Saproxylic invertebrate scoping survey of Franchises Lodge RSPB reserve, New Forest, Wiltshire

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Fig. 1. *Triplax lacordairii*, Endangered at the European level, found at Tuckers Hat in June.

0 - Summary

Franchises Lodge is a large 386ha woodland site in the New Forest, acquired by the RSPB in 2018. It is predominantly a pine plantation but there is a significant area of Beech/Yew woodland to the south east known as Tuckers Hat, that is designated as SSSI (part of the much larger New Forest SSSI).

The author was commissioned to carry out a three-visit survey of saproxylic invertebrates. Due to COVID-19, the project was postponed until early June. Additionally, a warm and very dry spring meant that 2020 was an advanced season and the author was not able to get to the site until June 4th, after a key period of saproxylic invertebrate activity had passed. Visits in July and September were also made. Large veteran trees, fallen timber, bracket fungi and blossom were all targeted. Additionally, beating foliage was used extensively.

A total of 266 invertebrates were recorded, this is a low total for one of the author's three-visit surveys but is a good total considering the remit was to target deadwood invertebrates. Of these 266 species, 25 of which had some form of conservation status. That is 9.4%, this is higher than the author's mean total for all surveys of 6.0% and this is also directly down to the focus on saproxylic invertebrates, many of which have conservation status. If therefore, a more general survey were carried out, this proportion would likely be much lower.

Perhaps the most significant find of the survey was *Triplax lacordairii* (found to be new to Wiltshire - see figure 1 above). This RDB3 beetle is Endangered at the European level and is usually found in bracket fungi, especially oyster mushrooms as it was here in Tuckers Hat. Also in Tuckers Hat was the discovery of the RDB3 cranefly *Tipula selene*.

A total of eight species were recorded new to Wiltshire and a further three species new to Vice County 8. The non-native bark beetle, originally from North America, *Gnathotrichus materiarius*, was found on the 10th September along the Power Lines. First recorded in 2013 in North Wiltshire and found to be widespread in the New Forest. This can be a pest species on pines.

Around 75 of all species recorded (nearly 30%) could be considered to be saproxylic. Of these, 56 native saproxylic beetles qualify for the Saproxylic Quality Index (SQI). A further six species were added to this total from record held by the RSPB made in 2018 bringing the total of qualifying species to 62. The SQI for the site was found to be 395.16 (ranking it at 98th place nationally) and the Index of Ecological Continuity was 28 (ranked at 95th place nationally).

Analysis using Pantheon shows the site to be in favourable condition for its assemblages associated with deadwood and scrub, while other assemblages lacked enough species to be assessed as in favourable condition. This is not surprising give the focus of the survey.

The site clearly has value for saproxylic invertebrates (and invertebrate in general) but was difficult to work. Much of the interest appears to be clustered around the Tuckers Hat area and management for deadwood invertebrates should be focused around here.

Additional survey visits in April and May are highly recommended. Ideally, interception trapping around Tuckers Hat should be carried out too and a wider invertebrate survey is also suggested.

Management and monitoring recommendations are provided.

1 - Introduction

Franchises Lodge is a large 386ha woodland site in the New Forest, acquired by the RSPB in 2018. It is the RSPB's first site in the New Forest. It is predominantly a pine plantation but there is a significant area of Beech/Yew woodland to the south east (Tuckers Hat). This area is designated as a SSSI, being unit 027 of the much larger New Forest SSSI. The unit was classed as 'unfavourable recovering' when it was last assessed in 2013 by Natural England. A 'high' threat status is assigned to the unit but it was not possible to see what this threat is. There are smaller pockets of SSSI peppered throughout the wood.

There has been limited access to the site for many years and therefore, there are few existing records from the site.

A survey of veteran trees by the RSPB in 2018, highlighted the value of the site for saproxylic invertebrates and a survey of the site was suggested.

The author was commissioned to survey the site over three days in 2020 but with limited time available for microscopic identification. Unfortunately, due to COVID-19, the author was not able to get to the site until 4th June, missing a significant period for saproxylic invertebrates. This was further exacerbated by the spring/early-summer drought which made finding deadwood invertebrates at this site extremely difficult.

2 - Methodologies

On each visit, the methods pertinent to the season were used, being: sweeping, beating, suction-sampling, grubbing, searching flowers, turning logs etc. The focus of the survey was on saproxylic beetles and deadwood but an attempt to find blossom was also made as this is a key way to find saproxylic beetles. In the Tuckers Hat area, peeling back a small amount of bark was necessary on fallen trees and limbs to find beetles. Here, pulling apart bracket fungi was also productive.

A suction sampler was also used on the final visit along the Power Lines and any non-saproxylic invertebrates of note were also recorded when found.

All records were recorded to a generic grid reference at the centre of each compartment (a site centroid). All records will be passed in time to the Wiltshire records centre. Any especially rare species recorded elsewhere on the site were recorded to a higher resolution using an eight-figure grid reference and are mapped in figure 22 below.

The data for the native saproxylic beetles was entered into the Saproxylic Quality Index (SQI) spreadsheet to produce both an SQI and an Index of Ecological Continuity (IEC).

The site was visited on three occasions that were much later than the author would have liked due to COVID-19 and the late start and advanced season. The survey visits were:

- 4th June
- 11th July
- 10th September

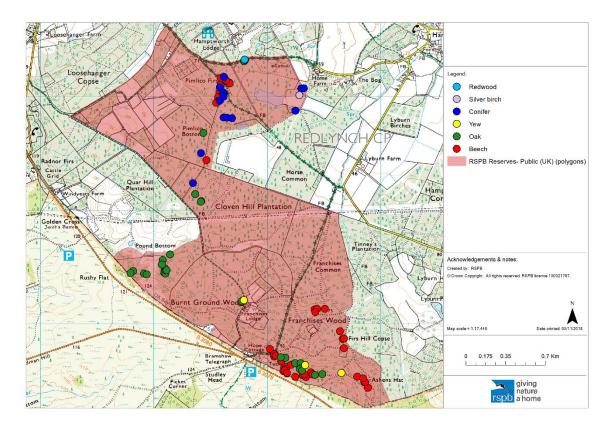


Fig. 2. Map of the site.

Recording

The site sits in the 10 km square SU21 just on the Wiltshire side in vice county 8 (South Wiltshire or VC8), it appears therefore to be quite an unrecorded area of both Wiltshire and the New Forest with a number of species new to Wiltshire recorded in this survey. Conversations with the county recorders suggested that there had been restricted access into the site for decades, meaning next to no recording has been carried out in the wood.

Coverage

With such a large site and limited time, coverage was limited to the southern half of the site, south of the Power Lines with the vast bulk of the saproxylic species recorded in the Tuckers Hat area. Recording saproxylics away from Hawthorn is quite a laborious task, with a great deal of sampling not producing anything, therefore these tasks need to be repeated very frequently to start building up a list. Pound Bottom Wood was investigated during the first visit but was found to be poor for saproxylics and difficult to access with six-foot high Bracken dominating open areas.

One area that does look better for invertebrates is the area consisting of a series of fields and hedgerows near Loosehanger Copse/Pimlico (two of the small meadows here are marked as SSSI units) and an effort to look for beatable Hawthorns in April/May in this area would definitely add to the understanding of the site's saproxylic fauna.

3 - Results

3.1 - Summary of findings

A total of 266 invertebrates were recorded, this is a low total for one of the author's three-visit surveys but is a good total considering the remit was to target deadwood invertebrates. Of these 266 species, 25 of which had some form of conservation status (9.4%). This is higher than the author's mean total for all surveys of 6.0% and this is also directly down to the focus on saproxylics, many of which have conservation status. If therefore a more general survey were carried out, this proportion would likely be much lower. Around 75 of these species (nearly 30%) could be considered to be, in one form or another, saproxylic. Of these, 56 native saproxylic beetles qualify for the Saproxylic Quality Index.

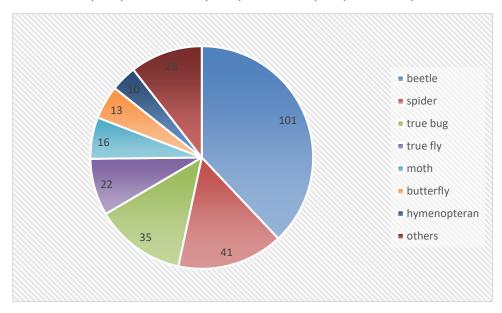


Fig. 3. Breakdown of the invertebrate groups recorded.

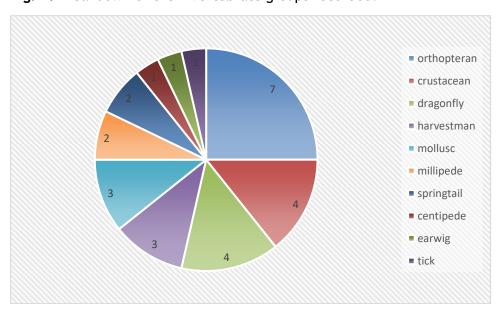


Fig. 4. 'Others' from figure 3 above.

3.2 - Species with conservation status

Conservation status is a complex issue. Each taxonomic group has used a slightly different set of criteria for assessing their species. Within each group, some species are assessed more often or more thoroughly than others. Some are long overdue and as a result there are two systems running at present. Mike Edwards has kindly allowed the author to use this text to explain both systems.

"GB Conservation Status categories are in the process of being upgraded. This means that it is currently necessary to provide values for both systems as not all groups have been dealt with.

The old RDB (Red Data Book) Conservation Status categories were based purely on the number of 10km squares which a species was known to have been recorded from, with a base-line date of 1970. These categories are obviously susceptible to the progressive accumulation of new records over time. This is especially so as, for some species in particular, non-specialist recording has increased significantly. There are also known changes in range and abundance which have been increasingly commented on by specialists.

The old system graded species like this:

- **RDB 1.** Endangered. Species currently (post 1970) known to exist in five or fewer tenkilometre squares.
- **RDB 2.** Vulnerable. Species in severely declining or vulnerable habitats, or of low known populations. Known to exist (post 1970) in ten, or fewer, ten-kilometre squares.
- **RDB 3.** Rare. Species with small populations, not at present Endangered or Vulnerable, but which are felt to be at risk. Species currently known to exist (post 1970) in fifteen, or fewer, ten-kilometre squares.
- **RDB K.** Species of undoubted RDB rank, but with insufficient information for accurate placement; includes possible recent arrivals.

Nationally Scarce. Species currently (post 1970) known to exist in one hundred, or fewer, ten-kilometre squares.

In some groups these are further sub-divided into:-

Nationally Scarce a. Species currently (post 1970) known to exist in thirty, or fewer, ten-kilometre squares.

Nationally Scarce b. Species currently (post 1970) known to exist in thirty-one to one hundred ten-kilometre squares.

The new IUCN-type Red Data Book Conservation Status categories are based on perceived threat, of which distribution is only one part, the other being related to the population trend over the 10 years previous to the assessment, for the species in question. Such trends may be inferred from accumulated specialist knowledge, but, as the quantity and quality of data improves increasing effort is being made to model such changes. The output of such modelling being then compared with the specialist knowledge. Species with a negative trend may not be inherently rare, it is the decline which is the significant factor.

The new system grades species like this (This is very much a summary, there is considerable detail to this, please consult the group-appropriate published Great Britain Red List for a better understanding of how the gradings have been arrived at):

Regionally Extinct (RE). See group-appropriate Red List for criteria. In general, a sufficiently long time has elapsed since the last record of this species.

Critically Endangered (CE). Species with a very severe decline in population trend or geographic range within the area considered.

Endangered (E). Species with a severe decline in population trend or geographic range within the area considered.

Vulnerable (V). Species with a marked decline in trend or geographic range within the area considered.

Near Threatened (NT). Species which are suspected to qualify for Vulnerable, but where the data does no quite support such a category.

Least Concern (LC). Species which show no marked negative population trend or geographic range. Indeed, they may have positive values for either or both.

There will be a number of species where it has been considered that there is insufficient information to provide a supported grading, such species are called Data Deficient (DD). There are also categories for invasive (with anthropogenic agency) species, which are usually assessed as Not Applicable (NA).

The IUCN Red List system was primarily developed for assessing large mammal populations and fish stocks, adapting it for invertebrates is, inevitably, an experimental process and it is to be expected that there will be variability in its application and interpretation between groups. However, each published GB Red List has information on the actual way in which decisions have been arrived at. These should be consulted where necessary.

There is no inherent equivalence between the old and new systems

Great Britain has a considerable environmental gradient from north to south and, to a lesser extent, east to west. Species which are stable in their trend or geographic extent may still be considerably limited by the availability of suitable habitat resources. In order that such species do not get missed from conservation considerations a second, parallel, system of GB scarcity has been developed. This is similar to the old Conservation Status system in that it is based on the number of 10km squares which the species is known from, in a given time period, usually 30 years previous to the date of the assessment.

Categories for this National Scarcity rating are:

NR, with 1-15 10Km occupied squares

NS, with 16 to 100 10Km occupied squares.

Clearly both systems will require periodic revision if they are to remain relevant to the needs of a modern country and the conservation of its fauna."

'Research BAP' was a different tier of BAP which was never meant to have equivalence to the true BAP list. It was targeted at a long list of common but declining moths so that research could be targeted at them to understand their decline. This was rapidly forgotten by consultants and databases so that most consultants will list species on the research BAP (such as Cinnabar) as having the same conservation value as something on the true BAP list. Therefore, no species on the 'Research BAP' are ever given equivalence in the author's surveys and removed from any calculations regarding 'species with conservation status'.

3.2.1 - Saproxylic invertebrates with conservations status

3.2.1.2 - Coleoptera (beetles)

A total of 101 beetles were recorded, with 56 of these being native saproxylics and a further five non-native saproxylic species noted. A total of 14 beetles were found to have conservation status, 12 of which were classed as saproxylic. Throughout this section, the reader is encouraged to cross reference the locations of these records shown in figure 22 below.

Anthocomus fasciatus - Nationally Scarce

A single animal was beaten from Elder blossom, one of the few nectar sources available during the 4th May along the long Power Lines glade.



Fig. 5. Anthocomus fasciatus.

Colydium elongatum - Nationally Scarce

Found on a Beech during the 4^{th} May visit in Tuckers Hat. This elongate beetle is a predator of other saproxylic beetles.



Fig. 6. Colydium elongatum taken at Knepp in 2020.

Diploecoelus fagi - Nationally scarce b

Found on the fallen Beech near the entrance on the 4th June under bark, which is typical for this species.



Fig. 7. Diploecoelus fagi.

Euglenes oculatus - Nationally Scarce

A single female was recorded on the July visit by beating oak foliage in Tuckers Hat. The species develops in red rot of hollow oak trees, a resource that was not observed during the survey.

Hylis olexei - RDB3

A single individual was found near SU23161673 on 11th July, on the same tree that *Thymalus limbatus* and *Tipula selene* were found. The specimen was unfortunately damaged during collection but enough was retained to confirm the identification. The larvae develop in the decaying heartwood of Beech, the only other record the author has of this species is from Ebernoe Common in West Sussex, which has a very similar nature to the Tuckers Hat area.

Phloiotrya vaudoueri - Nationally Scarce, apparently new to VC8

A single adult was beaten from a dead branch on the 2nd visit on the 11th July. Thought to feed in soft dead sapwood of oak and Beech. This the first time the author has encountered this species. This is thought to be new to vice county 8 but not to Wiltshire generally.



Fig. 8. Phloiotrya vaudoueri.

Platypus cylindricus - Nationally Scarce

A single animal was found during the second visit in Tuckers Hat on the 11th June. This species will not retain its status in the coming review. Known as the Oak Pin-hole Borer, its presence is usually given away by small piles of sawdust like frass on fallen oaks.

Silvanus bidentatus - Nationally Scarce

Found on a fallen Beech near the entrance on the 4th June. *Silvanus unidentatus* was also present here. Both species are found under sappy bark of oak and Beech.

Stictoleptura scutellata - Nationally Scarce

One adult was found at the fallen Beech near the entrance on the second visit in July. This species of longhorn is well known from the New Forest.



Fig. 9. Stictoleptura scutellata.

Taphrorychus bicolor - Nationally scarce a

This tiny bark beetle was found on the 11th July in the Tuckers Hat area. This is a fairly frequently encountered bark beetle in the south east, despite its status. It is unlikely to lose this status in the upcoming review. In smaller branches and twigs of Beech and also Hornbeam.

Thymalus limbatus - Nationally Scarce

This beetle was recorded on the first and third visits in Tuckers Hat. It is found beneath loose bark on various broad-leaved trees. The New Forest is approaching the eastern limit of its range in the UK.



Fig. 10. The distinctively shaped *Thymalus limbatus*.

Triplax lacordairii - RDB3, Endangered at European level, apparently new to Wiltshire

Recorded in two close-by locations in the early June visit, where both were beaten from old oyster mushrooms. A wealth of oyster mushrooms were also recorded during the September visit but the number of saproxylic species found then was very low. According to Keith Alexander and Marc Arbuckle, this a new county record. Although the species is well known from the New Forest, it is not known from Wiltshire part.



Fig. 11. One of the *Triplax lacordairii* found in June.



Fig. 12. Fallen Beech where four *Triplax lacordairii* were beaten from an old shrivelled and dry oyster mushroom.

3.2.1.2 - Diptera (true flies)

A total of 22 flies were recorded, five of which were thought to be saproxylic. Two of these were known to have conservation status. Thanks to Alice Parfitt for recording several species during the July visit.

Tipula selene - RDB3

A pupa was found under bark during the first visit and was collected. Within several days, the pupa hatched into an adult cranefly. This is a large and impressive species, which the author has only recorded once before at Ebernoe Common with Mike Edwards, a woodland that has many similarities to the Tuckers Hat part of the site. Interestingly the record happened in exactly the same way with a pupa being found and collected that emerged a few days later. Perhaps this is the best way to record this rare species.



Fig. 13. The impressive female *Tipula selene*.

Xylota abiens - Nationally Scarce

Collected by the author in Tuckers Hat on the 11th July and passed to Alice Parfitt for confirmation. This species is associated with wetter woodland, often with streams and is thought to devlop in Alder and Beech.

3.2.2 - Additional species with conservation status

The following species are not considered saproxylic but are noted here as they have some form of conservation status.

3.2.2.1 - Araneae (spiders)

Of the 41 species recorded, seven were found to have conservation status and three of these were found to be new to Wiltshire.

Hyptiotes paradoxus - Nationally Scarce, new to Wiltshire

This highly charismatic spider is thought to be associated with Yew but this individual was beaten off a lower limb of an oak in dense woodland in Tuckers Hat on the 10th September. It is only the third time the author has encountered this species.



Fig.14. Immature *Hyptiotes paradoxus* was new to Wiltshire.

Evarcha arcuata - Nationally Scarce

Found along the Power Lines on the 10th September. It was found on short vegetation on the edge of the track. Typically associated with heathlands, bogs and *Molinia* but occasionally is found in neutral grassland.

Sibianor aurocinctus - Nationally Scarce, new to Wiltshire

This species of jumping spider is spreading rapidly in the south east, it is now one of the most common jumping spiders the author records. It is thought to be new to Wiltshire. It was found in several places along the Power Lines in September.



Fig. 15. A male Sibianor aurocinctus under the microscope.

Micrommata virescens - Nationally Scarce

A single moribund female was swept from *Molinia* along the main north-south ride from the southern car park to the north east end of the Power Lines on the 11th July. This is one of the authors stock photos of this impressive spider.



Fig. 16. A female Micrommata virescens (photo taken in Sussex).

Nigma puella - Nationally Scarce

A single adult female was recorded along the Power Lines on the 4th June by beating hedgerows. The spider is known from the south east end of Wiltshire but this does appear to be a new 10 km square record.

Araneus angulatus - Nationally Scarce

Immature spiders were recorded in two occasions in dense woodland during the June visit. This distinctive orb weaver appears to be spreading.

Episinus maculipes - Nationally Scarce, new to Wiltshire

A single animal was recorded along the main track north from the car park to the Power Lines on the 4^{th} June.

3.2.2.2 - Coleoptera (beetles)

An interesting *Cassida* with all yellow legs was swept from an isolated patch of Tansy on the western end of the Power Lines, initially identified as the rare *Cassida sanguinolentus*, it is now thought to be a teneral *Cassida rubiginosa*. The reason the suction sampler was deployed on the September visit was to specifically look for this rare beetle but no *Cassida* were recorded.

Agelastica alni (Alder Leaf Beetle) - Nationally Rare, Data Deficient

This species has spread rapidly in recent years and almost certainly no longer warrants the status it has. It is particularly common in Hampshire.

Dromius angustus - Nationally Scarce, apparently new to Wiltshire

A single adult of this arboreal carabid, associated with pines, was beaten from the Power Lines on the 10th September.

3.2.2.3 - Heteroptera (true bugs)

Lygus pratensis - RDB3

This species was recorded at the south western end of the Pylon Ride on the 10th September. This bug is now extremely common and would no longer be assessed as nationally scarce if it were assessed today. It is associated with composites in late summer.

3.2.2.4 - Orthoptera (crickets and grasshoppers)

Wood Cricket (Nemobius sylvestris) - Nationally Scarce

Found to be numerous around the site in July and September. Singing males were heard mainly along the Power Lines and around the southern car park.



Fig. 17. A Wood Cricket, recorded in the car park in September.

3.3 - Some photos of other charismatic deadwood species

Buglife, Back from the Brink and RSPB are all given permission to keep and reuse for any purposes any of the author's photos with the usual credits.



Fig. 18. Black-headed Cardinal Beetle.

The Black-headed Cardinal beetle was once classed as 'nationally scarce b' but is now thought to be common (albeit less common than the Red-headed Cardinal Beetle). The 2020 season was a very early one, and this freshly emerged adult (recorded on the same tree as the four *Triplax lacordairii* were recorded in early June) was probably the last of this species recorded by the author in 2020. The larvae live beneath bark where they are highly predatory.



Fig. 19. Aneurus avenius.



Fig. 20. False Ladybird.

3.4 - Exotica

At least seven non-native species were recorded (2.6%). This is certainly higher than the author's average (currently 2.2%). As five of the seven non-natives recorded were saproxylic, this is almost certainly the reason that such an isolated place away from people would have such a high proportion. At least two of these are associated with pines.

Cis bilamellatus

A single male of this tiny but distinctive Cis was recorded on the 11th July.

Euoprhyum confine

Found in several places in Tuckers Hat on the 4th June.

Orthotomicus laricis

single adult was found beneath pine bark on fallen pines to the north east of the Pylon Ride on the 10th September. It was with *Gnathotrichus materiarius*.

Pycnomerus fuliginosus (apparently new to Wiltshire)

This common non-native saproxylic was found on the 4th June in Tuckers Hat. This and *Euophryum confine* are now two of the commonest deadwood beetles in the UK. It is extremely surprising that this apparently a new record for Wiltshire.

Gnathotrichus materiarius (2nd county record)

Found beneath pine bark on felled pines at the north east end of the Power Lines on the 10^{th} September. This species was only found new to Britain in 2018. It is an invasive species, originally from North America, it initially appeared to be only the second record for Britain. After receiving the paper from Daegan Inward, it was clear this was a wider study on bark beetles spanning a fairly long period from 2013 to 2017. The earliest record for *Gnathotrichus materiarius* in the UK appears to be from 2013 from Hampshire and the beetles was also recorded in Wiltshire at Savernake Forest as early as 2014 but the paper was not published until 2019. Interestingly, there does not appear to be any records from any other sources beyond those listed in this paper in the intervening period.

Two specimens will be passed to the Natural History Museum and various people and bodies informed about the find.



Fig. 21. Gnathotrichus materiarius.

Nysius huttoni

Found at the north eastern end of the big Pylon Ride. This invasives bug likes dry, open and warm places with short swards.

Monacha cantiana (Kentish Snail)

A ubiquitous snail of damp herbage throughout the UK.

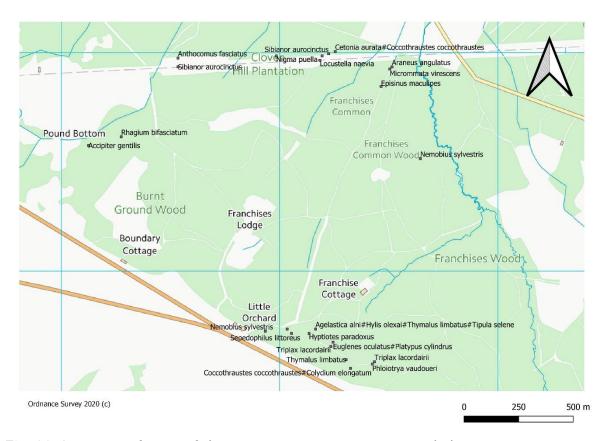


Fig. 22. Locations of some of the more interesting species recorded.

3.5 - Species new to Wiltshire

At least 11 species were thought to be new to vice county 8, eight of which were new to Wiltshire. Seven of these 11 species are considered saproxylic.

Tab. 1. Summary of the species known/thought to be new to Wiltshire and/or VC8.

Order	Species	Cons status	Notes	
Araneae Episinus maculipes		Nationally Scarce	New to Wiltshire	
Araneae Hyptiotes paradoxus		Nationally Scarce	New to Wiltshire	
Araneae	Sibianor aurocinctus	Nationally Scarce	New to Wiltshire	
Coleoptera	Dromius angustus	Nationally Scarce	New to Wiltshire	
Coleoptera	Gnathotrichus materiarius	Non-native	New to VC8	
Coleoptera	Malthodes fuscus		New to Wiltshire	
Coleoptera	Phloiotrya vaudoueri	Nationally Scarce	New to VC8	
Coleoptera	Pycnomerus fuliginosus	Non-native	New to Wiltshire	
Coleoptera	Sepedophilus littoreus		New to VC8	
Coleoptera	Triplax lacordairii	RDB3	New to Wiltshire	
Coleoptera	Xyleborinus saxesenii		New to Wiltshire	

3.6 - Other records

Probable breeding (due to the time of year) **Hawfinch** and **Goshawk** were recorded on the first visit. Hawfinches were recorded in Tuckers Hat on both 4th June and 11th July and were seen flying over the east end of the Power Lines on the 4th June. The female Goshawk was seen and heard fighting with a Buzzard in Pound Bottom to the west of the site.

Grasshopper Warbler on final visit on the 10th September perched on the central pylon along the Power Lines provided the best views the author has ever had of this bird.

Green-cracking Brittlegill Russula virescens

Found under a huge veteran Beech in Tuckers Hat on the 10th September.



Fig. 25. The striking *Russula virescens*.

3.7 - Areas where saproxylic invertebrates were found



Fig. 26. The fallen Beech close to the car park in Tuckers Hat.

Here the tree had produced a canopy gap but being close to a three-way junction, there was more permanent light here. A number of species were recorded here including *Sylvanus unidentatus* and *Stictoleptura scutellata*. This tree was at just the right stage of decay to be extremely productive.



Fig. 27. A clearing with a Beech and an oak snag. *Tipula selene* and *Thymalus limbatus* were recorded here.

The small canopy above was filled with a variety of deadwood but much of it was very old and not extremely productive.



Fig. 28. Colydium elongatum was found under bark of a recently fallen limb.

The impressive Beech in figure 28 above was so big that even when only part of the tree came down, it opened up a large canopy gap. This would be an excellent place to put an aerial interception trap.

3.8 - Saproxylic Quality Index and Index of Ecological Continuity

A minim of 40 species is required to calculate the Saproxylic Quality Index (SQI) and here a total of 56 qualifying native saproxylic beetles were recorded. The SQI was 410.71, this is ranked as 90th place in the UK, between Panshanger Park and Felbrigg Hall Estate. The Index of Ecological Continuity (IEC) was 25, which was ranked at 103.

However, six species were added to the list from data collected in 2018 and held by the RSPB. These were mostly common and low scoring species bringing the SQI down to 395.16 but raising the IEC to 28. Ranking the SQI at 98th place and the IEC at 95th place.

The difference between these two metrics is that the SQI is the mean of the indices (weighted for conservation status) of all species. Therefore, it can go up or down as more species are added but the amount this can go up or down diminishes the more species are on the list. As some statuses are long out of date (and their associated weightings) on the spreadsheet, it's not always that accurate.

The IEC is an accumulative score where only those associated with good quality habitat are assigned an index. Therefore, this score can only go up.

3.9 - Pantheon Analysis

All the invertebrate data was run through BRC's Pantheon data base and the assemblage analysis tool was used to assess the quality of the invertebrate resources present. This is done by counting the number of qualifying species that are present that are assigned to a specific resource and comparing this to a minimum threshold.

Tab. 2. Summary of Pantheon analysis.

Resource	Status	Species	Species with status		
Bark and sap wood	Favourable	44	8		
decay					
Scrub edge	Favourable	13	0		
Fungal fruiting bodies	Favourable	11	1		
Scrub heath &	Favourable	10	1		
moorland					
Heartwood decay	Favourable	7	4		
Rich flower resource	Unfavourable - 2/15	3/15	0		
Epiphyte fauna	Unfavourable - 2/3	2/3	0		
Bare sand & chalk	Unfavourable - 2/19	2/19	1		
Sphagnum bog	Unfavourable - 1/8	1/8	1		

All the resources recorded that were in favourable condition were those associated with deadwood and scrub, which is not surprising given the focus of the survey. All other resources were found to be in unfavourable condition. Additional surveys focusing on the wider invertebrate assemblage are suggested.

4 - Conclusions

Franchises Lodge has a rich saproxylic fauna but there is room for improvement. Firstly, there are still species to be found there and further survey, especially in April and May is needed which was missed due to COVID-19 and the spring drought. Focusing on the northern end around the meadows at this time could well add significantly to the list, especially if there is Hawthorn blossom there.

Secondly, the dark and humid area of Tuckers Hat could be greatly improved by having some permanent open space in the wood. Suggestions on how to achieve this are given below.

5 - Management recommendations

5.1 - Open space

The main limiting factor for the site is the lack of permanent open space, especially close to the large veteran trees in Tuckers Hat. Finding saproxylic beetles was not easy on this site, possibly down to the late start but also in part down to the lack of light in much of the

more interesting part of the woodland. A network of wider rides would provide more permanent open space. As it stands now, much of the interest is associated with semi-permanent open space caused by veteran tree falls or permanent open space that is a long way from the best trees (such as the Power Lines).

A ride should be at least the width of the tallest tree, twice that if possible, but with such tall trees this would be difficult to achieve here. As well as allowing in mor light, it would also help with nectar sources which are also limited.

5.2 - Grazing

Grazing would benefit the wood generally but would not in any way rectify the lack of light here, except perhaps over an extremely long-time scale. Away from Tuckers Hat, much of the woodland has a field layer of Purple Moor-grass, which means that summer-grazing would be needed there. The site is large enough and with enough small meadows that it may be possible to keep a herd of cattle permanently on site, moving between compartments and different habitats throughout the year.

5.3 - Nectar sources

Hawthorn was very scarce on site. This may be a natural feature of these soil types but it certainly has an impact on the fauna. Along the Power Lines, Bramble is widespread but in early June, beating Elder and Alder Buckthorn were the only options and were actually quite productive. The area of hard standing at the eastern end of the Power Lines probably had the most nectar sources of the whole site. The Power Lines area has clearly been quite hard grazed/browsed and care must be taken not to add to this issue. 'Pulse' grazing (harder grazing periods followed by vital pauses in grazing) could help to do this. If the issue is deer in this area then clearly controlling them in some way would help.

5.4 - Deadwood management

The deadwood management of the site appears to be good with very few signs that fallen or standing deadwood has been interfered with beyond the fallen Beech near the car park, which was clearly blocking the track and was pushed back to allow better access.

5.5 - Woodland structure and veteran trees

Much of the woodland is extremely uniform in nature. Many of the veteran Beeches are crowded in by more secondary woodland that has grown up around them. Using the excellent veteran tree inventory, it should not be difficult to highlight trees that are in need of specific work, such as phased halloing, that will help to secure their future. Thought towards future veterans should also be given and provision put in place if necessary, to make sure the next generation of veterans can flourish.

Any significant woodland management of Tuckers Hat will need to be balanced with the bat interest of the site and therefore understanding this in detail should be a matter of urgency.

5.6 - Future monitoring

Additional survey visits in April and May are highly recommended. Ideally, interception trapping around the veteran Beeches at Tuckers Hat could also be carried out and a wider invertebrate survey is also suggested. The site clearly has significant invertebrate interest beyond the saproxylic, and a wider study across the whole site is also suggested. A 'timed count' approach, focusing on a series of compartments with an equal amount of time spent in each compartment, over a number of visits, could work. Compartments could include:

- Northern meadows
- Power Lines
- Tuckers Hat
- Conifer plantation (areas that are marked for felling/grazing or to be left alone could all be selected.

This allows for standardised internal comparisons and also makes for a standardised and easily repeatable survey over time.

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Appendices

Appendix 1 - Saproxylic Quality Index

Appendix 2 - All records

Appendix 1 - Saproxylic Quality Index for Franchises Lodge (2018 records highlighted)

Updated 24 Jan 2004, by Adrian Fowles

Based on 597 species of Coleoptera associated with veteran trees & deadwood habitats.

a.fowles@btinternet.com

	GRID REFERENCE			SOURCE:			DATES:
					T		
	SPECIES	STATUS	SCORE	PRESENCE	INDEX	IEC	RIEC
6	CARABIDAE	1			1		
7	Calosoma inquisitor	H&R3				0	
8	Carabus intricatus	RDB1	32		0		
9	HISTERIDAE	1		· · · · · · · · · · · · · · · · · · ·			
10	Teretrius fabricii	RDB1	32		0		
11	Plegaderus dissectus	В	8		0	0	0
12	Abraeus globosus	L	4		0		
13	Abraeus granulum	Α	8		0	0	0
14	Aeletes atomarius	RDB3	16		0	0	0
15	Acritus homoeopathicus	RDB3	24		0		
16	Paromalus flavicornis	L	2	1	2		
17	Paromalus parallelepipedus	RDB1	32		0		
18	Epierus comptus	RDBK	16		0		
19	PTILIIDAE						
20	Nossidium pilosellum	В	8		0		
21	Ptenidium gressneri	В	8		0	0	0
22	Ptenidium turgidum	RDBK	16		0	0	0
23	Micridium halidaii	RDBK	16		0	0	0
24	Ptiliolum caledonicum	RDBK	16		0		
25	Ptinella aptera	L	2		0		
26	Ptinella denticollis	В	8		0		
27	Ptinella limbata	RDBK	16		0	0	0
28	Pteryx suturalis	L	2		0		
29	LEOIDIDAE						
30	Anisotoma castanea	L	2		0		
31	Anisotoma glabra	L	2		0		
32	Anisotoma humeralis	L	2		0		
33	Anisotoma orbicularis	L	2		0		
34	Agathidium arcticum	RDBK	16		0		
35	Agathidium pisanum (=badium)	RDBK	16		0		
36	Agathidium confusum	RDBI	24		0		
37	Agathidium nigrinum	L	2		0		
38	Agathidium nigripenne	L	2		0		

39	Agathidium rotundatum	L	2		0		
40	Agathidium seminulum	L	2		0		
41	Agathidium varians	L	2		0		
42	Nemadus colonoides	L	2		0		
43	SCYDMAENIDAE						
44	Eutheia formicetorum	RDB1	32		0	0	0
45	Eutheia linearis	RDB1	32		0	0	0
46	Neuraphes plicicollis	В	8		0		
47	Stenichnus bicolor	L	4		0	0	0
48	Stenichnus godarti	RDB3	24		0	0	0
49	Microscydmus minimus	RDB3	24		0	0	0
50	Microscydmus nanus	RIEC2					0
51	Euconnus pragensis	RDB1	32		0	0	0
52	Scydmaenus rufus	RDB2	24		0	0	0
53	SCAPHIDIIDAE	1	_				1
54	Scaphisoma agaricinum	L	2		0		
55	Scaphisoma assimile	RDBI	24		0		
56	Scaphisoma boleti	В	8		0		
57	Scaphidium quadrimaculatum	L	2		0		
58	STAPHYLINIDAE	1				· · · · · · · · · · · · · · · · · · ·	
59	Megarthrus hemipterus	Α	16		0		
60	Phyllodrepoidea crenata	В	8		0		
61	Acrulia inflata	L	2		0		
62	Phyllodrepa nigra	RDBI	24		0	0	0
63	Dropephylla devillei (= grandiloqua)	L	2		0		
64	Dropephylla heeri	В	8		0		
65	Dropephylla ioptera	С	1		0		
66	Dropephylla vilis	С	1		0		
67	Hapalaraea pygmaea	L	2		0		
68	Phloeonomus punctipennis	L	2		0		
69	Phloeonomus pusillus	L	2		0		
70	Phloeostiba lapponica	L	2		0		
71	Phloeostiba plana	L	2		0		
72	Xylostiba monilicornis	В	8		0		
73	Xylodromus testaceus	RDB1	32		0		
74	Coryphium angusticolle	L	2		0		
75	Siagonum quadricorne	L	2		0		
76	Phloeocharis subtillissima	L	2		0		
77	Atrecus affinis	С	1	1	1		
78	Nudobius lentus	<u> </u>	2	1	2		
79	Xantholinus angularis	A	16		0	0	0
80	Philonthus subuliformis	L	2		0		
81	Gabrius splendidulus	С	1	1	1		
82	Velleius dilatatus	RDB1	32		0	0	0
83	Quedius aetolicus	A	16		0	0	0
84	Quedius brevicornis	В	8		0		
85	Quedius maurus	L_	4		0	0	0
86	Quedius microps	B .	8		0	0	0
87	Quedius plagiatus	L_	2		0		
88	Quedius scitus	В	8		0	0	0

10/09/2020

89	Quedius truncicola (=ventralis)	В	8		0	0	О	
90	Quedius xanthopus	В	4		0	0	0	
91	Sepedophilus bipunctatus	В	8		0	-		
92	Sepedophilus littoreus	L	2	1	2			10/09/2020
93	Sepedophilus lusitanicus	L	2	1	2			
94	Sepedophilus testaceus	В	8	·	0			
95	Tachinus bipustulatus	RDB1	32		0			
96	Gyrophaena angustata	В	8		0			
97	Gyrophaena bihamata	L	2		0			
98	Gyrophaena congrua	В	8		0			
99	Gyrophaena joyi	В	8		0			
100	Gyrophaena latissima	L	2	1	2			2018
101	Gyrophaena lucidula	В	8		0			
102	Gyrophaena minima	L	2		0			
103	Gyrophaena munsteri	RDBK	16		0			
104	Gyrophaena poweri	RDBK	16		0			
105	Gyrophaena pseudonana	RDBI	24		0			
106	Gyrophaena pulchella	RDBK	16		0			
107	Gyrophaena strictula	В	8		0			
108	Cyphea curtula	U	4		0			
109	Placusa depressa	В	8		0			
110	Placusa pumilio	L	2		0			
111	Placusa tachyporoides	В	8		0			
112	Homalota plana	L	2		0			
113	Anomognathus cuspidatus	С	2		0			
114	Silusa rubiginosa	В	8		0			
115	Leptusa fumida	С	1	1	1			2018
116	Leptusa norvegica	В	8		0			
117	Leptusa pulchella	L	2		0			
118	Leptusa ruficollis	С	1		0			
119	Euryusa optabilis	RDBI	24		0	0	0	
120	Euryusa sinuata	RDBI	24		0	0	0	
121	Tachyusida gracilis	RDB1	32		0	0	0	
122	Bolitochara lucida	L	2		0			
123	Bolitochara mulsanti	В	8		0			
124	Bolitochara pulchra	В	8		0			
125	Bolitochara reyi	RDBI	24		0			
126	Dinaraea aequata	С	1	1	1			2018
127	Dinaraea linearis	L	2		0			
128	Paranopleta inhabilis	RDBK	16		0			
129	Dadobia immersa	L	2		0			
130	Atheta autumnalis	RDBK	16		0			
131	Atheta boletophila	RDBK	16		0			
132	Atheta hansseni	RDBK	16		0			
133	Atheta liturata	L	2		0			
134	Atheta subglabra	L	2		0			
135	Thamiaraea cinnamomea	L	2		0			
136	Thamiaraea hospita	В	8		0			
137	Phloeodroma concolor	RDBI	24		0			
138	Phloeopora bernhaueri (= teres)	L	2		0			

139	Dhlacanara carticalia (- angustiformia)	В	8	ĺ	0	ı	ĺ	
140	Phloeopora corticalis (= angustiformis) Phloeopora testacea	С	1		0			
	•	RDBI						
141 142	Amarochara bonnairei		24		0			
	Stichoglossa semirufa	RDBI	24					
143	Ischnoglossa prolixa	<u> </u>	2		0			
144	Ischnoglossa obscura	U	16		0			
145	Ischnoglossa turcica	L	2		0			
146	Dexiogyia corticina	B .	8		0			
147	Haploglossa gentilis	L	2		0			
148	Haploglossa marginalis	В	8		0			
149	PSELAPHIDAE	Τ.	1					
150	Bibloporus bicolor	L	2		0			
151	Bibloporus minutus	В	8		0	0	0	
152	Euplectus bescidicus	RDBK	16		0			
153	Euplectus bonvouloiri	В	8		0			
154	Euplectus brunneus	RDB1	32		0	0		
155	Euplectus fauveli	В	8		0			
156	Euplectus infirmus	L	2		0			
157	Euplectus karsteni	L	2		0			
158	Euplectus kirbyi	В	8		0			
159	Euplectus nanus	RDBI	24		0	0	0	
160	Euplectus piceus	С	2		0			
161	Euplectus punctatus	RDB3	24		0	0	0	
162	Plectophloeus nitidus	RDB2	32		0	0	0	
163	Trichonyx sulcicollis	RDB2	32		0	0		
164	Batrisodes adnexus (=buqueti)	RDB1	32		0	0	0	
165	Batrisodes delaporti	RDB1	32		0	0	0	
166	Batrisodes venustus	Α	8		0	0	0	
167	LUCANIDAE						_	
168	Lucanus cervus	В	8		0			
169	Dorcus parallelepipedus	L	2		0			
170	Sinodendron cylindricum	С	2		0	0		
171	SCARABAEIDAE				•			
172	Trichius fasciatus	L	2		0			
173	Gnorimus nobilis	RDB2	32		0		0	
174	Gnorimus variabilis	RDB1	32		0	0	0	
175	SCIRTIDAE	· · · · · · · · · · · · · · · · · · ·		L	- 1	<u> </u>	-	
176	Prionocyphon serricornis	В	8		0	0	0	
177	BUPRESTIDAE				<u> </u>	<u> </u>	ŭ	
178	Melanophila acuminata	L	2		0			
179	Anthaxia nitidula	RDB1	32		0			
180	Agrilus angustulus	В	8		0			
181	Agrilus laticornis	В	8		0			
182	Agrilus biguttatus (=pannonicus)	A	8	1	8	2		2018
183	Agrilus sinuatus	A	4	I	0			2010
					0			
184	Agrilus viridis	Α	24		U			
185	ELATERIDAE	DDD4	00	Ī				
186	Lacon quercus	RDB1	32		0	0	0	
187	Ampedus balteatus	L DDDC	2		0			
188	Ampedus cardinalis	RDB2	32		0	0	0	

189	Ampedus cinnabarinus	RDB3	16		0	0	0
190	Ampedus elongatulus	A	8		0	0	0
191	Ampedus nigerrimus	RDB1	32		0	0	0
192	Ampedus nigrinus	В	8		0	Ü	
193	Ampedus pomorum	В	8		0	0	0
194	Ampedus quercicola (= pomonae)	В	8		0	0	0
195	Brachygonus (= Ampedus) ruficeps	RDB1	32		0	0	0
196	Ampedus rufipennis	RDB2	24		0	0	0
197	Ampedus sanguineus	Е	32		0		
198	Ampedus sanguinolentus	Α	16		0		
199	Ampedus tristis	RDB2	32		0		
200	Ischnodes sanguinicollis	Α	16		0	0	0
201	Procraerus tibialis	RDB3	16		0	0	0
202	Megapenthes lugens	RDB1	32		0	0	0
203	Cardiophorus gramineus	Е	32		0		
204	Cardiophorus ruficollis	Е	32		0		
205	Melanotus villosus (= erythropus)	С	1	1	1		
206	Limoniscus violaceus	RDB1	32		0	0	0
207	Harminius undulatus	В	8		0		
208	Stenagostus rhombeus (= villosus)	L	4	1	4	1	1
209	Calambus (= Selatosomus) bipustulatus	В	8		0	0	0
210	Elater ferrugineus	RDB1	32		0	0	0
211	Denticollis linearis	С	1	1	1		
212	THROSCIDAE						
213	Aulonothroscus brevicollis	RDB3	24		0	0	0
214	EUCNEMIDAE						
215	Eucnemis capucina	RDB1	32		0	0	0
216	Microrhagus (= Dirhagus) pygmaeus	RDB3	8		0	0	0
217	Melasis buprestoides	В	4		0	0	0
218	Epiphanis cornutus	L	8		0		
219	Hylis cariniceps	RDB1	32		0		
220	Hylis olexai	RDB3	24	1	24		
221	CANTHARIDAE	1	1				
222	Malthinus balteatus	В	8		0		
223	Malthinus flaveolus	С	1		0		
224	Malthinus frontalis	В	8		0		
225	Malthinus seriepunctatus	L	2	1	2		
226	Malthodes crassicornis	RDB3	24		0	0	0
227	Malthodes dispar	L	2		0		
228	Malthodes fibulatus	В	8		0		
229	Malthodes flavoguttatus	L	2		0		
230	Malthodes fuscus	L	2	1	2		
231	Malthodes guttifer	В	8		0		
232	Malthodes marginatus	С	1	1	1		
233	Malthodes maurus	В	16		0		
234	Malthodes minimus	С	1	1	1		
235	Malthodes mysticus	L	2		0		
236	Malthodes pumilus	L	2		0		
237	LYCIDAE	1_		-	-	1	
238	Dictyoptera aurora	В	16		0		

239	Pyropterus nigroruber	A	16		0	0	0
239 240	Platycis cosnardi	RDBI	24		0	0	0
240	Platycis minutus	В	8		0	0	0
242	DERMESTIDAE	_ D			0		0
243	Globicornis rufitarsis (=nigripes)	RDB1	32		0	0	0
244	Megatoma undata	В	8		0		0
245	Ctesias serra	В	4		0	0	
246	Trinodes hirtus	RDB3	24		0	0	0
247	ANOBIIDAE	KDB3	24		0	<u> </u>	0
248	Ptinomorphus (= Hedobia) imperialis	В	8		0		
249	Grynobius planus	L	2	1	2		
250	Dryophilus pusillus	L	2		0		
251	Ochina ptinoides	L	2		0		
252	Xestobium rufovillosum	С	4		0	0	0
					0		0
253254	Ernobius mollis Ernobius nigrinus	L	2		0		
254 255		RDB1	32		0	0	0
	Gastrallus immarginatus	C			0	0	0
256	Hemicoelus fulvicornis		1				
257 258	Hemicoelus nitidus	RDBI B	24 8		0		
	Anobium inexspectatum						
259	Anobium punctatum	С	1		0		
260	Hadrobregmus denticollis	В	8				
261	Ptilinus pectinicornis	С	1		0		
262	Xyletinus longitarsus	RDB2	32		0	0	0
263	Dorcatoma ambjourni	RDBK	16		0		0
264	Dorcatoma chrysomelina	L	4		0	0	0
265	Dorcatoma dresdensis	A	16		0	0	0
266	Dorcatoma flavicornis	В	8		0	0	0
267	Dorcatoma serra	A	16		0	0	0
268	Anitys rubens	В	8		0	0	0
269	PTINIDAE	DDDO	0.4		0		
270	Ptinus lichenum	RDB3	24		0		
271	Ptinus palliatus	A	16		0	0	
272	Ptinus subpilosus	В	8	<u> </u>	0	0	0
273	BOSTRICHIDAE Restrictive conversions	 -	00				
274	Bostrichus capucinus	E	32	<u> </u>	0		<u> </u>
275	LyCTIDAE	1,	4			^	
276	Lyctus brunneus	L	4		0	0	0
277	Lyctus linearis	В	8		0		
278	PHLOIOPHILIDAE Phloiophilus advandai	T _D					_
279	Phloiophilus edwardsi	В	8		0	0	0
280	TROGOSSITIDAE	DDDC	2.				
281	Nemozoma elongatum	RDB3	24		0		
282	PELTIDAE						
283	Ostoma ferrugineum	RDB1	32		0		
284	Thymalus limbatus	В	8	1	8	1	2
285	CLERIDAE	Τ_					
286	Korynetes caeruleus	В	8		0	0	0
287	Tillus elongatus Tilloidea unifasciatus	B E	32		0	0	0
288					0		1

289	Opilio mollis	В	8		0	0	0
290	Thanasimus formicarius	L	4		0	0	0
291	Thanasimus rufipes	RDB3	24		0		
292	Tarsostenus univittatus	Е	32		0		
293	MELYRIDAE						
294	Aplocnemus impressus (=pini)	В	8		0	0	0
295	Aplocnemus nigricornis	Α	16		0	0	0
296	Dasytes aeratus (= aerosus)	L	2	1	2		
297	Dasytes niger	Α	16		0		
298	Dasytes plumbeus	В	8		0		
299	Hypebaeus flavipes	RDB1	32		0	0	0
300	Axinotarsus ruficollis	L	4		0		
301	Sphinginus lobatus	RDBK	16		0		
302	Malachius bipustulatus	С	1	1	1		
303	Anthocomus fasciatus	L	4	1	4		
304	LYMEXYLIDAE			T		ı	
305	Hylecoetus dermestoides	В	4		0	0	0
306	Lymexylon navale	RDB2	32		0	0	0
307	NITIDULIDAE			T			
308	Carpophilus sexpustulatus	L	8		0	0	0
309	Epuraea angustula	В	8		0	0	0
310	Epuraea biguttata	L	2		0		
311	Epuraea distincta	Α	8		0		
312	Epuraea fuscicollis	В	8		0		
313	Epuraea guttata	В	8		0		
314	Epuraea limbata	L	2		0		
315	Epuraea longula	В	8		0		
316	Epuraea neglecta	RDBI	24		0		
317	Epuraea marseuli (= pusilla)	С	1		0		
318	Epurea pallescens (= florea)	L	2		0		
319	Epuraea rufomarginata	L	2		0		
320	Epuraea silacea (= deleta)	С	1		0		
321	Epuraea terminalis (= adumbrata)	В	8		0		
322	Epuraea thoracica	В	8		0		
323	Epuraea variegata	RDBK	16		0		
324	Soronia grisea	L	2		0		
325	Soronia punctatissima	L _	2		0		
326	Cryptarcha strigata	В	8		0		
327	Cryptarcha undata	В	8		0		
328	Pityophagus ferrugineus	L	2		0		
329	Glischrochilus quadriguttatus	L	2		0		
330	Glischrochilus quadripunctatus	L	2		0		
331	RHIZOPHAGIDAE						
332	Rhizophagus bipustulatus	С	1	11_	1		
333	Rhizophagus cribratus	L	2		0		
334	Rhizophagus depressus	L	2		0		
335	Rhizophagus dispar	С	1	1	1		
336	Rhizophagus ferrugineus	L	2		0		
337	Rhizophagus nitidulus	B	4		0	0	0
338	Rhizophagus oblongicollis	RDB1	24		0	0	0

339	Rhizophagus parallelocollis	Ti	2		0		
340	Rhizophagus parvulus	RDB3	24		0		
341	Rhizophagus perforatus	1	2		0		
342	Rhizophagus picipes	A	16		0		
343	Cyanostolus aeneus	A	16		0		
344	SPHINDIDAE						
345	Aspidiphorus orbiculatus	L	2		0		
346	Sphindus dubius	В	8		0		
347	CUCUJIDAE						
348	Uleiota planata	Α	16		0	0	0
349	Dendrophagus crenatus	В	8		0		
350	Pediacus depressus	Α	16		0	0	0
351	Pediacus dermestoides	L	4		0	0	0
352	Laemophloeus monilis	RDB1	32		0	0	
353	Cryptolestes duplicatus	L	2		0		
354	Cryptolestes ferrugineus	С	2		0		
355	Notolaemus unifasciatus	Α	16		0	0	0
356	SILVANIDAE						
357	Silvanus bidentatus	В	8	1	8	2	2
358	Silvanus unidentatus	L	4	1	4	1	1
359	Silvanoprus fagi	RDB1	32		0		
360	CRYPTOPHAGIDAE						
361	Henoticus serratus	L	2		0		
362	Cryptophagus acuminatus	L	8		0		
363	Cryptophagus angustus	В	8		0		
364	Cryptophagus confusus	RDBK	16		0		
365	Cryptophagus corticinus	RDBI	24		0		
366	Cryptophagus dentatus	С	1		0		
367	Cryptophagus falcozi	RDBI	24		0		
368	Cryptophagus intermedius	RDBK	16		0		
369	Cryptophagus labilis	В	8		0		
370	Cryptophagus micaceus	RDBK	16		0	0	0
371	Cryptophagus ruficornis	В	8		0		
372	Micrambe bimaculatus	RDBK	16		0		
373	Caenoscelis sibirica	U	4		0		
374	Atomaria badia	RDBI	24		0		
375	Atomaria lohsei	RDBK	16		0	0	
376	Atomaria morio	RDBK	16		0		
377	Atomaria procerula	RDBK	16		0		
378	Atomaria pulchra	L	2		0		
379	Atomaria puncticollis	RDBK	16		0		
380	BIPHYLLIDAE	1	T	ı			
381	Biphyllus lunatus	L	4	1	4	1	1
382	Diplocoelus fagi	В	8	1	8	2	1
383	EROTYLIDAE	<u> </u>	T				
384	Triplax aenea	L	2	1	2	1	
385	Triplax lacordairii	RDB3	24	1	24	1	1
386	Triplax russica	L	4		0	0	0
387	Triplax scutellaris	RDB3	32		0	0	0
388	Tritoma bipustulata	Α	16		0	0	0

389	Dacne bipustulata	1.	2	ĺ	0	1	ĺ
390	•	<u> </u>	2				
	Dacne rufifrons	L			0		
391 392	CERYLONIDAE Constant for its	В	8		0	0	0
	Cerylon fagi		2	4	0	U	0
393	Cerylon ferrugineum	L		1	2		
394	Cerylon histeroides	L	4	1	4		
395	CORYLOPHIDAE	55514					
396	Orthoperus aequalis (= nitidulus)	RDBK	16		0		
397	Orthoperus mundus	L	4		0	Ţ	
398	ENDOMYCHIDAE	1_					_ 1
399	Symbiotes latus	B .	8		0	0	0
400	Endomychus coccineus	L	2	1	2		
401	Mycetaea subterranea (= hirta)	<u>L</u>	2		0		
402	LATRIDIIDAE					1	
403	Stephostethus alternans	U	4		0		
404	Cartodere constricta	L	4		0		
405	Lathridius consimilis	В	8		0	0	0
406	Enicmus brevicornis	В	8		0	0	0
407	Enicmus fungicola	В	8		0		
408	Enicmus rugosus	В	8		0	0	0
409	Emicmus testaceus	L	2		0		
410	Dienerella clathrata/elongata (=separanda)	H&R2				0	
411	Corticaria alleni	В	8		0	0	0
412	Corticaria fagi	RDBI	24		0	0	
413	Corticaria linearis	В	8		0		
414	Corticaria longicollis	RDBK	16		0	0	
415	Corticaria polypori	U	16		0		
416	CIIDAE			"	<u> </u>		
417	Octotemnus glabriculus	С	1	1	1		
418	Rhopalodontus perforatus	RDB3	24		0		
419	Sulcacis affinis	L	2		0		
420	Sulcacis bicornis	В	8		0		
421	Cis alni	_					
		l L	2		0		
422		L	2	1	0		
422 423	Cis bidentatus	L	2	1	2		
423	Cis bidentatus Cis boleti	L C	2	1	2	0	0
423 424	Cis bidentatus Cis boleti Cis coluber	C RDB3	2 1 24		2 1 0	0	0
423 424 425	Cis bidentatus Cis boleti Cis coluber Cis dentatus	L C	2 1 24 24	1	2 1 0	0	0
423 424 425 426	Cis bidentatus Cis boleti Cis coluber Cis dentatus Cis fagi	L C RDB3 RDB3 L	2 1 24 24 2 2		2 1 0 0 2	0	0
423 424 425 426 427	Cis bidentatus Cis boleti Cis coluber Cis dentatus Cis fagi Cis festivus	C RDB3	2 1 24 24 2 2	1	2 1 0 0 2	0	0
423 424 425 426 427 428	Cis bidentatus Cis boleti Cis coluber Cis dentatus Cis fagi Cis festivus Cis hispidus	L C RDB3 RDB3 L B	2 1 24 24 2 2 2	1	2 1 0 0 2 0	0	0
423 424 425 426 427 428 429	Cis bidentatus Cis boleti Cis coluber Cis dentatus Cis fagi Cis festivus Cis hispidus Cis jacquemarti	L C RDB3 RDB3 L B L B	2 1 24 24 2 2 2 4 8	1	2 1 0 0 2 0 0	0	0
423 424 425 426 427 428 429	Cis bidentatus Cis boleti Cis coluber Cis dentatus Cis fagi Cis festivus Cis hispidus Cis jacquemarti Cis lineatocribratus	L C RDB3 RDB3 L B	2 1 24 24 2 2 2 4 8 8	1	2 1 0 0 2 0 0 0	0	0
423 424 425 426 427 428 429 430 431	Cis bidentatus Cis boleti Cis coluber Cis dentatus Cis fagi Cis festivus Cis hispidus Cis jacquemarti Cis lineatocribratus Cis micans	L C RDB3 RDB3 L B L B L	2 1 24 24 2 2 2 4 8 8	1	2 1 0 0 2 0 0 0 0	0	0
423 424 425 426 427 428 429 430 431 432	Cis bidentatus Cis boleti Cis coluber Cis dentatus Cis fagi Cis festivus Cis hispidus Cis jacquemarti Cis lineatocribratus Cis micans Cis nitidus	L C RDB3 RDB3 L B L B B	2 1 24 24 2 2 2 4 8 8 8	1	2 1 0 0 2 0 0 0 0	0	0
423 424 425 426 427 428 429 430 431 432	Cis bidentatus Cis boleti Cis coluber Cis dentatus Cis fagi Cis festivus Cis hispidus Cis jacquemarti Cis lineatocribratus Cis micans Cis nitidus Cis punctulatus	L C RDB3 RDB3 L B L B L L L L L	2 1 24 24 2 2 4 8 8 8 4 2	1	2 1 0 0 2 0 0 0 0 0 2	0	0
423 424 425 426 427 428 429 430 431 432 433	Cis bidentatus Cis boleti Cis coluber Cis dentatus Cis fagi Cis festivus Cis hispidus Cis jacquemarti Cis lineatocribratus Cis micans Cis nitidus Cis punctulatus Cis pygmaeus	L C RDB3 RDB3 L B L B L	2 1 24 24 2 2 2 4 8 8 8 4 2	1	2 1 0 0 2 0 0 0 0 0 2	0	0
423 424 425 426 427 428 429 430 431 432 433 434	Cis bidentatus Cis boleti Cis coluber Cis dentatus Cis fagi Cis festivus Cis hispidus Cis jacquemarti Cis lineatocribratus Cis micans Cis nitidus Cis punctulatus Cis pygmaeus Cis setiger	L C RDB3 RDB3 L B L B L L L L L L	2 1 24 24 2 2 2 4 8 8 8 4 2 4 2	1	2 1 0 0 2 0 0 0 0 0 2 0 0	0	0
423 424 425 426 427 428 429 430 431 432 433 434 435	Cis bidentatus Cis boleti Cis coluber Cis dentatus Cis fagi Cis festivus Cis hispidus Cis jacquemarti Cis lineatocribratus Cis micans Cis nitidus Cis punctulatus Cis pygmaeus Cis setiger Cis vestitus	L C RDB3 RDB3 L B L B L L L L L	2 1 24 24 2 2 4 8 8 8 4 2 2 4 2 2 2 2 2 4 2 2 2 2	1	2 1 0 0 2 0 0 0 0 2 0 0 0	0	0
423 424 425 426 427 428 429 430 431 432 433 434	Cis bidentatus Cis boleti Cis coluber Cis dentatus Cis fagi Cis festivus Cis hispidus Cis jacquemarti Cis lineatocribratus Cis micans Cis nitidus Cis punctulatus Cis pygmaeus Cis setiger	L C RDB3 RDB3 L B L B L L L L L L	2 1 24 24 2 2 2 4 8 8 8 4 2 4 2	1	2 1 0 0 2 0 0 0 0 0 2 0 0	0	0

439	Pseudotriphyllus suturalis	L	4		0	0	
440	Triphyllus bicolor	L	4		0	0	
441	Litargus connexus	L	2	1	2		
442	Mycetophagus atomarius	L	2		0	0	
443	Mycetophagus fulvicollis	E	32		0		
444	Mycetophagus multipunctatus	L	2		0		
445	Mycetophagus piceus	В	4		0	0	
446	Mycetophagus populi	А	16		0		
447	Mycetophagus quadriguttatus	А	16		0		
448	Mycetophagus quadripustulatus	L	2	1	2		
449	COLYDIIDAE			•			
450	Synchita humeralis	В	8		0	0	
451	Synchita separanda	RDB3	24		0	0	
452	Cicones variegata	A	8		0	0	
453	Bitoma crenata	L	4	1	4	1	
454	Endophloeus markovichianus	RDB1	32		0		
455	Colydium elongatum	RDB3	16	1	16	3	
456	Aulonium trisulcum	A A	16		0	3	
450 457	Teredus cylindricus	RDB1	32		0	0	
457 458	Oxylaemus cylindricus	E	32		0	0	
456 459	Oxylaemus variolosus	RDB3	24		0	0	
460	TENEBRIONIDAE	KDB3	24		0	0	
460 461		RDB3	16		0		
	Bolitophagus reticulatus		16	4	0	4	
462	Eledona agricola	В	4	1	4	1	
463	Diaperus boleti	RDB2	24		0		
464	Platydema violaceum	RDB1	32		0		
465	Pentaphyllus testaceus	U .	4		0		
466	Corticeus bicolor	L	8		0		
467	Corticeus unicolor	RDB3	24		0	0	
468	Gonodera luperus	L _	2		0		
469	Helops caeruleus	B	8		0		
470	Prionychus ater	В	8		0	0	
471	Prionychus melanarius	RDB2	32		0	0	
472	Pseudocistela ceramboides	В	8		0	0	
473	Mycetochara humeralis	Α	16		0	0	
474	TETRATOMIDAE			1			
475	Tetratoma ancora	В	8		0	0	
476	Tetratoma desmaresti	Α	16		0	0	
477	Tetratoma fungorum	L	2		0	0	
478	SALPINGIDAE						
479	Lissodema cursor	Α	16		0		
480	Lissodema quadripustulata	В	8		0		
481	Rabocerus foveolatus	Α	16		0		
482	Rabocerus gabrieli	В	8		0		
483	Salpingus castaneus	L	2		0		
484	Salpingus ater	L	2		0		
485	Salpingus reyi	L	2		0		
486	Vicenzellus ruficollis	L	2		0		
487	Rhinosimus planirostris	С	1	1	1		
488	Rhinosimus ruficollis	С	1		0		

	PYTHIDAE			1	Ι	I	
190	Pytho depressus	Α	16		0		
191	PYROCHROIDAE	1	T T				
192	Pyrochroa coccinea	В	4	1	4	1	
93	Pyrochroa serraticornis	С	1		0		
94	Schizotus pectinicornis	Α	16		0		
195	MELANDRYIDAE	1	1	1		1	
196	Hallomenus binotatus	В	8		0	0	
197	Orchesia micans	В	4		0		
198	Orchesia minor	В	8		0		
199	Orchesia undulata	L	4	1	4	1	
500	Anisoxya fuscula	Α	16		0	0	
501	Abdera affinis	RDB1	32		0		
502	Abdera biflexuosa	В	8		0	0	
503	Abdera flexuosa	В	8		0		
504	Abdera quadrifasciata	Α	16		0	0	
505	Abdera triguttata	Α	16		0		
506	Phloiotrya vaudoueri	В	8	1	8	2	
507	Xylita laevigata	Α	16		0		
508	Hypulus quercinus	RDB2	16		0	0	
509	Zilora ferruginea	В	8		0		
510	Melandrya barbata	RDB1	32		0	0	
511	Melandrya caraboides	В	4		0	0	
512	Conopalpus testaceus	В	8		0	0	
513	Osphya bipunctata	RDB3	16		0		
514	SCRAPTIIDAE	•	'	•	'	•	
515	Scraptia dubia	E	32		0	0	
516	Scraptia fuscula	RDB1	32		0	0	
517	Scraptia testacea	RDB3	16		0	0	
518	Anaspis bohemica	RDBK	16		0		
519	Anaspis costai	С	2		0		
520	Anaspis frontalis	С	1	1	1		
521	Anaspis humeralis	С	2	1	2		
522	Anaspis lurida	L	2	1	2		
523	Anaspis melanostoma	RDBK	16	'	0		
524	Anaspis pulicaria	С	1		0		
525	Anaspis rufilabris	С	1		0		
526	Anaspis septentrionalis (= schilskyana)	RDBI	24		0		
527	Anaspis thoracica	A	8		0		
528	MORDELLIDAE	Ι Λ	0		0		
529		Α	16		0	0	
	Tomoxia bucephala (= biguttata)		10		0		
30	Mordella holomelaena (= aculeata)	H&R3				0	
31	Mordella leucaspis (= aculeata)	H&R3				0	
32	Mordellochroa abdominalis	L	4		0		
533	Mordellistena neuwaldeggiana	RDBK	16		0	+	
534	Mordellistena variegata	L	8		0		
535	Variimorda villosa	H&R3				0	
36	OEDEMERIDAE	T		1	Ι	Γ	
37	Chrysanthia nigricornis	RDB1	32		0	+	
38	Ischnomera caerulea	RDB3	24		0	0	

539	Ischnomera cinerascens	RDB2	32		0	0	0	-
540	Ischnomera cyanea	В	4		0	0	0	
541	Ischnomera sanguinicollis	В	8		0	0	0	
542	Oncomera femorata	В	8		0	J		
544	ADERIDAE	. –				l.		1
545	Aderus brevicornis	RDB2	32		0	0	0	
546	Aderus oculatus	В	8	1	8	1	1	
547	Aderus populneus	В	8		0			
548	CERAMBYCIDAE							
549	Prionus coriarius	Α	16		0	0	0	
550	Arhopalus rusticus	L	2		0			
551	Asemum striatum	L	2		0			
552	Rhagium bifasciatum	С	1	1	1			
553	Rhagium mordax	С	1	1	1			2018
554	Rhagium inquisitor	В	8		0			
555	Stenocorus meridianus	L	2		0			
556	Dinoptera (= Acmaeops) collaris	RDB1	32		0			
557	Grammoptera ruficornis	С	1	1	1			
558	Grammoptera ustulata	RDB3	24		0	0	0	
559	Grammoptera variegata	Α	24		0	0	0	
560	Alosterna tabacicolor	L	2		0			
561	Paracorymbia (= Leptura) fulva	RDB3	24		0			
562	Anastrangalia (= Leptura) sanguinolenta	RDB3	24		0			
563	Stictoleptura (=Anoplodera) scutellata	Α	16	1	16	3	3	
564	Anoplodera (= Leptura) sexguttata	RDB3	24		0		0	
565	Lepturobosca virens	E	32		0			
566	Pachytodes (= Judolia) cerambyciformis	L	2		0			
567	Judolia sexmaculata	Α	24		0			
568	Leptura (= Strangalia) aurulenta	Α	16		0	0	0	
569	Rutpela (= Strangalia) maculata	С	1	1	1			
570	Stenurella (= Strangalia) melanura	L	2		0			
571	Stenurella (= Strangalia) nigra	Α	24		0			0040
572	Leptura (= Strangalia) quadrifasciata	L	2	1	2	1	1	2018
573	Pedostrangalia (=Leptura) revestita	RDB1	32		0	0	0	
574	Obrium cantharinum	E	32		0			
575	Molorchus umbellatarum	A	16		0			
576	Aromia moschata	В	8		0	_		
577	Pyrrhidium sanguineum	RDB2	24		0	0	0	
578	Phymatodes alni	B .	16		0			
579	Phymatodes testaceus	L	4		0	0	0	
580	Plagionatus arcuatus	E	32		0			
581	Clytus arietis	С	1		0			
582	Anaglyptus mysticus	В	4		0			
583	Lamia textor	RDB1	32		0	•		
584	Mesosa nebulosa	RDB3	24		0	0	0	
585	Pogonocherus fasciculatus	В	16		0			
586	Pogonocherus hispidulus	L	2		0			
587	Pogonocherus hispidus	L	2		0			
588	Leiopus nebulosus	L	2		0			
589	Acanthocinus aedilis	В	8		0			1

590	Saperda carcharias	Α	16		0		
591	Saperda scalaris	A	8		0	0	0
592	Stenostola dubia	В	8		0		
593	Tetrops praeusta	L	2	1	2		
594	Tetrops starkii	RDBK	16		0		
595	CHRYSOMELIDAE	ROBR	10			I	
596	Cryptocephalus querceti	H&R1				0	
597	ANTHRIBIDAE	T I CAT C I	I			, ,	
598	Platyrhinus resinosus	В	4		0	0	0
599	Tropideres niveirostris	RDB2	32		0	0	0
600	Tropideres sepicola	RDB2	32		0	0	0
601	Platystomos albinus	В	8		0	0	0
602	Choragus sheppardi	Α	16		0		
603	CURCULIONIDAE						
604	Hylobius abietis	С	1		0		
605	Pissodes castaneus	L	2		0		
606	Pissodes pini	С	2		0		
607	Magdalis armigera	L	2		0		
608	Magdalis barbicornis	Α	8		0		
609	Magdalis carbonaria	В	4		0		
610	Magdalis cerasi	В	4		0		
611	Magdalis duplicata	Α	16		0		
612	Magdalis phlegmatica	Α	8		0		
613	Magdalis ruficornis	L	2		0		
614	Mesites tardii	В	8		0	0	0
615	Pentarthum huttoni	H&R3				0	
616	Cossonus linearis	Α	16		0		
617	Cossonus parallelepipedus	В	8		0	0	0
618	Rhyncolus chloropus (=Eremotes ater)	L	8		0		
619	Phloeophagus (= Rhyncholus) gracilis	Е	32		0		
620	Phloeophagus (= Rhyncholus) lignarius	L	2		0		
621	Stereocorynes (= Rhyncholus) truncorum	Α	16		0	0	0
622	Caulotrupodes aeneopiceus	L	2		0	0	
623	Dryophthorus corticalis	RDB1	32		0	0	0
624	Trachodes hispidus	В	8		0	0	0
625	Acalles misellus (= turbatus)	L	2		0		
626	Acalles roboris	В	8		0		
627	SCOLYTIDAE		J			I	
628	Hylesinus crenatus	L	2		0		
629	Hylesinus oleiperda	L	2		0		
630	Hylesinus orni	В	8		0		
631	Hylesinus (= Leperisinus) varius	С	1		0		
632	Pteleobius vittatus	L	2		0		
633	Kissophagus hederae	В	8		0		
634	Hylurgops palliatus	С	1		0		
635	Hylastes ater	С	1		0		
636	Hylastes brunneus	L	2		0		
637	Hylastes opacus	L	2		0		
638	Tomicus minor	RDB3	24		0		
639	Tomicus piniperda	С	1		0		

640	Scolytus intricatus	L	2		0		
641	Scolytus mali	В	8		0		
642	Scolytus multistriatus	С	1		0		
643	Scolytus ratzeburgi	В	8		0		
644	Scolytus rugulosus	L	2		0		
645	Scolytus scolymus	С	2		0		
646	Dryocoetinus alni	Α	16		0		
647	Dryocoetinus villosus	L	2		0		
648	Dryocoetes autographus	L	2		0		
649	Lymantor coryli	RDB1	32		0		
650	Taphrorhychus bicolor	Α	8	1	8		
651	Trypodendron (= Xyloterus) domesticum	L	2		0	0	0
652	Trypodendron (= Xyloterus) lineatum	L	2		0	0	<u>-</u>
653	Trypodendron (= Xyloterus) signatum	В	8		0	0	0
654	Ernoporus caucasicus	RDB1	16		0	0	0
655	Ernoporus fagi	A	8		0	0	0
356	Ernoporus tiliae	RDB1	32		0	Ĭ	0
557	Trypophloeus binodulus (= asperatus)	A	16		0		<u> </u>
558	Trypophloeus granulatus	E	32		0		
559	Xyleborus dispar	В	8		0	0	0
360	Xyleborus dryographus	В	8		0	0	0
661	Xyleborinus saxeseni	L	4	1	4	1	<u>0</u> 1
62	Pityophthorus lichtensteini	RDB3	24	'	0	'	<u> </u>
63							
	Pityophthorus pubescens	L	2		0		
64	Pityogenes bidentatus	L	2		0		
65	Pityogenes quadridens	A	16		0		
66	Pityogenes trepanatus	Α .	8		0		
67	Ips acuminatus	L .	2		0		
68	Orthotomicus suturalis	L	2		0		
69	PLATYPODIDAE	T _	<u> </u>	<u> </u>	_	. I	
70	Platypus cylindrus	В	8	1	8	1	1
71		1	1				
72	TOTAL BROAD-LEAVED SPECIES:	62	 	BROAD-LEA\		245	
73	TOTAL CONIFER SPECIES:	0		CONIFER SQ		0	
674	TOTAL MIXED SPECIES:	62	 	TOTAL SCOR		245	
375	'HARDING & ROSE' SPECIES	20	}	H&R1	2	RIEC1	1
376	ALEXANDER' SPECIES	17	 	H&R2	4	RIEC2	3
677	TOTAL SPECIES:	62]	H&R3	14	RIEC3	13
678							
679	Franchises Lodge, New Forest			TOTAL IEC =		28	
80	2018-2020			TOTAL RIEC	_	22	
			BBOAD I	•	_		
881	0		i	LEAVED SQI :		395.16	
82		MIXED SQI:				395.16	
583	[CONIFER SQI]: #DIV/0!						
684 685	SPECIES COMPOSITION:						
CO	SI ECIES CONIFOSITION:				CONIFER		
686	STATUS:	BROAD-L	EAVED SP	ECIES	SPECIES		
87	COMMON	20			0		
88	LOCAL	28			0		
689	NOTABLE	0			0		

690	NOTABLE B	8	0
691	NOTABLE A	3	0
692	UNCERTAIN	0	0
693	RED DATA BOOK K	0	0
694	RED DATA BOOK I	0	0
695	RED DATA BOOK 3	3	0
696	RED DATA BOOK 2	0	0
697	RED DATA BOOK 1	0	0
	EXTINCT	0	0

Appendix 2 - Records (note that *Gnathotrichus materiarius* does not appear here, not yet being in the species dictionary).

Taxon group	Recommended Taxon Name	Taxon Common Name	Sample Location	Date	Grid ref.	Obs Abundances (LC)
beetle	Abax parallelepipedus	Abax parallelepipedus	Tuckers Hat	04/06/2020	SU23321655	1 Count of Adult
beetle	Abax parallelepipedus	Abax parallelepipedus	Tuckers Hat	10/09/2020	SU23191657	1 Count of Adult
beetle	Abax parallelepipedus	Abax parallelepipedus	Tuckers Hat	11/07/2020	SU23191657	1 Count of Adult
beetle	Agelastica alni	Alder Leaf Beetle	Power Lines	04/06/2020	SU22991795	1 Count of Adult
beetle	Agelastica alni	Alder Leaf Beetle	Tuckers Hat	04/06/2020	SU23161673	1 Count of Elyton
beetle	Anaspis fasciata	Anaspis fasciata	Power Lines	04/06/2020	SU22991795	Present Count of Adult
beetle	Anaspis fasciata	Anaspis fasciata	Power Lines	04/06/2020	SU22991795	1 Count of Adult Female
beetle	Anaspis frontalis	Anaspis frontalis	Power Lines	04/06/2020	SU22991795	Present Count of Adult Female
beetle	Anaspis Iurida	Anaspis Iurida	Power Lines	04/06/2020	SU22991795	1 Count of Adult
beetle	Anaspis maculata	Anaspis maculata	Power Lines	04/06/2020	SU22991795	Present Count of Adult
beetle	Anaspis regimbarti	Anaspis regimbarti	Power Lines	04/06/2020	SU22991795	1 Count of Adult
beetle	Anaspis regimbarti	Anaspis regimbarti	Power Lines	04/06/2020	SU22991795	Present Count of Adult Male
beetle	Andrion regensteinense	Sitona regensteinensis	Power Lines	10/09/2020	SU22991795	Present Count of Adult
beetle	Anoplotrupes stercorosus	Anoplotrupes stercorosus	Franchises Common	11/07/2020	SU23641751	1 Count of Adult
beetle	Anoplotrupes stercorosus	Anoplotrupes stercorosus	Tuckers Hat	04/06/2020	SU23431658	1 Count of Adult
beetle	Anoplotrupes stercorosus	Anoplotrupes stercorosus	Tuckers Hat	10/09/2020	SU23191657	1 Count of Adult
beetle	Anthocomus fasciatus	Anthocomus fasciatus	Power Lines	04/06/2020	SU22531797	1 Count of Adult
beetle	Aplotarsus incanus	Aplotarsus incanus	Power Lines	04/06/2020	SU22991795	2 Count of Adult
beetle	Aplotarsus incanus	Aplotarsus incanus	Tuckers Hat	04/06/2020	SU23191657	1 Count of Adult
beetle	Athous haemorrhoidalis	Athous haemorrhoidalis	Franchises Common	11/07/2020	SU23641751	Present Count of Adult
beetle	Athous haemorrhoidalis	Athous haemorrhoidalis	Tuckers Hat	04/06/2020	SU23231665	Present Count of Adult
beetle	Atrecus affinis	Atrecus affinis	Tuckers Hat	10/09/2020	SU23431658	1 Count of Adult
beetle	Biphyllus lunatus	Biphyllus lunatus	Tuckers Hat	04/06/2020	SU23161673	1 Count of Adult
beetle	Bitoma crenata	Bitoma crenata	Power Lines	10/09/2020	SU22991795	Present Count of Adult
beetle	Bitoma crenata	Bitoma crenata	Tuckers Hat	04/06/2020	SU23081678	1 Count of Adult
beetle	Bitoma crenata	Bitoma crenata	Tuckers Hat	04/06/2020	SU23031673	Present Count of Adult
beetle	Calodromius spilotus	Calodromius spilotus	Power Lines	10/09/2020	SU22991795	1 Count of Adult
beetle	Cartodere nodifer	Cartodere nodifer	Browse Plot	10/09/2020	SU227170	1 Count of Adult
beetle	Cerylon ferrugineum	Cerylon ferrugineum	Tuckers Hat	04/06/2020	SU23391649	1 Count of Adult
beetle	Cerylon histeroides	Cerylon histeroides	Tuckers Hat	11/07/2020	SU23431658	Present Count of Adult
beetle	Cetonia aurata	Rose Chafer	Power Lines	04/06/2020	SU23251800	1 Count of Adult
beetle	Ceutorhynchus pallidactylus	Cabbage Stem Weevil	Franchises Common	11/07/2020	SU23641751	1 Count of Adult

beetle	Cis bidentatus	Cis bidentatus	Tuckers Hat	04/06/2020	SU23081678	2 Count of Adult Male
beetle	Cis bilamellatus	Cis bilamellatus	Tuckers Hat	11/07/2020	SU23191657	Present Count of Adult Male
beetle	Cis boleti	Cis boleti	Tuckers Hat	10/09/2020	SU23431658	1 Count of Adult
beetle	Cis fagi	Cis fagi	Tuckers Hat	04/06/2020	SU23191657	1 Count of Adult
beetle	Cis nitidus	Cis nitidus	Tuckers Hat	04/06/2020	SU23161673	Present Count of Adult
beetle	Coccinella septempunctata	7-spot Ladybird	Power Lines	10/09/2020	SU22991795	Present Count of Adult
beetle	Coccinella septempunctata	7-spot Ladybird	Power Lines	11/07/2020	SU22991795	Present Count of Adult
beetle	Colydium elongatum	Colydium elongatum	Tuckers Hat	04/06/2020	SU23321655	1 Count of Adult
beetle	Crepidodera aurata	Willow Flea Beetle	Power Lines	04/06/2020	SU22991795	1 Count of Adult
beetle	Crepidodera aurata	Willow Flea Beetle	Power Lines	10/09/2020	SU22991795	Present Count of Adult
beetle	Dalopius marginatus	Dalopius marginatus	Tuckers Hat	04/06/2020	SU23191657	Present Count of Adult
beetle	Dasytes aeratus	Dasytes aerosus	Power Lines	04/06/2020	SU22991795	1 Count of Adult
beetle	Dasytes aeratus	Dasytes aeratus	Power Lines	04/06/2020	SU22991795	Present Count of Adult
beetle	Denticollis linearis	Denticollis linearis	Tuckers Hat	04/06/2020	SU23161673	1 Count of Adult
beetle	Diplocoelus fagi	Diplocoelus fagi	Tuckers Hat	04/06/2020	SU23031673	1 Count of Adult
beetle	Dromius angustus	Dromius angustus	Power Lines	10/09/2020	SU22991795	1 Count of Adult
beetle	Eledona agricola	Eledona agricola	Browse Plot	10/09/2020	SU227170	1 Count of Adult
beetle	Endomychus coccineus	Endomychus coccineus	Tuckers Hat	11/07/2020	SU23031673	1 Count of Adult
beetle	Euglenes oculatus	Euglenes oculatus	Tuckers Hat	11/07/2020	SU23241667	1 Count of Adult Female
beetle	Euophryum confine	Wood-Boring Weevil	Tuckers Hat	04/06/2020	SU23191657	1 Count of Adult
beetle	Euophryum confine	Wood-Boring Weevil	Tuckers Hat	04/06/2020	SU23031673	1 Count of Adult
beetle	Exapion ulicis	Gorse Weevil	Power Lines	04/06/2020	SU22991795	Present Count of Adult
beetle	Exochomus quadripustulatus	Pine Ladybird	Power Lines	10/09/2020	SU22991795	Present Count of Adult
beetle	Gabrius splendidulus	Gabrius splendidulus	Power Lines	04/06/2020	SU22991795	1 Count of Adult
beetle	Grammoptera ruficornis	Grammoptera ruficornis	Power Lines	04/06/2020	SU22991795	1 Count of Adult
beetle	Grynobius planus	Grynobius planus	Tuckers Hat	04/06/2020	SU23231665	1 Count of Adult
beetle	Hemicrepidius hirtus	Hemicrepidius hirtus	Tuckers Hat	11/07/2020	SU23031673	1 Count of Adult
beetle	Hydroporus memnonius	Hydroporus memnonius	Power Lines	04/06/2020	SU22991795	1 Count of Adult
beetle	Hylis olexai	Hylis olexai	Tuckers Hat	11/07/2020	SU23161673	1 Count of Adult
beetle	Lathrobium brunnipes	Lathrobium (Lathrobium) brunnipes	Browse Plot	04/06/2020	SU23071692	1 Count of Adult Female
beetle	Litargus connexus	Litargus connexus	Tuckers Hat	04/06/2020	SU23031673	1 Count of Adult
beetle	Luperus longicornis	Luperus longicornis	Power Lines	11/07/2020	SU22991795	Present Count of Adult
beetle	Luperus longicornis	Luperus longicornis	Tuckers Hat	04/06/2020	SU23081678	Present Count of Adult

beetle	Luperus longicornis	Luperus longicornis	Tuckers Hat	04/06/2020	SU23031673	1 Count of Adult
beetle	Malachius bipustulatus	Malachite Beetle	Power Lines	04/06/2020	SU22991795	1 Count of Adult
beetle	Malthinus seriepunctatus	Malthinus seriepunctatus	Franchises Lodge	11/07/2020	SU23201764	Present Count of Adult
beetle	Malthinus seriepunctatus	Malthinus seriepunctatus	Pound Bottom Wood	04/06/2020	SU22081749	1 Count of Adult
beetle	Malthinus seriepunctatus	Malthinus seriepunctatus	Tuckers Hat	04/06/2020	SU23431658	1 Count of Adult
beetle	Malthodes fuscus	Malthodes fuscus	Tuckers Hat	04/06/2020	SU23191657	1 Count of Adult Male
beetle	Malthodes marginatus	Malthodes marginatus	Tuckers Hat	04/06/2020	SU23191657	1 Count of Adult
beetle	Malthodes minimus	Malthodes minimus	Tuckers Hat	04/06/2020	SU23191657	Present Count of Adult Male
beetle	Melanotus villosus	Melanotus villosus	Tuckers Hat	04/06/2020	SU23321655	1 Count of Adult Female
beetle	Micrelus ericae	Small Heather Weevil	Power Lines	11/07/2020	SU22991795	1 Count of Adult
beetle	Mycetophagus quadripustulatus	Mycetophagus quadripustulatus	Browse Plot	10/09/2020	SU227170	1 Count of Adult
beetle	Mycetophagus quadripustulatus	Mycetophagus quadripustulatus	Tuckers Hat	04/06/2020	SU23431658	1 Count of Adult
beetle	Mycetophagus quadripustulatus	Mycetophagus quadripustulatus	Tuckers Hat	04/06/2020	SU23431658	1 Count of Adult
beetle	Nalassus laevioctostriatus	Nalassus laevioctostriatus	Tuckers Hat	04/06/2020	SU23191657	Present Count of Adult
beetle	Notiophilus biguttatus	Notiophilus biguttatus	Tuckers Hat	10/09/2020	SU23431658	2 Count of Adult
beetle	Nudobius lentus	Nudobius lentus	Tuckers Hat	04/06/2020	SU23321655	1 Count of Adult
beetle	Nudobius lentus	Nudobius lentus	Tuckers Hat	04/06/2020	SU23321655	1 Count of Adult
beetle	Octotemnus glabriculus	Octotemnus glabriculus	Tuckers Hat	04/06/2020	SU23161673	1 Count of Adult
beetle	Oedemera lurida	Oedemera (Oedemera) Iurida	Power Lines	04/06/2020	SU22991795	1 Count of Adult
beetle	Oedemera lurida	Oedemera lurida	Power Lines	11/07/2020	SU22991795	Present Count of Adult
beetle	Oedemera nobilis	Swollen-thighed Beetle	Power Lines	04/06/2020	SU22991795	1 Count of Adult Male
beetle	Orchesia undulata	Orchesia undulata	Tuckers Hat	04/06/2020	SU23161673	1 Count of Adult
beetle	Orthotomicus Iaricis	Orthotomicus laricis	Power Lines	10/09/2020	SU22991795	1 Count of Adult
beetle	Paromalus flavicornis	Paromalus flavicornis	Tuckers Hat	04/06/2020	SU23321655	1 Count of Adult
beetle	Paromalus flavicornis	Paromalus flavicornis	Tuckers Hat	04/06/2020	SU23321655	2 Count of Adult
beetle	Philonthus sanguinolentus	Philonthus sanguinolentus	Tuckers Hat	10/09/2020	SU23191657	1 Count of Adult
beetle	Phloiotrya vaudoueri	Phloiotrya vaudoueri	Tuckers Hat	11/07/2020	SU23421657	1 Count of Adult
beetle	Platypus cylindrus	Pinhole Borer	Tuckers Hat	11/07/2020	SU23241667	1 Count of Adult
beetle	Podabrus alpinus	Podabrus alpinus	Tuckers Hat	04/06/2020	SU23161673	1 Count of Adult
beetle	Propylea quattuordecimpunctata	14-spot Ladybird	Power Lines	11/07/2020	SU22991795	Present Count of Adult
beetle	Pterostichus madidus	Rain-Clock	Tuckers Hat	10/09/2020	SU23191657	1 Count of Adult
beetle	Pterostichus niger	Pterostichus (Platysma) niger	Tuckers Hat	04/06/2020	SU23391649	1 Count of Adult
beetle	Pterostichus strenuus	Pterostichus strenuus	Tuckers Hat	10/09/2020	SU23431658	1 Count of Adult

beetle	Pycnomerus fuliginosus	Pycnomerus fuliginosus	Tuckers Hat	04/06/2020	SU23081678	1 Count of Adult
beetle	Pyrochroa coccinea	Black-headed Cardinal Beetle	Tuckers Hat	04/06/2020	SU23231665	1 Count of Adult
beetle	Rhagium bifasciatum	Rhagium (Hagrium) bifasciatum	Pound Bottom Wood	04/06/2020	SU22081749	1 Count of Elyton
beetle	Rhagium bifasciatum	Rhagium (Hagrium) bifasciatum	Pound Bottom Wood	04/06/2020	SU22271761	1 Count of Elyton
beetle	Rhagonycha fulva	Common Red Soldier Beetle	Tuckers Hat	11/07/2020	SU23191657	1 Count of Adult
beetle	Rhagonycha lignosa	Rhagonycha lignosa	Power Lines	04/06/2020	SU22991795	1 Count of Adult
beetle	Rhizophagus bipustulatus	Rhizophagus bipustulatus	Tuckers Hat	04/06/2020	SU23031673	2 Count of Adult
beetle	Rhizophagus dispar	Rhizophagus dispar	Tuckers Hat	04/06/2020	SU23321655	1 Count of Adult
beetle	Rutpela maculata	Rutpela maculata	Tuckers Hat	04/06/2020	SU23161673	1 Count of Adult
beetle	Salpingus planirostris	Salpingus planirostris	Tuckers Hat	04/06/2020	SU23081678	1 Count of Adult
beetle	Salpingus planirostris	Salpingus planirostris	Tuckers Hat	04/06/2020	SU23031673	1 Count of Adult
beetle	Sepedophilus littoreus	Sepedophilus littoreus	Tuckers Hat	10/09/2020	SU23051671	1 Count of Adult
beetle	Sepedophilus lusitanicus	Sepedophilus lusitanicus	Tuckers Hat	04/06/2020	SU23161673	1 Count of Adult
beetle	Silvanus bidentatus	Silvanus bidentatus	Tuckers Hat	04/06/2020	SU23081678	1 Count of Adult
beetle	Silvanus bidentatus	Silvanus bidentatus	Tuckers Hat	04/06/2020	SU23031673	1 Count of Adult
beetle	Silvanus unidentatus	Silvanus unidentatus	Tuckers Hat	04/06/2020	SU23081678	2 Count of Adult
beetle	Silvanus unidentatus	Silvanus unidentatus	Tuckers Hat	04/06/2020	SU23031673	2 Count of Adult
beetle	Sitona lineatus	Pea-leaf Weevil	Power Lines	10/09/2020	SU22991795	Present Count of Adult
beetle	Sitona striatellus	Sitona striatellus	Power Lines	04/06/2020	SU22991795	1 Count of Adult
beetle	Stenagostus rhombeus	Stenagostus rhombeus	Tuckers Hat	04/06/2020	SU23161673	1 Count of Larva
beetle	Stenus impressus	Stenus impressus	Tuckers Hat	10/09/2020	SU23431658	1 Count of Adult Male
beetle	Stictoleptura scutellata	Stictoleptura scutellata	Tuckers Hat	11/07/2020	SU23031673	1 Count of Adult
beetle	Strophosoma melanogrammum	Nut Leaf Weevil	Power Lines	04/06/2020	SU22991795	1 Count of Adult
beetle	Tachyporus hypnorum	Tachyporus hypnorum	Tuckers Hat	11/07/2020	SU23191657	Present Count of Adult
beetle	Taphrorychus bicolor	Taphrorychus bicolor	Franchises Lodge	11/07/2020	SU23201764	Present Count of Adult
beetle	Taphrorychus bicolor	Taphrorychus bicolor	Tuckers Hat	11/07/2020	SU23191657	Present Count of Adult
beetle	Tetrops praeustus	Plum Beetle	Power Lines	04/06/2020	SU23541797	1 Count of Adult
beetle	Thymalus limbatus	Thymalus limbatus	Tuckers Hat	04/06/2020	SU23301659	1 Count of Adult
beetle	Thymalus limbatus	Thymalus limbatus	Tuckers Hat	04/06/2020	SU23161673	3 Count of Adult
beetle	Thymalus limbatus	Thymalus limbatus	Tuckers Hat	10/09/2020	SU23191657	1 Count of Adult
beetle	Triplax aenea	Triplax aenea	Tuckers Hat	04/06/2020	SU23321655	1 Count of Adult
beetle	Triplax aenea	Triplax aenea	Tuckers Hat	04/06/2020	SU23321655	1 Count of Adult
beetle	Triplax aenea	Triplax aenea	Tuckers Hat	10/09/2020	SU23431658	1 Count of Adult

beetle	Triplax aenea	Triplax aenea	Tuckers Hat	10/09/2020	SU23191657	Present Count of Adult
beetle	Triplax lacordairii	Triplax lacordairii	Tuckers Hat	04/06/2020	SU23231665	4+ Count of Adult
beetle	Triplax lacordairii	Triplax lacordairii	Tuckers Hat	04/06/2020	SU23431658	4+ Count of Adult
beetle	Xantholinus longiventris	Xantholinus longiventris	Tuckers Hat	10/09/2020	SU23191657	1 Count of Adult
beetle	Xyleborinus saxesenii	Ambrosia Beetle	Tuckers Hat	04/06/2020	SU23031673	2 Count of Adult
bird	Accipiter gentilis	Goshawk	Pound Bottom Wood	04/06/2020	SU22121757	1 Count of Female
bird	Coccothraustes coccothraustes	Hawfinch	Power Lines	04/06/2020	SU23251800	2 Count of Flying
bird	Coccothraustes coccothraustes	Hawfinch	Tuckers Hat	04/06/2020	SU23321655	1 Count of Calling/vocalising
bird	Locustella naevia	Grasshopper Warbler	Power Lines	10/09/2020	SU23181796	1 Count of Adult
butterfly	Aphantopus hyperantus	Ringlet	Power Lines	11/07/2020	SU22991795	Present Count of Adult
butterfly	Gonepteryx rhamni	Brimstone	Franchises Common	11/07/2020	SU23641751	Present Count of Adult
butterfly	Lycaena phlaeas	Small Copper	Power Lines	10/09/2020	SU22991795	1 Count of Adult
butterfly	Maniola jurtina jurtina	Meadow Brown	Power Lines	04/06/2020	SU22991795	1 Count of Adult
butterfly	Melanargia galathea	Marbled White	Power Lines	11/07/2020	SU22991795	1 Count of Adult
butterfly	Ochlodes sylvanus	Large Skipper	Franchises Common	11/07/2020	SU23641751	Present Count of Adult
butterfly	Pararge aegeria	Speckled Wood	Franchises Common	10/09/2020	SU23641751	Present Count of Adult
butterfly	Pararge aegeria	Speckled Wood	Franchises Common	11/07/2020	SU23641751	Present Count of Adult
butterfly	Pieris brassicae	Large White	Power Lines	10/09/2020	SU22991795	Present Count of Adult
butterfly	Pieris napi	Green-veined White	Power Lines	11/07/2020	SU22991795	Present Count of Adult
butterfly	Pieris rapae	Small White	Franchises Common	10/09/2020	SU23641751	Present Count of Adult
butterfly	Polygonia c-album	Comma	Franchises Common	11/07/2020	SU23641751	1 Count of Adult
butterfly	Polyommatus icarus	Common Blue	Power Lines	10/09/2020	SU22991795	Present Count of Adult Male
butterfly	Pyronia tithonus	Gatekeeper	Power Lines	11/07/2020	SU22991795	Present Count of Adult
centipede	Lithobius variegatus	Lithobius variegatus	Tuckers Hat	04/06/2020	SU23081678	Present Count of Adult
centipede	Lithobius variegatus	Lithobius variegatus	Tuckers Hat	10/09/2020	SU23191657	Present Count of Adult
crustacean	Armadillidium vulgare	Common Pill Woodlouse	Power Lines	10/09/2020	SU22991795	Present Count of Adult
crustacean	Oniscus asellus	Common Shiny Woodlouse	Pound Bottom Wood	04/06/2020	SU22081749	Present Count of Adult
crustacean	Oniscus asellus	Common Shiny Woodlouse	Tuckers Hat	04/06/2020	SU23081678	Present Count of Adult
crustacean	Oniscus asellus	Common Shiny Woodlouse	Tuckers Hat	10/09/2020	SU23191657	Present Count of Adult
crustacean	Philoscia muscorum	Common Striped Woodlouse	Tuckers Hat	10/09/2020	SU23191657	Present Count of Adult
crustacean	Porcellio scaber	Common Rough Woodlouse	Tuckers Hat	04/06/2020	SU23191657	Present Count of Adult
crustacean	Porcellio scaber	Common Rough Woodlouse	Tuckers Hat	10/09/2020	SU23191657	Present Count of Adult
dragonfly	Anax imperator	Emperor Dragonfly	Power Lines	11/07/2020	SU22991795	Present Count of Adult

dragonfly	Cordulegaster boltonii	Golden-ringed Dragonfly	Power Lines	11/07/2020	SU22991795	1 Count of Adult
dragonfly	Orthetrum cancellatum	Black-tailed Skimmer	Power Lines	04/06/2020	SU22991795	1 Count of Adult Female
dragonfly	Sympetrum striolatum	Common Sympetrum	Power Lines	10/09/2020	SU22991795	Present Count of Adult
earwig	Forficula auricularia	Common Earwig	Tuckers Hat	04/06/2020	SU23161673	1 Count of Dead
earwig	Forficula auricularia	Common Earwig	Tuckers Hat	10/09/2020	SU23191657	Present Count of Adult
fungus	Amanita pantherina	Panthercap	Tuckers Hat	10/09/2020	SU23191657	Present Count of Fruiting
harvestman	Dicranopalpus	Dicranopalpus	Tuckers Hat	10/09/2020	SU23191657	Present Count of Adult
harvestman	Mitopus morio	Mitopus morio	Tuckers Hat	10/09/2020	SU23191657	Present Count of Adult
harvestman	Paroligolophus agrestis	Paroligolophus agrestis	Browse Plot	10/09/2020	SU23071692	Present Count of Adult
harvestman	Paroligolophus agrestis	Paroligolophus agrestis	Tuckers Hat	10/09/2020	SU23191657	Present Count of Adult
harvestman	Paroligolophus agrestis	Paroligolophus agrestis	Tuckers Hat	11/07/2020	SU23191657	Present Count of Adult
hymenopteran	Andricus kollari	Marble Gall	Power Lines	04/06/2020	SU22991795	1 Count of Gall
hymenopteran	Andricus kollari	Marble Gall	Power Lines	10/09/2020	SU22991795	Present Count of Gall
hymenopteran	Apis mellifera	Western Honey Bee	Power Lines	04/06/2020	SU22991795	Present Count of Adult
hymenopteran	Apis mellifera	Western Honey Bee	Power Lines	10/09/2020	SU22991795	Present Count of Adult
hymenopteran	Apis mellifera	Western Honey Bee	Power Lines	11/07/2020	SU22991795	Present Count of Adult
hymenopteran	Bombus hypnorum	Tree Bumblebee	Power Lines	04/06/2020	SU22991795	1 Count of Adult
hymenopteran	Bombus pascuorum	Common Carder Bee	Power Lines	04/06/2020	SU22991795	Present Count of Adult
hymenopteran	Bombus pascuorum	Common Carder Bee	Power Lines	10/09/2020	SU22991795	Present Count of Adult
hymenopteran	Bombus pascuorum	Common Carder Bee	Power Lines	11/07/2020	SU22991795	Present Count of Adult
hymenopteran	Formica fusca	Dusky Ant	Franchises Common	11/07/2020	SU23641751	Present Count of Adult
hymenopteran	Formica fusca	Dusky Ant	Power Lines	04/06/2020	SU22991795	Present Count of Adult
hymenopteran	Myrmica ruginodis	Myrmica ruginodis	Power Lines	10/09/2020	SU22991795	1 Count of Adult
hymenopteran	Myrmica ruginodis	Myrmica ruginodis	Tuckers Hat	04/06/2020	SU23031673	1 Count of Adult
hymenopteran	Neuroterus numismalis	Silk-Button Spangle Gall	Franchises Common	10/09/2020	SU23641751	Present Count of Gall
hymenopteran	Neuroterus quercusbaccarum	Currant Gall	Tuckers Hat	10/09/2020	SU23191657	Present Count of Gall
hymenopteran	Temnothorax nylanderi	Leptothorax nylanderi	Power Lines	10/09/2020	SU22991795	1 Count of Adult
hymenopteran	Vespa crabro	Hornet	Tuckers Hat	10/09/2020	SU23191657	Present Count of Adult
millipede	Cylindroiulus punctatus	Blunt-tailed Snake Millipede	Tuckers Hat	04/06/2020	SU23191657	Present Count of Adult
millipede	Cylindroiulus punctatus	Blunt-tailed Snake Millipede	Tuckers Hat	10/09/2020	SU23191657	Present Count of Adult
millipede	Polyxenus lagurus	Bristly Millipede	Tuckers Hat	11/07/2020	SU23191657	1 Count of Adult
mollusc	Cepaea hortensis	White-lipped Snail	Power Lines	10/09/2020	SU22991795	Present Count of Adult
mollusc	Monacha cantiana	Kentish Snail	Power Lines	10/09/2020	SU22991795	Present Count of Adult

mollusc	Oxychilus alliarius	Garlic Snail	Tuckers Hat	04/06/2020	SU23231665	1 Count of Adult
mollusc	Oxychilus alliarius	Garlic Snail	Tuckers Hat	10/09/2020	SU23191657	1 Count of Adult
moth	Agriphila straminella	Straw Grass-veneer	Power Lines	11/07/2020	SU22991795	Present Count of Adult
moth	Argyresthia conjugella	Apple-fruit Moth	Power Lines	04/06/2020	SU22991795	1 Count of Adult
moth	Bupalus piniaria	Bordered White	Pound Bottom Wood	04/06/2020	SU22081749	1 Count of Adult
moth	Carcina quercana	Long-horned Flat-body	Tuckers Hat	11/07/2020	SU23191657	1 Count of Adult
moth	Celypha lacunana	Common Marble	Power Lines	04/06/2020	SU22991795	1 Count of Adult
moth	Ditula angustiorana	Red-barred Tortrix	Franchises Common	04/06/2020	SU23641751	1 Count of Adult
moth	Endotricha flammealis	Rosy Tabby	Tuckers Hat	11/07/2020	SU23191657	Present Count of Adult
moth	Hypena crassalis	Beautiful Snout	Power Lines	11/07/2020	SU22991795	1 Count of Adult
moth	Micropterix calthella	Plain Gold	Franchises Common	04/06/2020	SU23641751	Present Count of Adult
moth	Nemophora degeerella	Yellow-barred Long-horn	Pound Bottom Wood	04/06/2020	SU22081749	1 Count of Adult
moth	Notocelia uddmanniana	Bramble Shoot Moth	Power Lines	04/06/2020	SU22991795	1 Count of Adult
moth	Orgyia antiqua	Vapourer	Pound Bottom Wood	04/06/2020	SU22081749	1 Count of Larva
moth	Orgyia antiqua	Vapourer	Tuckers Hat	11/07/2020	SU23191657	1 Count of Larva
moth	Paradarisa consonaria	Square Spot	Pound Bottom Wood	04/06/2020	SU22081749	1 Count of Adult
moth	Psyche casta	Common Sweep	Tuckers Hat	04/06/2020	SU23161673	1 Count of Adult
moth	Taleporia tubulosa	Brown Smoke	Tuckers Hat	10/09/2020	SU23191657	Present Count of Larvae
moth	Tyria jacobaeae	Cinnabar	Power Lines	04/06/2020	SU22991795	1 Count of Adult
orthopteran	Chorthippus brunneus	Field Grasshopper	Franchises Common	10/09/2020	SU23641751	Present Count of Singing
orthopteran	Chorthippus parallelus	Meadow Grasshopper	Power Lines	11/07/2020	SU22991795	Present Count of Adult
orthopteran	Leptophyes punctatissima	Speckled Bush-cricket	Browse Plot	04/06/2020	SU23071692	Present Count of Immature
orthopteran	Leptophyes punctatissima	Speckled Bush Cricket	Franchises Common	11/07/2020	SU23641751	Present Count of Adult
orthopteran	Meconema thalassinum	Oak Bush Cricket	Franchises Common	11/07/2020	SU23641751	Present Count of Adult
orthopteran	Metrioptera roeselii	Roesel's Bush-cricket	Power Lines	04/06/2020	SU22991795	Present Count of Nymph
orthopteran	Metrioptera roeselii	Roesel's Bush-cricket	Power Lines	10/09/2020	SU22991795	Present Count of Adult
orthopteran	Metrioptera roeselii	Roesel's Bush-cricket	Power Lines	11/07/2020	SU22991795	Present Count of Singing
orthopteran	Nemobius sylvestris	Wood Cricket	Franchises Common	10/09/2020	SU23641751	Present Count of Singing
orthopteran	Nemobius sylvestris	Wood Cricket	Power Lines	11/07/2020	SU233180	Present Count of Singing
orthopteran	Nemobius sylvestris	Wood Cricket	Tuckers Hat	10/09/2020	SU22931672	Present Count of Singing
orthopteran	Omocestus viridulus	Common Green Grasshopper	Franchises Common	11/07/2020	SU23641751	Present Count of Adult
orthopteran	Omocestus viridulus	Common Green Grasshopper	Power Lines	10/09/2020	SU22991795	Present Count of Adult
spider	Araneus angulatus	Araneus angulatus	Franchises Common	04/06/2020	SU23511793	1 Count of Immature

spider	Araneus angulatus	Araneus angulatus	Tuckers Hat	04/06/2020	SU23031673	1 Count of Immature
spider	Araneus diadematus	Garden Orb-Web Spider	Franchises Common	10/09/2020	SU23641751	Present Count of Adult Male
spider	Clubiona corticalis	Clubiona corticalis	Franchises Common	04/06/2020	SU23371757	1 Count of Adult Female
spider	Diaea dorsata	Diaea dorsata	Power Lines	04/06/2020	SU22991795	1 Count of Adult Female
spider	Diaea dorsata	Diaea dorsata	Tuckers Hat	10/09/2020	SU23191657	Present Count of Adult
spider	Diaea dorsata	Diaea dorsata	Tuckers Hat	11/07/2020	SU23191657	Present Count of Taxon
spider	Dictyna latens	Dictyna latens	Power Lines	04/06/2020	SU22991795	Present Count of Adult Male
spider	Episinus maculipes	Episinus maculipes	Franchises Common	04/06/2020	SU23461784	1 Count of Immature
spider	Erigone dentipalpis	Erigone dentipalpis	Power Lines	10/09/2020	SU22991795	1 Count of Adult Male; 1 Count of A
spider	Ero furcata	Ero furcata	Power Lines	10/09/2020	SU22991795	1 Count of Adult Male
spider	Euophrys frontalis	Euophrys frontalis	Power Lines	10/09/2020	SU22991795	Present Count of Taxon
spider	Evarcha arcuata	Evarcha arcuata	Power Lines	10/09/2020	SU23191798	1 Count of present
spider	Evarcha falcata	Evarcha falcata	Franchises Common	10/09/2020	SU23641751	Present Count of Taxon
spider	Gibbaranea gibbosa	Gibbaranea gibbosa	Tuckers Hat	10/09/2020	SU23191657	Present Count of Taxon
spider	Gonatium rubens	Gonatium rubens	Power Lines	10/09/2020	SU22991795	1 Count of Adult Female
spider	Harpactea hombergi	Harpactea hombergi	Tuckers Hat	04/06/2020	SU23161673	Present Count of Adult
spider	Harpactea hombergi	Harpactea hombergi	Tuckers Hat	10/09/2020	SU23191657	Present Count of Taxon
spider	Hypomma cornutum	Hypomma cornutum	Power Lines	04/06/2020	SU22991795	1 Count of Adult Female
spider	Hyptiotes paradoxus	Triangle Spider	Tuckers Hat	10/09/2020	SU23131671	1 Count of Immature
spider	Labulla thoracica	Labulla thoracica	Tuckers Hat	10/09/2020	SU23191657	1 Count of present
spider	Lathys humilis	Lathys humilis	Power Lines	10/09/2020	SU22991795	Present Count of Taxon
spider	Lathys humilis	Lathys humilis	Tuckers Hat	04/06/2020	SU23081678	1 Count of present
spider	Linyphia triangularis	Linyphia triangularis	Franchises Common	11/07/2020	SU23641751	Present Count of Adult
spider	Linyphia triangularis	Linyphia triangularis	Tuckers Hat	10/09/2020	SU23191657	Present Count of Adult Female
spider	Mangora acalypha	Mangora acalypha	Franchises Common	10/09/2020	SU23641751	Present Count of Taxon
spider	Mangora acalypha	Mangora acalypha	Power Lines	11/07/2020	SU22991795	Present Count of Taxon
spider	Metellina segmentata	Metellina segmentata	Browse Plot	10/09/2020	SU23071692	Present Count of Adult
spider	Metellina segmentata	Metellina segmentata	Tuckers Hat	10/09/2020	SU23191657	Present Count of Adult
spider	Micrommata virescens	Green Spider	Franchises Common	11/07/2020	SU23501792	1 Count of Female
spider	Microneta viaria	Microneta viaria	Tuckers Hat	10/09/2020	SU23191657	1 Count of Adult Male
spider	Misumena vatia	Misumena vatia	Power Lines	04/06/2020	SU22991795	1 Count of Immature
spider	Monocephalus fuscipes	Monocephalus fuscipes	Tuckers Hat	10/09/2020	SU23191657	1 Count of Adult Female
spider	Neon reticulatus	Neon reticulatus	Franchises Common	10/09/2020	SU23641751	1 Count of Adult Male

spider	Neriene peltata	Neriene peltata	Tuckers Hat	04/06/2020	SU23081678	1 Count of Adult Male
spider	Nigma puella	Nigma puella	Power Lines	04/06/2020	SU22981798	1 Count of Adult Female
spider	Nuctenea umbratica	Walnut Orb-Weaver Spider	Power Lines	10/09/2020	SU22991795	Present Count of Taxon
spider	Nuctenea umbratica	Walnut Orb-Weaver Spider	Power Lines	11/07/2020	SU22991795	Present Count of Taxon
spider	Pachygnatha degeeri	Pachygnatha degeeri	Franchises Common	10/09/2020	SU23641751	Present Count of Adult
spider	Pardosa saltans	Pardosa saltans	Power Lines	04/06/2020	SU22991795	1 Count of Adult Female
spider	Pisaura mirabilis	Nursery-Web Spider	Pound Bottom Wood	04/06/2020	SU22081749	1 Count of Adult Female
spider	Pisaura mirabilis	Nursery-Web Spider	Power Lines	10/09/2020	SU22991795	Present Count of Taxon
spider	Platnickina tincta	Theridion tinctum	Tuckers Hat	04/06/2020	SU23191657	1 Count of Adult
spider	Segestria senoculata	Segestria senoculata	Power Lines	04/06/2020	SU22991795	1 Count of Female
spider	Segestria senoculata	Segestria senoculata	Tuckers Hat	10/09/2020	SU23191657	1 Count of Immature
spider	Sibianor aurocinctus	Sibianor aurocinctus	Power Lines	10/09/2020	SU23221799	1 Count of Adult Male
spider	Sibianor aurocinctus	Sibianor aurocinctus	Power Lines	10/09/2020	SU22531793	1 Count of Adult Male
spider	Simitidion simile	Simitidion simile	Power Lines	10/09/2020	SU22991795	Present Count of Adult
spider	Tenuiphantes zimmermanni	Lepthyphantes zimmermanni	Tuckers Hat	10/09/2020	SU23191657	1 Count of Adult Male
spider	Theridion varians	Theridion varians	Power Lines	04/06/2020	SU22991795	1 Count of Adult Male
spider	Thyreosthenius parasiticus	Thyreosthenius parasiticus	Tuckers Hat	04/06/2020	SU23191657	1 Count of Adult Female
spider	Zilla diodia	Zilla diodia	Tuckers Hat	04/06/2020	SU23161673	1 Count of Adult Female
spider	Zilla diodia	Zilla dioidia	Tuckers Hat	10/09/2020	SU23191657	Present Count of Taxon
spider	Zora spinimana	Zora spinimana	Browse Plot	10/09/2020	SU23071692	Present Count of Taxon
spider	Zora spinimana	Zora spinimana	Franchises Common	11/07/2020	SU23641751	Present Count of Taxon
springtail	Orchesella cincta	Orchesella cincta	Tuckers Hat	10/09/2020	SU23191657	Present Count of Adult
springtail	Orchesella villosa	Orchesella villosa	Tuckers Hat	04/06/2020	SU23081678	Present Count of Adult
springtail	Orchesella villosa	Orchesella villosa	Tuckers Hat	10/09/2020	SU23191657	Present Count of Adult
tick	Ixodes ricinus	Castor Bean Tick	Tuckers Hat	04/06/2020	SU23191657	Present Count of Adult
true bug	Allygus mixtus	Allygus mixtus	Power Lines	11/07/2020	SU22991795	Present Count of Adult
true bug	Aneurus avenius	Aneurus avenius	Power Lines	04/06/2020	SU22991795	1 Count of Adult Female
true bug	Aneurus avenius	Aneurus avenius	Tuckers Hat	04/06/2020	SU23031673	1 Count of Adult Female
true bug	Aphrophora alni	Aphrophora alni	Power Lines	10/09/2020	SU22991795	Present Count of Adult
true bug	Aradus depressus	Aradus depressus	Tuckers Hat	04/06/2020	SU23031673	1 Count of Adult
true bug	Athysanus argentarius	Athysanus argentarius	Power Lines	11/07/2020	SU22991795	1 Count of Adult
true bug	Blepharidopterus angulatus	Black-Kneed Apple Capsid	Power Lines	10/09/2020	SU22991795	1 Count of Adult
true bug	Bryocoris pteridis	Bryocoris pteridis	Tuckers Hat	10/09/2020	SU23191657	1 Count of Adult

true bug	Campyloneura virgula	Campyloneura virgula	Tuckers Hat	11/07/2020	SU23191657	1 Count of Adult
true bug	Cicadella viridis	Cicadella viridis	Franchises Common	10/09/2020	SU23641751	Present Count of Adult
true bug	Cicadella viridis	Cicadella viridis	Franchises Common	11/07/2020	SU23641751	Present Count of Adult
true bug	Conomelus anceps	Conomelus anceps	Power Lines	11/07/2020	SU22991795	Present Count of Adult
true bug	Conomelus anceps	Conomelus anceps	Tuckers Hat	10/09/2020	SU23191657	Present Count of Adult
true bug	Corizus hyoscyami	Corizus hyoscyami	Franchises Common	10/09/2020	SU23641751	1 Count of Adult
true bug	Cymus melanocephalus	Cymus melanocephalus	Tuckers Hat	04/06/2020	SU23161673	Present Count of Adult
true bug	Ditropis pteridis	Ditropis pteridis	Tuckers Hat	04/06/2020	SU23191657	Present Count of Adult
true bug	Drymus (Sylvadrymus) brunneus	Drymus (Sylvadrymus) brunneus	Tuckers Hat	10/09/2020	SU23191657	1 Count of Adult
true bug	Eurygaster testudinaria	Tortoise Bug	Power Lines	11/07/2020	SU22991795	Present Count of Adult
true bug	Graphocephala fennahi	Rhododendron Leafhopper	Power Lines	10/09/2020	SU22991795	Present Count of Adult
true bug	Heterogaster urticae	Nettle Groundbug	Power Lines	04/06/2020	SU22991795	Present Count of Adult
true bug	Heterotoma planicornis	Heterotoma planicornis	Power Lines	04/06/2020	SU22991795	Present Count of Immature
true bug	Himacerus apterus	Tree Damsel Bug	Tuckers Hat	10/09/2020	SU23191657	1 Count of Adult
true bug	lassus lanio	lassus lanio	Power Lines	11/07/2020	SU22991795	Present Count of Adult
true bug	Kleidocerys resedae	Birch Catkin Bug	Power Lines	04/06/2020	SU22991795	Present Count of Adult
true bug	Kleidocerys resedae	Birch Catkin Bug	Power Lines	10/09/2020	SU22991795	Present Count of Adult
true bug	Liocoris tripustulatus	Liocoris tripustulatus	Power Lines	11/07/2020	SU22991795	Present Count of Adult
true bug	Loricula pselaphiformis	Loricula pselaphiformis	Tuckers Hat	04/06/2020	SU23081678	1 Count of Adult Female
true bug	Lygus pratensis	Lygus pratensis	Power Lines	10/09/2020	SU22991795	1 Count of Adult
true bug	Nabis rugosus	Common Damselbug	Browse Plot	10/09/2020	SU23071692	Present Count of Adult
true bug	Nysius huttoni	Nysius huttoni	Power Lines	10/09/2020	SU22991795	Present Count of Adult
true bug	Pentatoma rufipes	Red-legged Shieldbug	Tuckers Hat	04/06/2020	SU23161673	Present Count of Immature
true bug	Pentatoma rufipes	Red-legged Shieldbug	Tuckers Hat	10/09/2020	SU23191657	1 Count of Dead
true bug	Peritrechus geniculatus	Peritrechus geniculatus	Power Lines	10/09/2020	SU22991795	Present Count of Adult
true bug	Phytocoris longipennis	Phytocoris (Phytocoris) longipennis	Franchises Lodge	11/07/2020	SU23201764	1 Count of Adult
true bug	Piezodorus lituratus	Gorse Shieldbug	Power Lines	04/06/2020	SU22991795	1 Count of Adult
true bug	Plagiognathus arbustorum	Plagiognathus (Plagiognathus) arbustorur	Power Lines	04/06/2020	SU22991795	Present Count of Adult
true bug	Plagiognathus arbustorum	Plagiognathus (Plagiognathus) arbustorur	Power Lines	11/07/2020	SU22991795	Present Count of Adult
true bug	Stenodema laevigata	Stenodema (Stenodema) laevigata	Power Lines	10/09/2020	SU22991795	Present Count of Adult
true bug	Stenotus binotatus	Timothy Grassbug	Power Lines	11/07/2020	SU22991795	Present Count of Adult
true bug	Stygnocoris sabulosus	Stygnocoris sabulosus	Franchises Common	10/09/2020	SU23641751	Present Count of Adult
true bug	Xylocoris cursitans	Xylocoris (Xylocoris) cursitans	Franchises Lodge	11/07/2020	SU23201764	Present Count of Adult

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true bug	Xylocoris cursitans	Xylocoris (Xylocoris) cursitans	Tuckers Hat	10/09/2020	SU23431658	1 Count of Adult
true fly	Chrysopilus cristatus	Black Snipefly	Browse Plot	04/06/2020	SU23071692	1 Count of Adult Female
true fly	Dioctria baumhaueri	Stripe-legged Robberfly	Tuckers Hat	04/06/2020	SU23081678	1 Count of Adult
true fly	Dioctria linearis	Small Yellow-legged Robberfly	Franchises Lodge	11/07/2020	SU23201764	1 Count of Adult
true fly	Episyrphus balteatus	Marmalade Hoverfly	Franchises Common	10/09/2020	SU23641751	Present Count of Adult
true fly	Eristalis pertinax	Eristalis pertinax	Franchises Common	10/09/2020	SU23641751	Present Count of Adult
true fly	Eupeodes corollae	Eupeodes corollae	Franchises Lodge	11/07/2020	SU23201764	1 Count of Adult
true fly	Helophilus pendulus	Helophilus pendulus	Franchises Lodge	11/07/2020	SU23201764	1 Count of Adult
true fly	Helophilus pendulus	Helophilus pendulus	Franchises Common	11/07/2020	SU23641751	Present Count of Adult
true fly	Imantimyia albiseta	Loxocera albiseta	Franchises Lodge	11/07/2020	SU23201764	1 Count of Adult
true fly	Leptogaster cylindrica	Striped Slender Robberfly	Franchises Lodge	11/07/2020	SU23201764	1 Count of Adult
true fly	Mesembrina meridiana	Mesembrina meridiana	Tuckers Hat	10/09/2020	SU23191657	1 Count of Adult
true fly	Myathropa florea	Myathropa florea	Franchises Lodge	11/07/2020	SU23201764	1 Count of Adult
true fly	Nowickia ferox	Nowickia ferox	Power Lines	11/07/2020	SU22991795	Present Count of Adult
true fly	Platycheirus albimanus	Platycheirus albimanus	Franchises Lodge	11/07/2020	SU23201764	1 Count of Adult
true fly	Rhagio lineola	Small Fleck-winged Snipefly	Franchises Lodge	11/07/2020	SU23201764	1 Count of Adult
true fly	Rhagio scolopaceus	Downlooker Snipefly	Tuckers Hat	04/06/2020	SU23191657	1 Count of Adult
true fly	Rhagio scolopaceus	Downlooker Snipefly	Tuckers Hat	11/07/2020	SU23191657	Present Count of Adult
true fly	Sericomyia silentis	Sericomyia silentis	Browse Plot	04/06/2020	SU23071692	2 Count of Adult
true fly	Taxomyia taxi	Taxomyia taxi	Tuckers Hat	04/06/2020	SU23161673	Present Count of Gall
true fly	Taxomyia taxi	Taxomyia taxi	Tuckers Hat	10/09/2020	SU23191657	Present Count of Gall
true fly	Tipula paludosa	Tipula paludosa	Power Lines	10/09/2020	SU22991795	Present Count of Adult
true fly	Tipula selene	Tipula selene	Tuckers Hat	04/06/2020	SU23161673	1 Count of Adult Female
true fly	Xylota abiens	Xylota abiens	Tuckers Hat	11/07/2020	SU23191657	1 Count of Adult
true fly	Xylota segnis	Xylota segnis	Power Lines	10/09/2020	SU22991795	1 Count of Adult
true fly	Xylota segnis	Xylota segnis	Tuckers Hat	11/07/2020	SU23191657	Present Count of Adult
true fly	Xylota sylvarum	Xylota sylvarum	Tuckers Hat	04/06/2020	SU23361655	1 Count of Adult
true fly	Xylota sylvarum	Xylota sylvarum	Tuckers Hat	11/07/2020	SU23191657	Present Count of Adult