so that they can be timed to coincide to seasons when there is less impact on wildlife. This is extremely important and I am pleased that this is acknowledged in the video. Furthermore it is likely that the correct timing of the works may be a legal requirement under the Wildlife and Countryside Act 1981 provisions for breeding birds i.e. that it is unlawful to 'Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built.'(reference: <a href="https://www.rspb.org.uk/birds-and-wildlife/advice/wildlife-and-the-law/wildlife-and-countryside-act/">https://www.rspb.org.uk/birds-and-wildlife/advice/wildlife-and-the-law/wildlife-and-countryside-act/</a>). Felling works in spring or summer would also affect the Badger population and many species of insects and other invertebrates. Tree felling activities should take place outside the bird breeding season i.e. from September to March.

#### 5. Age and ecological conservation status

I have found that Marlhill Copse has no current statutory ecological protection at or above the level of S.S.S.I (Site of Special Scientific Interest), however it is adjacent to the to the Itchen Valley Special Area of Conservation (S.A.C.) and only separated from it by the A27 road (reference: <a href="magic.defra.gov.uk/MagicMap.aspx">magic.defra.gov.uk/MagicMap.aspx</a>). In the short time available to prepare this report I have been unable to establish whether or not Southampton City Council have designated Marlhill Copse a S.I.N.C. (Site of Interest for Nature Conservation). In my opinion the habitat and ecological interest at Marlhill Copse would certainly justify S.I.N.C status.

Reference to the Southampton (Online) Sheet 315 Ordnance Survey One-Inch-to-the-Mile (1895) map (reference: www.oldmapsonline.org/en/Hampshire) shows that there was woodland along the south of the stream and open land north of it suggesting that a large part of Marlhill Copse is at least 125 years old. This is to be expected as I estimated that the Corsican Pines and Monterey Pines were planted at least least 125 to 150 years ago and several other trees look to be a similar age or even a little older than that. Reference to Cory's England, Wales and Scotland Sheet 15-16 map (1794) (reference: www.oldmapsonline.org/en/Hampshire) shows that there is a large block of broadleaved woodland in the West End area with the western limit close to the current location of the Haskins Garden Centre and that most of Marlhill Copse was open land then. There is a part of Marlhill Copse that could be more ancient i.e. in continuous existence since at least before 1700. This is a narrow strip of Alder Alnus glutinosa woodland along the stream. Such a strip of woodland is indicated on the Milne map of Hampshire dated 1791 (<a href="https://www.geog.port.ac.uk/webmap/hantsmap/milne1/mln43f.htm">www.geog.port.ac.uk/webmap/hantsmap/milne1/mln43f.htm</a> )but is not clear on Cory's 1794 map. No older maps could be found that were sufficiently detailed or accurate to contribute to provide further evidence of the age of Marlhill Copse. It is important to note that although most of Marlhill Copse is probably not ancient a timespan of 150 years is more than enough time for a rich diversity of species to build up.

## **Concluding Remarks**

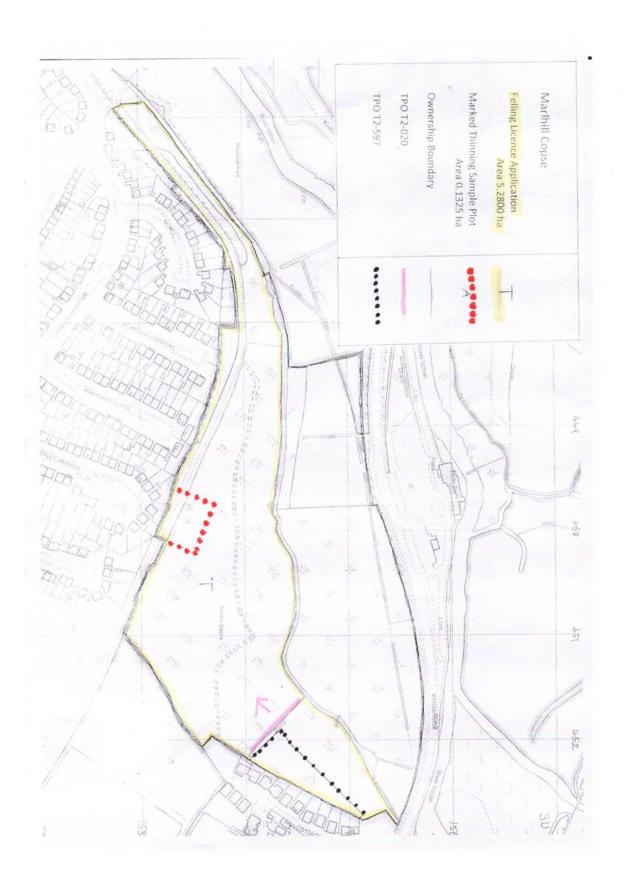
**Summary** 

- Southampton Airport now owns Marlhill Copse and have acquired a felling licence for 13 acres (5.28ha) of the woodland
- Southampton Airport are in the process of applying to Southampton City Council to carry out tree felling work on aviation safety grounds as Marlhill Copse is covered by a TPO (Tree Preservation Order) dated 1956.
- Southampton City Council are due to make a decision on this application on 12th March 2019 (previous applications for tree felling at Marlhill Copse were rejected in 1983 and 2003 G.Narbed per comm.)
- Local residents have objected to the proposed works and as a result I was commissioned by Mr Gareth Narbed to carry out an ecological assessment and produce this report.
- I carried out one site visit on 1st March 2019 and considered various sources of data and evidence so as to inform this report.

#### **Recommendations:**

- I recommend that Phase One of the tree felling is carried out as planned if permission for it is granted by Southampton City Council. Clearly the aviation safety interests are important and have been demonstrated.
- It is very important that the tree felling works are not carried out during the main bird breeding season as birds may nesting any of the trees particularly the conifers.
- The best option, if the tree felling is undertaken, is to wait until September to March to carry out these works. I would strongly advise against conducting any of this work in spring 2019 because there is unlikely to be enough time to complete the works and clear up afterwards before birds start breeding. Since 2019 is an advanced spring following a mild winter birds could already be starting to nest.
- All operations carried out in spring or the autumn months should take place no earlier than 2 hours after sunrise and no later than 2 hours before sunset to minimise disturbance to the Badgers. From November to February this consideration is probably not relevant.
- I recommend that the English Oak has its crown reduced only and not felled.
- Mitigation such as the creation of dead wood habitat should be considered as there will be large volume of timber should these tree felling works be undertaken.
- Further management plans beyond Phase One are unclear and, in the event of further public concern, I would certainly be open to conducting further assessments if requested to do so.

## **Appendix 1**



# Appendix 2

#### Sheet1

#### Marlhill Copse records - SNHS database (unsorted)

Marlhill Copse record	s – SNHS database (uz	isorted)			
Taxon	Vernacular	Gridref	Date	Recorder	Stage
Abortiporus biennis	FUNGUS	SU449154	02/10/0	3 Philip Budd	Not recorded
Acanthosoma haemorrhoidale	Hawthorn Shieldbug	SU451153	02/09/1	0 Philip Budd	Nymph
Adalia decempunctata	10-spot Ladybird	SU450154	05/04/0	5 Philip Budd	Adult
Aelia acuminata	Bishop's Mitre Shieldbug	SU451153	12/06/0	6 Philip Budd	Adult
Aelia acuminata	Bishop's Mitre Shieldbug	SU450155	12/06/0	6 Philip Budd	Not recorded
Aeshna cyanea	Southern Hawker	SU451153	02/09/1	0 Philip Budd	Adult
Allium neapolitanum	Neapolitan Garlic	SU449153	10/05/1	8 Philip Budd	Not recorded
Anatis ocellata	Eyed Ladybird	SU450154	05/04/0	5 Philip Budd	Adult
Aphidecta obliterata	Larch Ladybird	SU450154	05/04/0	5 Philip Budd	Adult
Arbutus unedo	Strawberry-tree	SU450154	30/05/1	1 Philip Budd	Not recorded
Aspitates ochrearia	Yellow Belle	SU451153	02/09/1	0 Philip Budd	Larval
Atractotomus mali	HEMIPPERAN OUG-	SU451153	12/06/0	6 Philip Budd	Adult
Autographa gamma	Silver Y	SU451153	12/06/0	6 Philip Budd	Adult
Botryobasidium aureum	FUNCUS	SU449154	02/10/0	3 Philip Budd	Not recorded
Calocybe gambosa	FUNGUS	SU449154	12/06/1	4 anon	Not recorded
Calvia quattuordecimguttata	Cream-spot Ladybird	SU450154	05/04/0	5 Philip Budd	Adult
Celastrina argiolus	Holly Blue	SU450154	10/05/1	8 Philip Budd	Adult
Celastrus orbiculatus	Staff-vine	SU450154	30/05/1	1 Philip Budd	Not recorded
Ceraleptus lividus	Slender-horned Leatherbug	SU451153	12/06/06 Philip Budd		Adult
Ceraleptus lividus	Slender-horned Leatherbug	SU451153	12/06/0	6 Philip Budd	Not recorded
Chorthippus albomarginatus	Lesser Marsh Grasshopper	SU451153	02/09/10 Philip Budd		Adult
Clitocybe nebularis	FUNGUS	SU450155	20/11/14 Philip Budd		Not recorded
Cochlicopa lubrica	Slippery Moss Snail	SU451153		0 Philip Budd	Adult
Conocephalus discolor	Long-winged Conehead	SU451153	02/09/1	0 Philip Budd	Adult
Coreus marginatus	Dock Bug	SU451153	12/06/0	6 Philip Budd	Adult
Coreus marginatus	Dock Bug	SU451153		0 Philip Budd	Adult
Coreus marginatus	Dock Bug	SU450155	12/06/0	6 Philip Budd	Not recorded
Cyclosa conica	SPINER	SU450154	05/04/0	5 Philip Budd	Adult
Cyphostethus tristriatus	Juniper Shieldbug	SU450154	05/04/0	5 Philip Budd	Adult
Cyphostethus tristriatus	Juniper Shieldbug	SU450155	05/04/0	5 Philip Budd	Adult
Dendrocopos major	Great Spotted Woodpecker	SU450154	30/05/1	1 Philip Budd	Adult
Dolycoris baccarum	Hairy Shieldbug	SU451153	12/06/0	6 Philip Budd	Adult
Dolycoris baccarum	Hairy Shieldbug	SU450155		6 Philip Budd	Not recorded
Elasmostethus interstinctus	Birch Shieldbug	SU450154	05/04/0	5 Philip Budd	Adult
Elasmostethus interstinctus	Birch Shieldbug	SU450155		5 Philip Budd	Adult
Elasmucha grisea	Parent Bug	SU450154	05/04/0	5 Philip Budd	Adult
Elasmucha grisea	Parent Bug	SU450155	05/04/0	5 Philip Budd	Adult
Epistrophe eligans	a hoverfly	SU451153		3 Philip Budd	Adult
Euclidia glyphica	Burnet Companion	SU451153			Adult
Eurygaster testudinaria	Tortoise Shieldbug	SU451153			Adult
Eurygaster testudinaria	Tortoise Shieldbug	SU450155		6 Philip Budd	Not recorde
Exochomus quadripustulatus	Pine Ladybird	SU450154			Adult
Gonocerus acuteangulatus	Box Bug	SU451153			Adult
Halyzia sedecimguttata	Orange Ladybird	SU450154	5		Adult
Harmonia axyridis	Harlequin Ladybird	SU450154		3 Philip Budd	Adult
Helophilus pendulus	a hoverfly	SU450154		3 Philip Budd	Adult
Himacerus boops	HEMIPPERON BUG-	SU451153		10 Philip Budd	Adult
Kalmia latifolia	Mountain-laurel	SU450154		11 Philip Budd	Not recorde
Kleidocerys resedae	HEMIPEFRIN BUG-	SU450154		)5 Philip Budd	Adult
Leptophyes punctatissima	Speckled Bush Cricket	SU451153		10 Philip Budd	Adult
Leptoptyes puncianssima Leptopterna dolabrata	HOMIPTERON BUG	SU451153		06 Philip Budd	Adult

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#### Sheet1

Lophocolea bidentata	Bifid Crestwort	SU449154	05/04/05 Philip Budd	Not recorded
Lysichiton americanus	American Skunk-cabbage	SU450154	30/05/11 Philip Budd	Not recorded
Malachius bipustulatus	Malachite Beetle	SU451153	12/06/06 Philip Budd	Adult
Matteuccia struthiopteris	Ostrich Fern	SU450154	30/05/11 Philip Budd	Not recorded
Myathropa florea	a hoverfly	SU451153	26/05/13 Philip Budd	Adult
Mycena seynesii	FUNCUS	SU450155	20/11/14 Philip Budd	Not recorded
Nomada flava	a cuckoo bee	SU450154	26/05/13 Philip Budd	Adult
Ochsenheimeria taurella	a moth	SU451153	02/09/10 Philip Budd	Adult
Ocypus olens	Devil's Coach-horse	SU449154	27/07/93 Goodall	Adult
Oedemera nobilis	Swollen-thighed Beetle	SU451153	12/06/06 Philip Budd	Adult
Omocestus viridulus	Common Green Grasshopper	SU451153	02/09/10 Philip Budd	Adult
Orthodontium lineare	Cape Thread-moss	SU449154	05/04/05 Philip Budd	Not recorded
Oudemansiella mucida	FUNCUS	SU449154	02/10/03 Philip Budd	Not recorded
Oxyporus populinus	FUNCUS	SU449154	02/10/03 Philip Budd	Not recorded
Pararge aegeria	Speckled Wood	SU450154	26/05/13 Philip Budd	Adult
Paxillus involutus	FUNCUS	SU450155	20/11/14 Philip Budd	Not recorded
Phaeolus schweinitzii	FUNGUS	SU449154	02/10/03 Philip Budd	Not recorded
Philoscia muscorum	WOODLOUSE	SU451153	02/09/10 Philip Budd	Adult
Pisaura mirabilis	Spiper	SU451153	02/09/10 Philip Budd	Adult
Pithanus maerkelii	HEMIPPERMY BUC-	SU451153	12/06/06 Philip Budd	Adult
Platycheirus albimanus	a hoverfly	SU450154	26/05/13 Philip Budd	Adult
Pluteus luteovirens	FUNCO 5	SU449154	02/10/03 Philip Budd	Not recorded
Pluteus semibulbosus	FUNGUS	SU449154	02/10/03 Philip Budd	Not recorded
Poa humilis	Spreading Meadow-grass	SU451153	12/06/06 Philip Budd	Not recorded
Polyommatus icarus	Common Blue	SU451153	02/09/10 Philip Budd	Adult
Polyporus squamosus	FUNCUS	SU449154	30/05/11 Philip Budd	Not recorded
Portevinia maculata	a hoverfly	SU450154	10/05/18 Philip Budd	Adult
Portevinia maculata	a hoverfly	SU450154	26/05/13 Philip Budd	Adult
Regulus regulus	Goldcrest	SU450154	30/05/11 Philip Budd	Adult
Rhodotus palmatus	FUNCUS	SU449154	02/10/03 Philip Budd	Not recorded
Sparassis crispa	FUNGUS	SU449154	02/10/03 Philip Budd	Not recorded
Subcoccinella 24-punctata	24-spot Ladybird	SU451153	02/09/10 Philip Budd	Adult
Tettigonia viridissima	Great Green Bush Cricket	SU450155	01/08/86 Philip Budd	Adult
Tibellus oblongus	SPIPOR	SU451153	02/09/10 Philip Budd	Adult
Vespa crabro	The Hornet	SU449154	07/10/16 Mark Painter	Adult
Xerula radicata	FUNCUS	SU449154	02/10/03 Philip Budd	Not recorded
Xysticus cristatus	SPIDER	SU451153	02/09/10 Philip Budd	Adult