

Pigstrood Meadows repeat invertebrate survey 2023

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Fig. 1. *Diachromus germanus*.

0 - Summary

Pigstrod Meadow consists of a series of neutral meadows and floodplain grazing marsh with rich hedgerows situated along the south edge of the eastern Rother in East Sussex. Clearly the site has had input historically and some reseeded in the last decade has had mixed successes. Some areas of the site were grazed with sheep over the summer of 2023, rather than the more ideal cattle for summer grazing but the limited extent of the grazing helped to negate this impact. The site is 21.4 ha in extent.

In order to assess the biodiversity interest of the site, an invertebrate survey was set up and implemented by the author in 2018 to act as an inventory for what was there and a baseline for assessing any changes in habitat management. A standardised methodology was used in order to make the survey easily repeatable in the future. This methodology was further refined in 2023 to bring the survey in-line with other surveys and allow for a greater level of standardisation in the future.

The site was visited on three occasions being May, June and July to maximise the number of species recorded and align the visits as closely as possible to the dates of the 2018 survey.

On each visit, the methods appropriate for the season and the micro-habitats available were used. Primarily sweeping, suction-sampling and beating were the main methods used as was active searching of flowers, stalking dragonflies and butterflies and listening out for Orthoptera. The ponds in the middle of the central field were almost absent by 2023 and although recorded, no attempt to use a pond net was made due to the lack of water.

A total of 2058 records of 528 species were made in 2023, these totals are both much higher than the 654 records of 363 species recorded in 2018. The huge increase in records is almost certainly down to the change in methodology (common species were recorded 10 times in the 2023 methodology and technically they could have been recorded 30 times in total across the three visits), while the increase in species-richness is a result of several different factors, including positive changes in management on the site.

A total of 161 species of beetle were recorded, with nine of these having some form of conservation status. Two Nationally Rare carabids were found to be new to the site, the Vulnerable *Diachromus germanus* found in one field while the Near Threatened *Amara strenua* was found in five of the ten fields. The large Nationally Scarce soldier beetle *Cantharis fusca* was recorded in six fields. All these are large, charismatic species that would not have been overlooked in 2018 and are expected to be recent colonists to the area.

Spiders increased to 101 species in 2023, with eight of these having conservation status. A big increase from the 40 species recorded in 2018, this likely to be as much about a skill increase as it was an improvement in the site. The spread of the saltmarsh specialist *Enoplognatha mordax* inland over the last five years is yet another species that would not have been present in 2018 but is more a measure of national changes in invertebrates due to climate change and other factors.

The Endangered fly *Acinia corniculata* was recorded in Further Five Acres. This species feeds on Knapweed and this is the first time the author has encountered this species. Neither Long-horned Bee or Dingy Skipper were recorded in 2023.

The Pantheon SQI (a measure of invertebrate quality) for the site rose from 111 in 2018 to 119 in 2023 but this was still below the author's rolling average of 124.1, while the proportion of species with conservation status has remained very similar at 3.8%. This

disparity shows that although the number of rare species is fairly stable, the actual species that were found tended to be scarcer in 2023 than in 2018.

Comparative analysis between the compartments showed that the sheep-grazed fields had fewer species than those that were not summer-grazed with sheep. Further Five Acres held the most species and the joint most species with status with Upper Brook. The Riverside Compartment held the least species with status, showing how important management is for maintaining and enhancing good biodiversity habitat.

Accumulatively when combing both years' data, a total of 649 species have been recorded, with just 26 of these having some form of conservation status of 4.0%.

The site has clearly improved over the past five years, with a reduction in the intensity of grazing over the summer likely having the greatest positive impact on invertebrate diversity since the 2018 survey season. Hedgerows have also clearly thickened up in places with an increase in scrub edge species. The increase in numbers of beetles in part shows an improvement in phytophagous species. The author has also improved since 2018, especially in arachnology. Many species are also spreading in range, in part down to climate change, with invertebrate species-richness naturally increasing over the time period. A slight decline in bees is more likely down to poor seasons in recent years, than it was a decline in flowers on site, which were clearly more prolific in 2023 than they were in 2018.

1 - Introduction

1.1 - Pigstrood

The site consists of a series of neutral meadows and floodplain grazing marsh with rich hedgerows situated along the south edge of the eastern Rother in East Sussex. Clearly the site has had input historically and some reseeding recently has had mixed successes. The site is 21.4 ha in extent.

The following text was kindly provided by Dr Angela Brennan, Estate Ecologist for the 2018 report and is included again here for completeness.

"The estate bought the nine fields at Pigstrood at the end of 2013. They had been managed for many years as cattle pasture and were overgrazed. The two fields to the south, Lime Field and Further Five Acres, had been managed for hay, with strips over-sown with a wildflower mix about 5 years previously. The density of wild flowers and diversity of the sward in these two fields was still fairly poor, with the odd line or clump of common knapweed and oxeye daisy indicating where the strips were. The central field, Alder Field, had been over-sown with a coarse grass fodder mix some years previous to the purchase (exact time unknown). This field has two naturally wet areas, and on the 1899 map, a symbol for well or water is marked roughly between the two.

The lower three fields, Upper, Alder and Great Brooks, flood when there is a very wet winter. The stream has been dredged at some point, which has created a bund along the stream side. This affects flooding and run off on Alder and Great Brooks. Ditches run next to or along the hedge lines and there is one extant pond on the extreme east boundary. Another pond in the south west corner of Boggy Brook has not held water since we've owned the land.

The field boundaries were approximately where they were on the First Edition 1870's OS map, although Lime Field was made smaller sometime in the 1980's and has a young hedge on the west side. The hedge between Great and Pigstrood Meadows was grubbed out and replaced by previous owners probably around the same time. We replanted a lost hedge between Alder and Great Brook in 2015.

When we acquired the land in 2013 we reduced the intensity of grazing (still with cattle) and maintained the top two fields for hay with aftermath grazing.

We pulled in the fence lines, particularly around field corners, to allow the hedges to grow out and establish more scrub. In 2015, the land was entered into the Higher Countryside Stewardship scheme and we fenced out riparian strips along the length of the river, which prevented access by the cattle. The scheme also enabled us to sow the two hay meadows with Wealden meadow mix. This was undertaken in early autumn 2017. The sward has improved slightly, although it is still in early stages

We have managed the fields by cattle grazing between May and October. From time to time, we have hayed some of the fields and aftermath grazed. The hedges have different cutting regimes, some cut annually, others biennially or every three years, and others left to grow longer. We have created scrapes in Upper and Alder Brooks to retain flood water for longer and create rushy habitat for snipe. In Alder Field, we have dug small ponds downhill of the wet flushes to try and retain the water in these areas. One holds water much of the year, while the other is more seasonal.

There are two barn owl boxes on the site and barn owls are regularly observed. We know they breed in the box between Upper and Alder Brook. Other birds of note that have been observed on Pigstrood are grasshopper warbler, lesser spotted woodpecker, skylark,

cuckoo, yellowhammer, bullfinch and turtle dove. In winter, snipe are fairly abundant in the wet fields and ditches. Hares use the site in low numbers and there are abundant deer.

We do not use fertilisers, herbicides or pesticides anywhere on the estate. The cattle are not treated with wormers or any other pharmaceuticals while on our land."

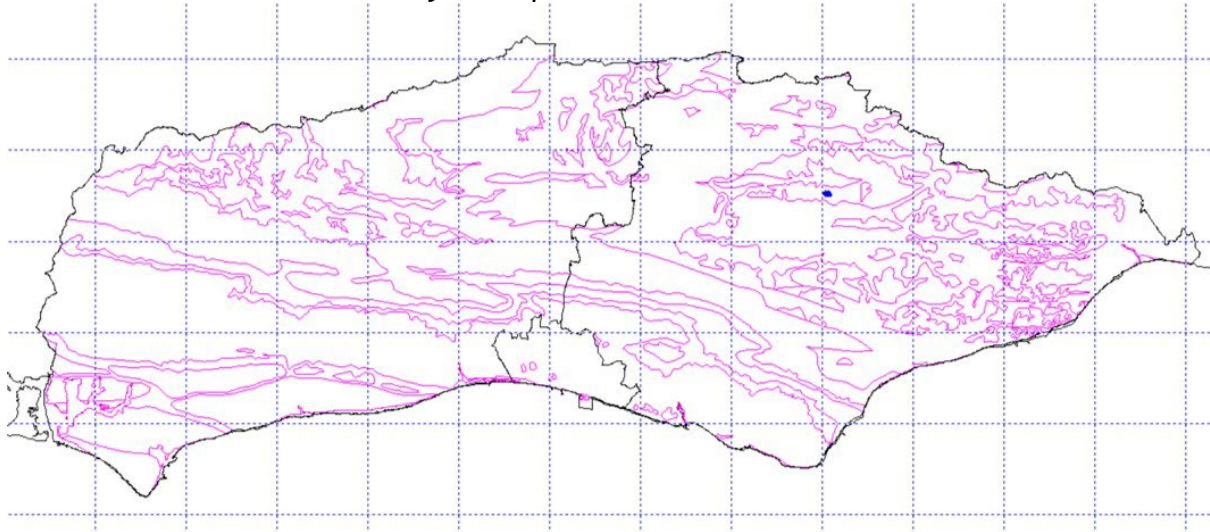


Fig.2. Showing the location of Pigstrood in a Sussex context.

1.2 - The survey

In order to assess the biodiversity interest of the site, an invertebrate survey was set up and implemented by the author in 2018 to act as an inventory for what was there and a baseline for assessing any changes in habitat management over time. A standardised methodology was used in order to make the survey easily repeatable in the future. This methodology was further refined in 2023 to bring the survey in-line with other surveys and allow for a greater level of standardisation in the future and between compartments.

1.3 Recording

The site sits to extreme west of hectad TQ62 in the High Weald of East Sussex (VC14). All records will be passed to the Sussex Biodiversity Record Centre at the end of the financial year (March 2024).

1.4 - The season

After the warmest June on record, and a six-week absence of rain in the spring, July turned very cool and wet. This really benefited invertebrates and after a slow start, things did pick up by late summer. Hawthorn blossom was spectacular and early in 2023.

2 - Methodologies

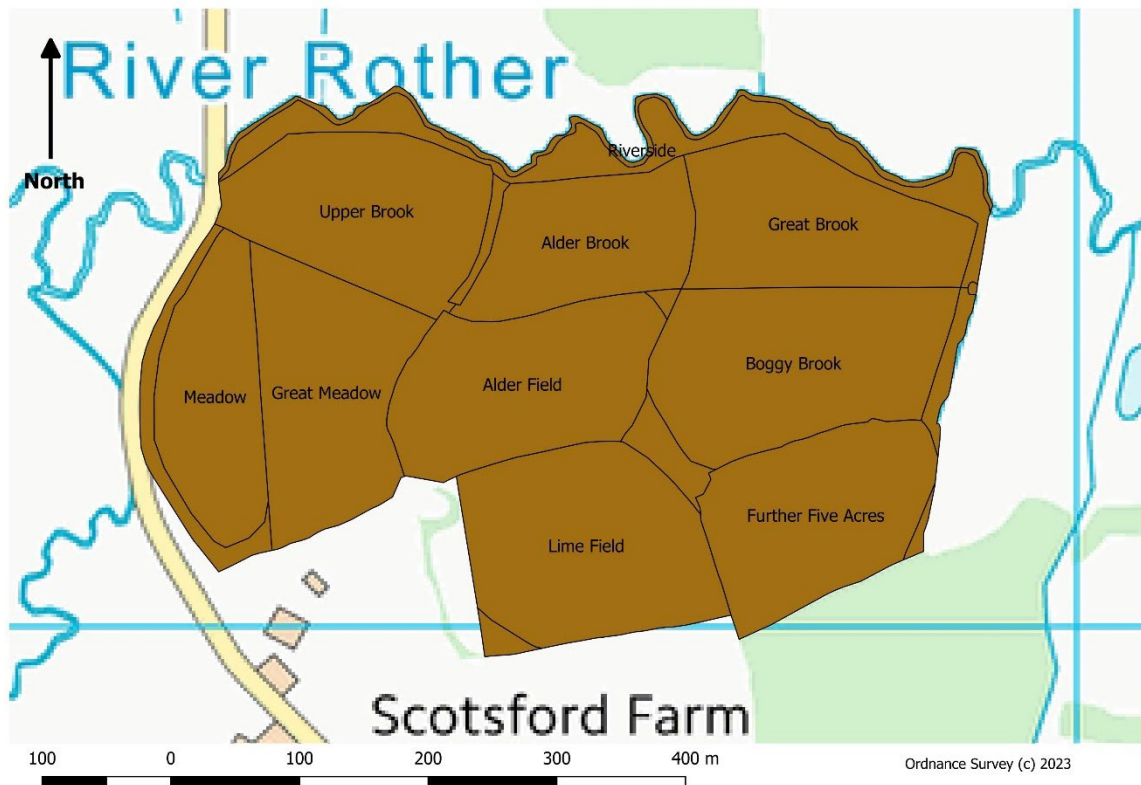


Fig. 3. Location of the ten recording compartments.

On each visit, the methods pertinent to the season are used, being: sweeping, beating, suction-sampling, grubbing, searching flowers, searching bare ground, turning logs etc. ten individual comparable site lists were created on the first visit (comprising one overall site list). These were then added to on each subsequent visit.

All records were recorded to a generic grid reference at the centre of each field (a site centroid). All records will be passed in time to the Sussex Records Centre. Any especially rare species recorded on the site will be recorded to a higher resolution using an eight-figure grid reference.

The site was visited on the following three occasions:

- 4th May 2023
- (19th May) & 9th June 2023 (a partial visit to catch the Hawthorn blossom was made in late May)
- 21st July 2023

3 - Results

3.1 - Summary of findings

A total of 2058 records of 528 species were made in 2023, these totals are both much higher than the 654 records of 363 species recorded in 2018. The huge increase in records is almost certainly down to the change in methodology (common species were recorded 10 times in the 2023 methodology and technically they could have been recorded 30 times in total across the three visits). The mean number of species recorded across all of the author's three-visit surveys is 453.7 species, showing that Pigstrood is significantly higher than this.

The increase in the number of species is in part down to an improvement in the site (the site was very overgrazed in 2018) but is also in part down to an increase in the author's skillset. This is especially so for spiders.

In Table 1 below, the change in the number of species in each invertebrate order is displayed.

Tab. 1. Breakdown of the main invertebrate orders recorded in both years.

Order	2018	2023	Change
Coleoptera	102	161	+59
Hemiptera	72	85	+13
Araneae	40	102	+62
Diptera	38	47	+9
Lepidoptera - moths	30	38	+8
Hymenoptera	25	24	-1
Lepidoptera - butterflies	18	21	+3
Odonata	10	8	-2
Orthoptera	9	9	0
Mollusca	6	9	+3
Neuroptera	3	3	0
Opiliones	3	3	0
Crustacea	2	3	+1
Trichoptera	2	7	+5
Dermaptera	1	1	0
Springtails	1	2	+1
Ephemeroptera	1	0	-1
Mecoptera	0	1	+1
Mites	0	2	+2
Megaloptera	1	0	-1
Plecoptera	0	1	+1
Total	363	528	+165

Beetles were again the most speciose group with 161 species recorded, a huge increase on 2018 of 59 species that is not easily explained beyond that most of the site had lush vegetation throughout the year, plants were allowed to flower and develop foliage which was not the case over much of the site in 2018.

There was a slight increase in bugs but a large increase in spiders. The author spent 2019, 2020 & 2021 year-listing spiders and has now seen more spiders and made more records of spiders in the UK, than anyone because of this. This has resulted in a levelling up in skills.

However, there are a number of spiders that have colonised the site in recent years too and the proportion of scarce spider species has also increased.

Lepidoptera were slightly up but not significantly and the only large invertebrate order to decrease on 2018 was the Hymenoptera with an insignificant reduction of one species. Of the small invertebrate orders, Trichoptera species rose from two to seven in 2023. As these animals have aquatic early stages, it is not clear why they were so much better represented in 2023 than in 2018.

3.2 - Species with conservation status

Twenty species with conservation were recorded in 2023.

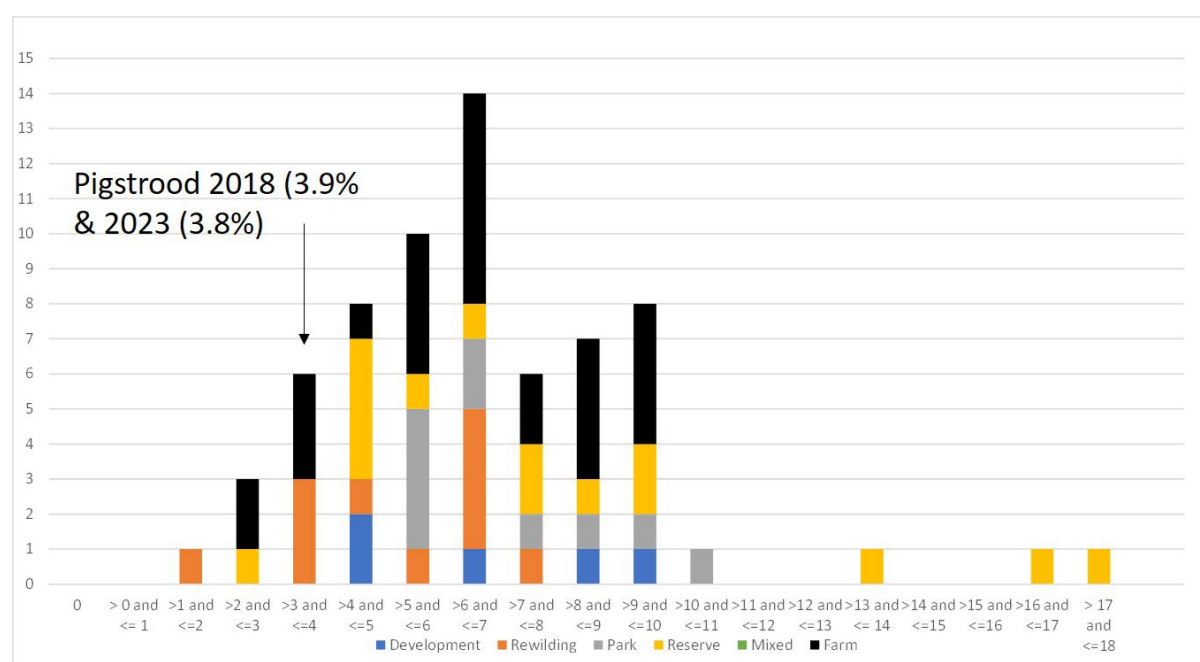


Fig. 4. Frequency distribution of the 'proportions of species with conservation status' from the author's recent surveys, colour-coded by site type (here Pigstrood was classed as 'rewilding').

The proportion of species with conservation status in 2023 was 3.8%, almost the same as that in 2018 of 3.9%. Both scores are significantly lower than the author's rolling average of 6.7%. The second peak in figure 4 above in the 9 to 10% category is caused by an increase in surveying on Downland farms and the skewed slope to the right is caused by several exceptionally performing nature reserves.

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 ten-kilometre 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 not 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.”

Tab. 2. All 26 species with conservation status recorded in both 2018 & 2023 and the years in which they were recorded.

Order	Species	2018	2023	Status
Aculeate	<i>Eucera longicornis</i>	1	0	Na & S.41
Aculeate	<i>Lasioglossum malachurum</i>	0	1	(Nb)
Araneae	<i>Argenna subnigra</i>	0	1	NS
Araneae	<i>Agyneta mollis</i>	0	1	NR, NT & S.41
Araneae	<i>Enoplognatha mordax</i>	0	1	NS
Araneae	<i>Marpissa muscosa</i>	1	1	NS
Araneae	<i>Pardosa tenuipes</i>	0	1	NS
Araneae	<i>Sibianor aurocinctus</i>	1	1	NS
Araneae	<i>Styloctetor compar</i>	0	1	NS

Araneae	<i>Trematocephalus cristatus</i>	0	1	NS
Coleoptera	<i>Acupalpus exiguus</i>	1	1	NS
Coleoptera	<i>Amara strenua</i>	0	1	NR, NT
Coleoptera	<i>Aulacobaris lepidii</i>	0	1	Na
Coleoptera	<i>Cantharis fusca</i>	0	1	NS
Coleoptera	<i>Diachromus germanus</i>	0	1	NR, VU?
Coleoptera	<i>Hypera meles</i>	0	1	(Na)
Coleoptera	<i>Mantura obseleta</i>	1	0	NS
Coleoptera	<i>Polydrusus flavipes</i>	1	0	Nb
Coleoptera	<i>Protapion difforme</i>	1	1	Nb
Coleoptera	<i>Protapion varipes</i>	1	1	Nb
Coleoptera	<i>Rugilus geniculatus</i>	1	0	IUCN Indeterminate
Heteroptera	<i>Adelphocoris ticinensis</i>	1	1	Nb
Heteroptera	<i>Lygus pratensis</i>	1	1	(RDB3)
Lepidoptera (butterflies)	Dingy Skipper	1	0	S.41
Lepidoptera (butterflies)	Small Heath	1	1	VU & S.41
Lepidoptera (moths)	<i>Choristoneura diversana</i>	1	0	Na
Total with status		14	20	26
Total species		363	528	
Proportion with status		3.9%	3.8%	

Araneae (spiders)

A total of 101 species of spider were recorded, eight of which were found to have conservation status. Although the statuses were updated in 2017, just before the last survey, many are all-ready out of date due to a renaissance of spider recording nationally, in the last five years.

***Agyneta mollis* - (Nationally Rare, Near Threatened & Section 41) - Author's records = 185**

Possibly the most over-designated spider in the UK and easily overlooked. It is not rare, it is just very small and has an early adult period. It is now the species of spider with conservation status that the author most frequently records. It was not recorded in 2018. It was recorded in six of the ten compartments.

***Argenna subnigra* - Nationally Scarce - Author's records = 59**

Beaten from a hedgerow, this is an unusual record. This spider is typically found in warm, dry and short swards, such as quarries and chalk-grassland. The SRS page for this species does mention that it is occasionally beaten from trees and shrubs. It may therefore have been an aeronaut, so the likelihood that is breeding on the site is slim. It was not recorded in 2018. Recorded in Great Meadow only.



Fig. 5. A female *Argenna subnigra* showing the distinctive abdominal pattern.

***Enoplognatha mordax* - Nationally Scarce - Author's records = 70**

In 2018, the author noticed that this strictly saltmarsh inhabiting spider was turning up inland at Doleham in the Brede Valley. It was also noted the other side of Hastings by another observer that year. It has since started spreading out inland from this point and is now quite common in many different habitats. The author was convinced that this was a new species colonising from the continent and collected material to be DNA tested. It was found to be most likely to be just *Enoplognatha mordax*. It is extremely unusual that a species could switch so dramatically from being a strict habitat specialist to a generalist (but then only in one corner of the country). It was only recorded in Great Brook.



Fig. 6. *Enoplognatha mordax* female.

***Marpissa muscosa* - Nationally Scarce - Author's records = 105**

The UK's largest jumping spider. It is most often encountered under bark on large, open-grown trees but most records come from gate and fence posts, as was the case here. It was recorded in the north end of the Meadow only. It was noted in 2018.

***Pardosa tenuipes* (was *proxima*) - Nationally Scarce - Author's records = 50**

Not recorded in 2018, this non-descript wolf spider is hard to spot in the field, only becoming evident when sorting through the specimens. It has no particular habitat association beyond needing open habitats. It is not especially scarce and was recorded in five of the ten fields.

***Sibianor aurocinctus* - Nationally Scarce - Author's records = 159**

Recorded in the northern flood plain fields in 2018, it was again recorded in 2023 as a single immature in Upper Brook. A thermophilic species that is spreading rapidly in the region, most likely benefiting from climate change. The habitat here is quite atypical for it but it has clearly survived here. It is still scarce regionally but spreading and will likely lose its status over the next decade.

***Styloctetor compar* - (Nationally Scarce) - Author's records = 84**

Previously known as *Ceratinopsis stativa*. A common species of open habitats, that can be found in nearly any type of grassland. It was not recorded in the 2018 survey but in 2023 it was noted in four fields. It does not warrant the status it has.

***Trematocephalus cristatus* - Nationally Scarce - Author's records = 134**

A distinctive, small black and red money spider with a hole through the cephalothorax in the male. Found on trees and bushes in the early summer where it is common in the region. It was recorded in Alder Field and Boggy Brook only and was not noted in 2018.

Coleoptera (beetles)

A total of 161 species were recorded, with nine of these having some form of conservation status. Weevil statuses are long overdue an update.

***Acupalpus exiguus* - Nationally Scarce - Author's records = 68**

A tiny near-black carabid that is almost always found in humid grassland, such as flood plain grassland. It was recorded in 2018 also. In 2023, it was recorded in eight of the ten compartments, making it the most widespread species with conservation status of the survey. It was only Great Brook and Riverside West where it was not recorded, and this is likely in the latter case due to the lack of grazing and the length of the sward.

***Amara strenua* - Nationally Rare & Near Threatened - Author's records = 9**

A scarce carabid in Sussex, associated with river margins and floodplain grassland. This is the first time the author has recorded it in East Sussex, it was not recorded in 2018. Found in Riverside West, Long Meadow, Upper Brook, Lime Field & Great Brook in June. Seems to be spreading, with five of the author's nine records made on this survey. Unlikely to have been overlooked in 2018.

***Aulacobaris lepidii* - Nationally scarce a - Author's records = 7**

This distinctive blue weevil feeds on crucifers and seems to be spreading in the region. The literature states that it is found in wet areas but the author has recorded it in far drier places than Pigstrood, such as arable margins. Here it was recorded once in Further Five Acres, one of the driest fields on site.

***Cantharis fusca* - Nationally Scarce - Author's records = 115**

A large and impressive soldier beetle that has spread rapidly through Sussex in the last decade. In fact, it was not recorded at all in the 2018 survey but in 2023 it was recorded in five of the ten compartments. Unlikely to have been missed in 2018, due to its large size.

***Diachromus germanus* - Nationally Rare & Vulnerable - Author's records = 5**

This rare carabid is known from the Pevensey Levels area but has spread in recent years. The author has now recorded it on the Knepp wetland restoration, Doleham, Shaw Farm and now Pigstrood. Here it was swept from the western end of Alder Brook. Unlike most carabids, this species feeds on seeds, climbing plant stems to do so. As such, it is mainly found by sweeping long grass. Unlikely to have been overlooked due its distinctiveness.



Fig. 7. *Diachromus germanus*.

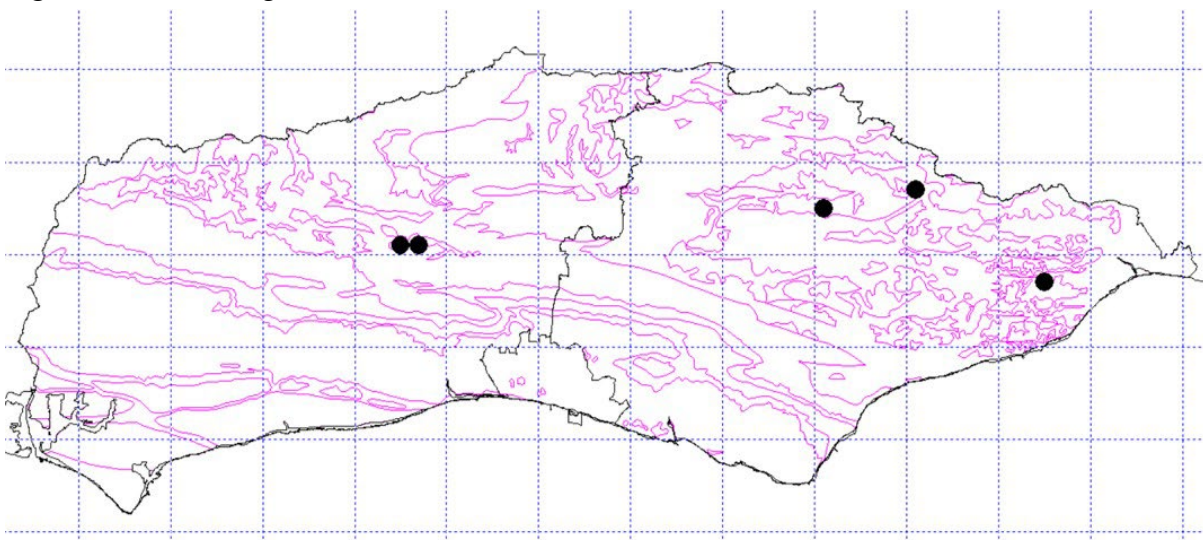


Fig.8. Author's records of *Diachromus germanus*.

***Glocianus punctiger* - (Nationally scarce b) - Author's records = 25**

A common weevil that feeds on Dandelions and no longer warrants the status it has. Recorded once in Upper Brook, it was not noted in 2018.

***Hypera meles* - (Nationally scarce a) - Author's records = 34**

This now common species no longer warrants the status it has, a weevil that feeds on clovers. Found only in Lime Field in 2023, it was not noted in 2018.

***Protapion difforme* - Nationally scarce b - Author's records = 99**

A distinctive weevil for an apionid, with some unusual and distinctive characters in the male. It is scarce nationally but common in the south east, it feeds on clovers in grassland swards. It was also recorded in 2018. In 2023, it was recorded in five of the ten fields.

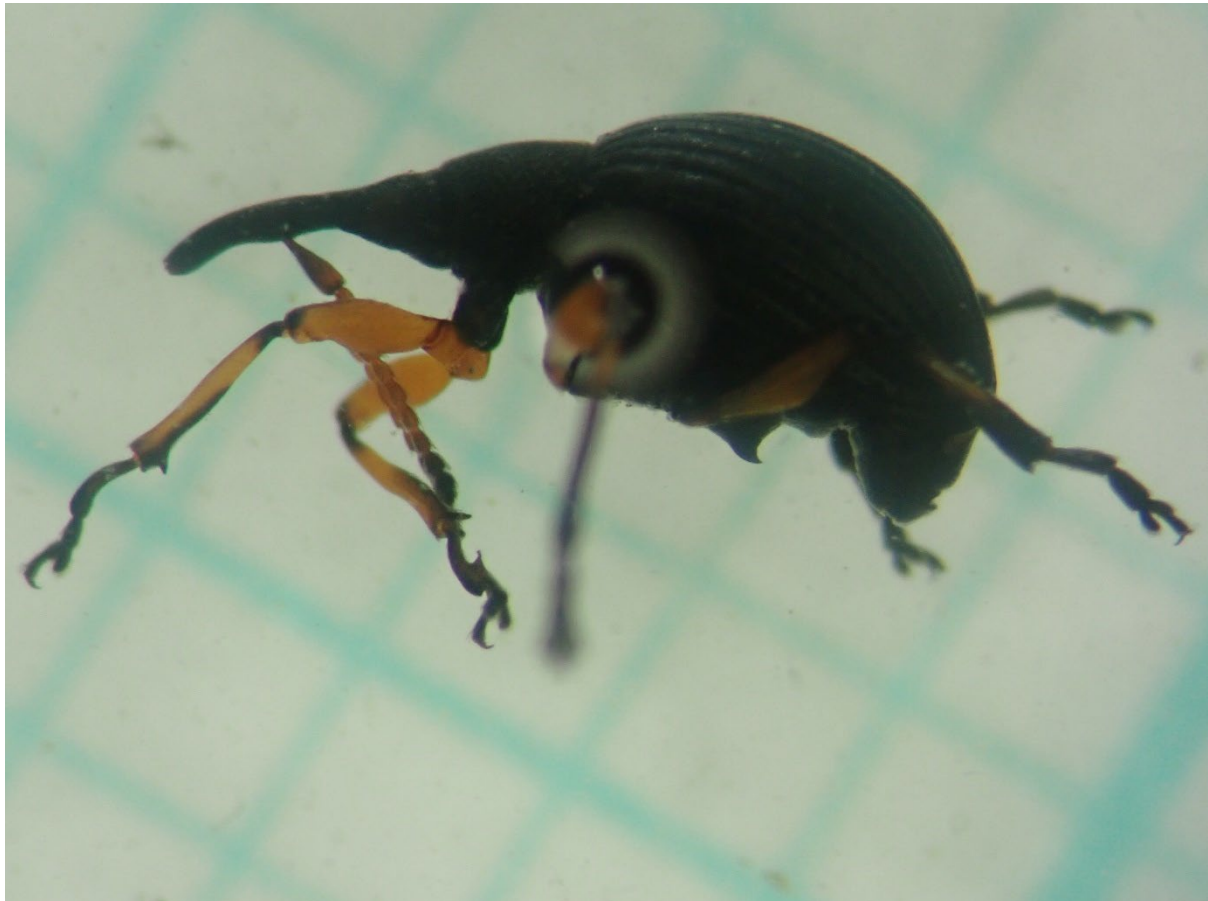


Fig. 9. A male *Protapion difforme* showing the unusual “shark-fin” on the underside.

***Protapion varipes* - Nationally scarce b - Author's records = 16**

An uncommon species that seems to be commoner in East Sussex than West where it is most frequent in the High Weald. Feeds on clovers, especially Red Clover. Recorded in Alder Field, Boggy Brook and Further Five Acres. It was also recorded in 2018 but was not listed as a species with conservation status (in error).

Diptera (true flies)

A total of 47 species were recorded, with only one species noted as having conservation status.

***Acinia corniculata* (Scarce Knapweed Fly) - Endangered - Author's records = 1**

This is the first time the author has encountered this species. Several individuals were found to the north of Further Five Acres. The fly feeds on Knapweed and seems to be genuinely scarce.

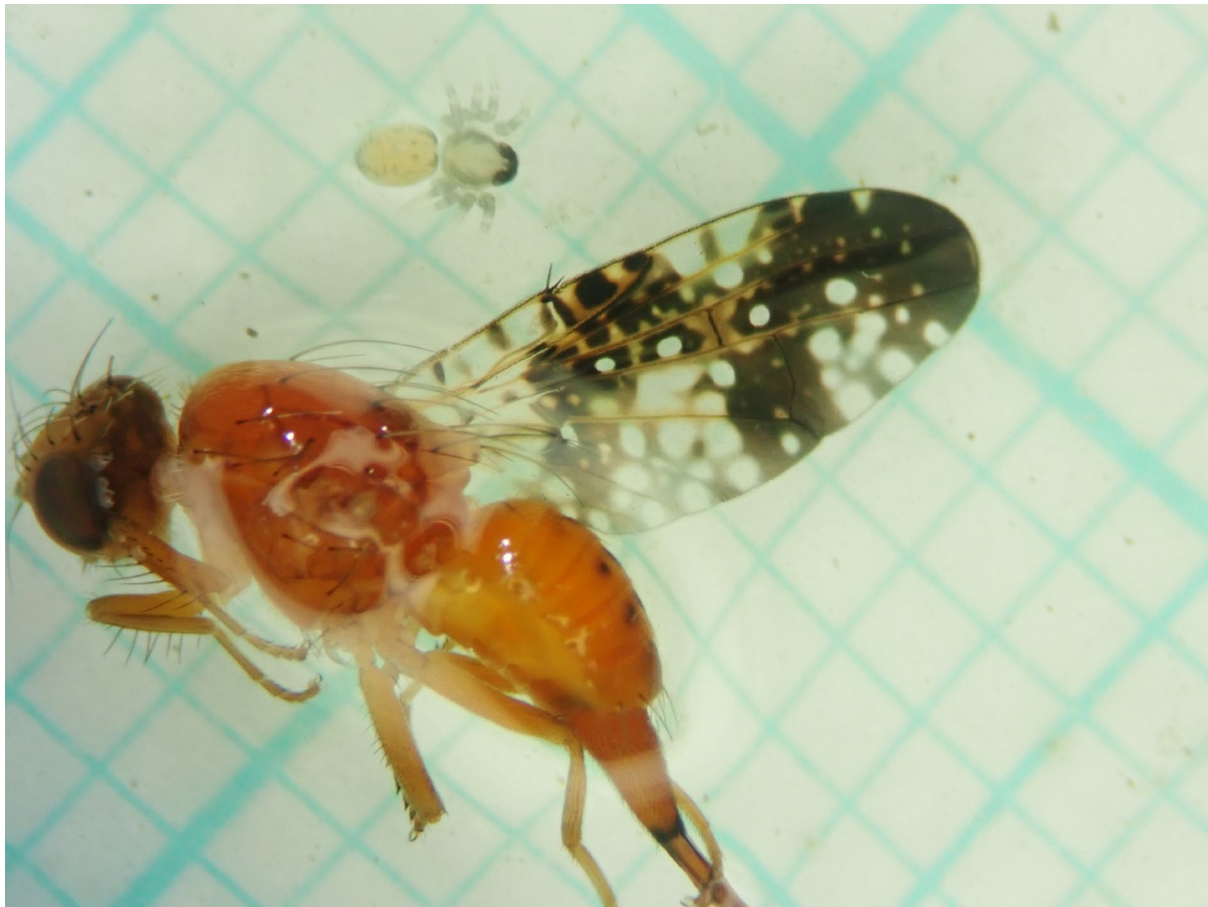


Fig. 10. *Acinia corniculata*.

Hemiptera (true bugs)

A total of 85 species were recorded, two of which had conservation status (these being the same two species with status recorded in 2018).

***Adelphocoris ticinensis* - Nationally scarce b - Author's records = 52**

A local plant bug associated with fens and nice wetlands. It was recorded at Pigstrood in 2018 and in 2023 it was found in four of the ten compartments, being - Alder Brook, Further Five Acres, Long Meadow and Upper Brook. With the exception of Further Five Acres, these are the wetter fields closer to the river.

***Lygus pratensis* - (RDB3) - Author's records = 320**

This species no longer warrants the status it has, being one of the commonest bugs in late summer and possibly the second most frequently recorded species with conservation status that the author records. It was noted in 2018 and in 2023 it was recorded in seven out of ten compartments.

Hymenoptera (bees, ants & wasps, etc)

Only 24 species were recorded in 2023, down one species on the 2025 total. One species was found to have conservation status but this is now common and will lose its status in the upcoming review.

***Lasioglossum malachurum* - (Nationally scarce b) - Author's records = 73**

This small mining bee nests in clay more often than other species and as such can be common in the Weald. It was not recorded in 2018 and in 2023 it was found in three fields.

Lepidoptera (butterflies)

A total of 21 species of butterfly were recorded, with only one species noted with conservation status. Dingy Skipper was not recorded in 2023 (but was in 2018).

Small Heath - Vulnerable & Section 41 - Author's records = 372

This butterfly was elevated to Vulnerable status in summer 2022. It is still a common species in the wider landscape but has clearly declined nationally. It is the invertebrate with conservation status that the author records the most. It was recorded in 2018 and in 2023 it was recorded in Further Five Acres, Great Meadow and Upper Brook.

3.3 - Additional species of note

A small patch of Adder's-tongue Fern was recorded on the 4th May in the north east corner of Lime Field, in an area that was fenced off from grazing.



Fig. 11. Adder's-tongue Fern in Lime Field.



Fig. 12. *Recurvaria leucatella*.

This distinctive gelechiid was beaten from the large oak to the north of Further Five Acres, this being the first record made by the author. A local species that feeds on hawthorns and apples.

4 - Analyses and conclusions

4.1 - Internal comparison between the ten compartments

Tab. 3. Highest scoring compartment for any metric is highlighted in green and the lowest in red, to allow for at-a-glance trends (if any are present) to emerge from the data.

	AB	AF	BB	FFA	GB	GM	LF	ME	RSW	UB	Total
Sheep grazed?	Y	N	Y	N	Y	N	N	N	N	N	
Species	145	169	177	185	135	161	145	168	160	167	
Species with status	9	5	6	10	6	5	5	7	2	10	20
Proportion of species with status	6.2	3.0	3.4	5.4	4.4	3.1	3.4	4.2	1.3	6.0	3.8
Araneae	26	40	34	32	25	31	32	41	26	43	101
Coleoptera	56	41	56	65	42	44	51	55	52	50	161
Hemiptera	24	34	27	30	21	22	17	27	29	25	85
Diptera	9	16	14	10	11	16	11	8	18	12	47
Moths	4	6	11	15	5	15	7	9	5	6	38
Butterflies	9	8	9	10	12	9	6	7	7	10	21
Odonata	1	3	2	2	0	2	3	2	1	1	8
Orthoptera	4	5	5	4	5	5	4	6	5	5	9
Unique	17	25	21	42	12	16	16	22	22	23	216
Ubiquitous	15	15	15	15	15	15	15	15	15	15	15

Clearly, the unmanaged compartment along the river (River Side West) scored very low for the total number of species with conservation status and the associated proportion with only two species noted (the next lowest was five - shared by three fields, showing that this really was an outlier). Being the only unmanaged compartment monitored, this is a significant result to support how important regular management is, as most species with status are not associated with rank grasslands. Great Brook had the lowest species count of the ten compartments, again likely down to the rank nature of the grassland here. Upper Brook and Further Five Acres had the most species with status and this reflects the author's observations with these two fields being two of the best for a range of metrics of the survey. It is surprising that the Meadow to the south west did not come out better than it did, given its unique hydrology and botany, yet the scarcer species were not present in significant numbers here.

Two of the three lowest species totals were fields grazed by sheep in July, Great Brook and Alder Brook.

4.2 - Comparative analysis with 2018 survey data and compartments

Tab. 4. Comparative analysis between the five compartments (as they were in 2018 report)

Compartment	2018	2023	Total
Meadow	61	168	205
Northern Fields (remaining five fields)	207	375	455

Alder Field	93	169	220
Southern Fields (Further five Acres & Lime Field)	91	249	291
Riverside	112	160	232

4.3 - Accumulative analysis of 2018 & 2023 survey data

Tab. 5. Accumulative analysis over the two years.

Order	2018	2023	Total
Coleoptera	102	161	199
Hemiptera	72	85	106
Araneae	40	102	105
Diptera	38	47	61
Lepidoptera - moths	30	38	56
Hymenoptera	25	24	37
Lepidoptera - butterflies	18	21	24
Odonata	10	8	12
Orthoptera	9	9	9
Mollusca	6	9	10
Neuroptera	3	3	4
Opiliones	3	3	4
Crustacea	2	3	3
Trichoptera	2	7	8
Centipede	0	1	1
Dermaptera	1	1	1
Springtails	1	2	2
Ephemeroptera	1	0	1
Mecoptera	0	1	2
Mites	0	2	2
Megaloptera	1	0	1
Plecoptera	0	1	1
Total	363	528	649
Species with status	14	20	26
Proportion of species with status	3.9%	3.8%	4.0%

Typically, with accumulative analyses, the proportion of species with status rises. Although it has here very slightly, this is not thought to be highly significant. It shows that the survey is doing well for the number of species recorded and that it is a standardised way of assessing the quality of a site over years, allowing for some change in observer bias and climate, etc.

4.4 - Pantheon analysis

Pantheon is the Biological Record Centre's online database for analysing large lists of invertebrates. The data was run through the database and the following invertebrate habitats were highlighted.

Tab. 6. Pantheon analysis in the two years of survey. The first number shows the number of qualifying species recorded in that year for that attribute and the second number is the arbitrary number required for that attribute to be perceived as in 'favourable condition'.

Assemblage	2018	2023
Bark & sapwood decay	13/19	18/19
Rich flower resource	19/15	16/15
Scrub edge	6/11	13/11
Bare sand & chalk	5/19	6/19
Open short sward	2/13	4/13
Scrub-heath & moorland	4/9	4/9
Epiphyte fauna	2/3	3/3
Undisturbed fluctuating marsh	1/4	1/4
Reed-fen and pools	1/11	
Saltmarsh & transitional brackish marsh		1/9
Slow-flowing rivers	1/4	1/4
Heartwood decay	1/6	1/6
Total number of assemblages present	11 (1 in favourable condition)	11 (2 in favourable condition)
SQL	111	119

The same number of assemblages was present in each year, with two favourable in 2023 and only one in 2018. The additional assemblage in 2023 in favourable condition was ‘scrub edge’, this shows that the hedges are likely thickening up and becoming more interesting. It was also a very good year for Hawthorn blossom. Despite much larger numbers of species in 2023, the number of bees fell. ‘Rich flower source’ is really just a list of bees, and the assemblage was three less than in 2018. Bark and sapwood decay was again higher in 2023 and this could again be due to the increase in Hawthorn blossom in 2023. None of the other assemblages varied much between the years.

The SQL is a measure of the quality of the entire assemblage, it is closely tied to the ‘proportion of species with conservation status’ but is weighted by rarity. The author’s rolling average is 124.1, so even though the site has improved over the last five years for its quality, this is still less than average.

4.5 - Conclusion

The site has clearly improved over the past five years, with a reduction in the intensity of grazing over the summer likely having the greatest positive impact on invertebrate diversity since the 2018 survey season. Hedgerows have also clearly thickened up in places with an improvement in scrub edge species. The increase in numbers of beetles in part shows an improvement in phytophagous species. The author has also improved since 2018, especially in arachnology. Many species are also spreading in range, in part down to climate change, with invertebrate species-richness naturally increasing over the time period. A slight decline in bees is more likely down to poor seasons in recent years than it was a decline in flowers on site, which were clearly more prolific in 2023 than they were in 2018.

5 - Management recommendations



Fig. 13. A wealth of Common Bird's-foot-trefoil flowering in July in Upper Brook. This area was especially legume-rich. These plants are the first to be grazed out due to their high nitrogen content.

The unusually wet and mild summer meant that many plants kept flowering late into the year. The land looked very different compared to how it looked in summer 2018 and some of the increases in diversity will be down to this. However, it is more likely that the lack of hard grazing in most compartments earlier in the summer, was of greater impact. However, the lack of extensive hard grazing and the incredible growth year are intrinsically linked and impossible to disentangle.

This is not in anyway to suggest that grazing is bad for invertebrates, more that grazing was applied for much of the summer in 2018 and over a larger area and this was more of a limiting factor for the assemblage in 2018. The converse to this is that by not grazing for so long, the site is drifting towards being in a state of 'brinkmanship'. It might be really good now but that will soon start to decline without appropriate grazing, the sward will coarsen up over time but in the short term the invertebrates have improved. The answer is to never hard graze everywhere at the same time, to move animals fairly frequently and to move back to cattle grazing as soon as possible for the summer graze. Winter sheep grazing is always an option too if the site is dry enough.



Fig.14. The northern edge of Further Five Acres in July showing the veteran oak.

Knapweed continues to dominate in Further Five Acres and may benefit from an earlier hay cut to break its dominance. If a May cut was carried out, then only cut something in the region of a third and still apply the typical management later in the year (be that light summer cattle grazing, a more comprehensive late hay cut and/or winter sheep grazing).

5.1 - Grazing

No cattle were on site during the survey season of 2023 and no sheep were on until July. This actually benefited the invertebrate assemblage in 2023. Only fields Boggy Brook, Alder Brook and Great Brook were grazed in July with sheep. Alder Brook and Great Brook had the two lowest species totals of all ten fields.

As the grass had grown very long before animals were put out, much of the grass had been trampled by the sheep rather than eaten down. This thatch is very difficult to graze out once trampled and adds nutrients into the soil, reduces germination space, bare ground and warmth reaching the soil. This type of graze should be avoided at all costs as it will only promote coarse grasses and reduce invertebrate biodiversity and abundance.



Fig. 15. Flattening of vegetation by sheep.

5.2 - Mowing

If mowing is going to take place instead of grazing in the short term, then care must be taken to leave some significant areas uncut in each field and leave at least one field entirely uncut each year.

With sheep, it might make sense to cut the areas for hay before deploying the livestock and put the animals on the aftermath. This could help to limit the trampling of the sward before the animal have had chance to graze it.

5.3 - Water bodies

The water bodies that were in place prior to monitoring started in 2018, especially the pond in the centre of Alder Field, have declined greatly over the last five years with much less open ground, mud and water present, even in early May after a very wet spring. In order to keep these areas interesting for biodiversity, new areas could be added adjacent to (or slightly overlapping) these features on say, a ten-year cycle.

The vegetation around here had developed however, with more tall herb and a variety of flowering plants than elsewhere (see figure 16 below). Tufted Forget-me-not was recorded here.



Fig. 16. Water body in the centre of Alder Field.

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Appendix 1 - Species with conservation status are highlighted in bold

Order	Species	Vernacular	AB	AF	BB	FFA	GB	GM	LF	ME	RSW	UB	Status
Araneae	<i>Agalenatea redii</i>	Agalenatea redii		1		1	1	1	1	1	1		
Araneae	<i>Agelena labyrinthica</i>	Labyrinth Spider				1	1	1	1	1		1	
Araneae	<i>Agyneta mollis</i>	Thin Weblet	1			1	1		1	1		1	NR, NT & S.41
Araneae	<i>Alopecosa pulverulenta</i>	Alopecosa pulverulenta					1			1		1	
Araneae	<i>Anelosimus vittatus</i>	Anelosimus vittatus	1	1	1	1		1	1	1		1	
Araneae	<i>Araneus diadematus</i>	Garden Spider	1	1				1					
Araneae	<i>Araneus quadratus</i>	Araneus quadratus		1	1		1			1			
Araneae	<i>Araniella cucurbitina</i>	Araniella cucurbitina		1	1				1				
Araneae	<i>Araniella opisthographa</i>	Araniella opisthographa	1			1		1			1		
Araneae	<i>Argenna subnigra</i>	Argenna subnigra						1					NS
Araneae	<i>Asagena phalerata</i>	Asagena phalerata				1							
Araneae	<i>Baryphyma pratense</i>	Baryphyma pratense	1					1				1	
Araneae	<i>Bathypantes gracilis</i>	Bathypantes gracilis	1		1		1	1		1	1	1	
Araneae	<i>Brigittea latens</i>	Brigittea latens	1	1	1	1		1	1	1	1	1	
Araneae	<i>Centromerita bicolor</i>	Centromerita bicolor	1										
Araneae	<i>Cheiracanthium erraticum</i>	Cheiracanthium erraticum					1		1		1		
Araneae	<i>Clubiona brevipes</i>	Clubiona brevipes				1							
Araneae	<i>Clubiona comta</i>	Clubiona comta		1				1		1			
Araneae	<i>Clubiona neglecta</i>	Clubiona neglecta										1	
Araneae	<i>Clubiona reclusa</i>	Clubiona reclusa									1		
Araneae	<i>Cnephalocotes obscurus</i>	Cnephalocotes obscurus			1		1	1				1	
Araneae	<i>Diaea dorsata</i>	Diaea dorsata				1							
Araneae	<i>Dictyna arundinacea</i>	Dictyna arundinacea	1					1	1	1	1	1	
Araneae	<i>Dictyna uncinata</i>	Dictyna uncinata		1				1		1		1	
Araneae	<i>Dicymbium</i>	Dicymbium	1	1	1	1			1			1	
Araneae	<i>Dicymbium brevisetosum</i>	Dicymbium brevisetosum			1								
Araneae	<i>Dismodicus bifrons</i>	Dismodicus bifrons		1								1	
Araneae	<i>Enoplognatha mordax</i>	Enoplognatha mordax					1						NS
Araneae	<i>Entelecara acuminata</i>	Entelecara acuminata							1				
Araneae	<i>Erigone atra</i>	Erigone atra	1	1									
Araneae	<i>Erigone dentipalpis</i>	Erigone dentipalpis			1	1		1				1	
Araneae	<i>Erigonella hiemalis</i>	Erigonella hiemalis				1							

Order	Species	Vernacular	AB	AF	BB	FFA	GB	GM	LF	ME	RSW	UB	Status
Araneae	<i>Ero cambridgei</i>	Ero cambridgei										1	
Araneae	<i>Euophrys frontalis</i>	Euophrys frontalis			1								
Araneae	<i>Gibbaranea gibbosa</i>	Gibbaranea gibbosa								1			
Araneae	<i>Gonatium rubens</i>	Gonatium rubens		1						1			
Araneae	<i>Gongylidium rufipes</i>	Gongylidium rufipes				1				1			
Araneae	<i>Hahnia nava</i>	Hahnia nava						1					
Araneae	<i>Heliophanus flavipes</i>	Heliophanus flavipes						1					
Araneae	<i>Hylyphantes graminicola</i>	Hylyphantes graminicola	1		1	1	1		1	1			
Araneae	<i>Hypomma bituberculatum</i>	Hypomma bituberculatum		1								1	
Araneae	<i>Hypsosinga pygmaea</i>	Hypsosinga pygmaea		1									
Araneae	<i>Larinioides cornutus</i>	Larinioides cornutus	1	1			1	1	1	1		1	
Araneae	<i>Lathys humilis</i>	Lathys humilis				1							
Araneae	<i>Mangora acalypha</i>	Mangora acalypha	1	1	1	1	1	1	1	1	1	1	
Araneae	<i>Marpissa muscosa</i>	Marpissa muscosa								1			NS
Araneae	<i>Maso sundevalli</i>	Maso sundevalli			1								
Araneae	<i>Metellina mengei</i>	Metellina mengei	1		1	1				1		1	
Araneae	<i>Micrargus herbigradus</i>	Micrargus herbigradus							1				
Araneae	<i>Microlinyphia pusilla</i>	Microlinyphia pusilla		1	1			1	1	1		1	
Araneae	<i>Misumena vatia</i>	Misumena vatia							1			1	
Araneae	<i>Neoscona adianta</i>	Neoscona adianta	1	1	1	1	1	1	1	1	1	1	
Araneae	<i>Neottiura bimaculata</i>	Neottiura bimaculata	1	1				1	1	1			
Araneae	<i>Neriere clathrata</i>	Neriere clathrata		1									
Araneae	<i>Nuctenea umbratica</i>	Toad Spider			1							1	
Araneae	<i>Obscuriphantes obscurus</i>	Obscuriphantes obscurus							1				
Araneae	<i>Oedothorax apicatus</i>	Oedothorax apicatus							1				
Araneae	<i>Oedothorax fuscus</i>	Oedothorax fuscus			1	1							
Araneae	<i>Oedothorax retusus</i>	Oedothorax retusus	1	1			1			1	1	1	
Araneae	<i>Ozyptila brevipes</i>	Ozyptila brevipes		1	1				1				
Araneae	<i>Ozyptila sanctuaria</i>	Ozyptila sanctuaria			1								
Araneae	<i>Ozyptila simplex</i>	Ozyptila simplex	1			1	1			1			
Araneae	<i>Ozyptila trux</i>	Ozyptila trux									1		
Araneae	<i>Pachygnatha clercki</i>	Pachygnatha clercki	1		1		1			1	1	1	

Order	Species	Vernacular	AB	AF	BB	FFA	GB	GM	LF	ME	RSW	UB	Status
Araneae	<i>Pachygnatha degeeri</i>	Pachygnatha degeeri	1	1	1	1	1	1	1	1	1	1	
Araneae	<i>Paidiscura pallens</i>	Paidiscura pallens			1			1		1		1	
Araneae	<i>Pardosa amentata</i>	Pardosa amentata									1		
Araneae	<i>Pardosa nigriceps</i>	Pardosa nigriceps		1					1	1	1	1	
Araneae	<i>Pardosa palustris</i>	Pardosa palustris			1		1			1			
Araneae	<i>Pardosa prativaga</i>	Pardosa prativaga		1							1		
Araneae	<i>Pardosa pullata</i>	Pardosa pullata	1	1	1	1	1	1	1	1	1	1	
Araneae	<i>Pardosa tenuipes</i>	Pardosa tenuipes	1			1	1			1		1	NS
Araneae	<i>Philodromus albidus</i>	Philodromus albidus				1		1	1				
Araneae	<i>Philodromus cespitum</i>	Philodromus cespitum		1									
Araneae	<i>Philodromus praedatus</i>	Philodromus praedatus			1	1							
Araneae	<i>Phylloneta sisypbia</i>	Phylloneta sisypbia		1									
Araneae	<i>Piratula latitans</i>	Piratula latitans	1	1		1	1			1		1	
Araneae	<i>Pisaura mirabilis</i>	Nursery Web Spider	1	1	1	1		1	1	1	1	1	
Araneae	<i>Platnickina tincta</i>	Platnickina tincta										1	
Araneae	<i>Pocadicnemis juncea</i>	Pocadicnemis juncea		1						1	1	1	
Araneae	<i>Robertus arundineti</i>	Robertus arundineti			1			1				1	
Araneae	<i>Savignia frontata</i>	Savignia frontata										1	
Araneae	<i>Sibianor aurocinctus</i>	Sibianor aurocinctus										1	NS
Araneae	<i>Styloctetor compar</i>	Styloctetor compar		1	1				1		1		NS
Araneae	<i>Tallusia experta</i>	Tallusia experta										1	
Araneae	<i>Tenuiphantes flavipes</i>	Tenuiphantes flavipes	1										
Araneae	<i>Tenuiphantes tenuis</i>	Tenuiphantes tenuis		1			1	1	1	1	1		
Araneae	<i>Tetragnatha extensa</i>	Tetragnatha extensa		1						1	1	1	
Araneae	<i>Tetragnatha montana</i>	Tetragnatha montana		1									
Araneae	<i>Theridion mystaceum</i>	Theridion mystaceum										1	
Araneae	<i>Theridion varians</i>	Theridion varians			1	1		1	1			1	
Araneae	<i>Tibellus oblongus</i>	Tibellus oblongus			1				1	1	1		
Araneae	<i>Trematocephalus cristatus</i>	Trematocephalus cristatus		1	1								
Araneae	<i>Trichopternoides thorelli</i>	Trichopternoides thorelli				1	1	1		1	1	1	
Araneae	<i>Trochosa terricola</i>	Trochosa terricola								1			
Araneae	<i>Walckenaeria antica</i>	Walckenaeria antica		1		1		1				1	

Order	Species	Vernacular	AB	AF	BB	FFA	GB	GM	LF	ME	RSW	UB	Status
Araneae	<i>Walckenaeria atrotibialis</i>	Walckenaeria atrotibialis			1								
Araneae	<i>Xysticus cristatus</i>	Xysticus cristatus		1		1	1		1	1	1		
Araneae	<i>Xysticus kochi</i>	Xysticus kochi					1		1				
Araneae	<i>Xysticus lanio</i>	Xysticus lanio				1							
Araneae	<i>Zilla diodia</i>	Zilla diodia		1							1		
Araneae	<i>Zora spinimana</i>	Zora spinimana		1	1					1			
Butterfly	<i>Aglais io</i>	Peacock			1		1			1		1	
Butterfly	<i>Aglais urticae</i>	Small Tortoiseshell		1			1						
Butterfly	<i>Anthocharis cardamines</i>	Orange-tip	1		1	1	1	1	1	1	1	1	
Butterfly	<i>Coenonympha pamphilus</i>	Small Heath				1		1				1	VU, S.41
Butterfly	<i>Favonius quercus</i>	Purple Hairstreak										1	
Butterfly	<i>Lycaena phlaeas</i>	Small Copper				1							
Butterfly	<i>Maniola jurtina</i>	Meadow Brown	1	1	1	1	1	1	1	1	1	1	
Butterfly	<i>Melanargia galathea</i>	Marbled White						1					
Butterfly	<i>Ochlodes sylvanus</i>	Large Skipper		1								1	
Butterfly	<i>Pararge aegeria</i>	Speckled Wood		1	1								
Butterfly	<i>Pieris brassicae</i>	Large White	1		1	1	1		1			1	
Butterfly	<i>Pieris napi</i>	Green-veined White	1			1	1	1			1	1	
Butterfly	<i>Pieris rapae</i>	Small White	1	1	1	1	1	1	1				
Butterfly	<i>Polygonia c-album</i>	Comma	1							1			
Butterfly	<i>Polyommatus icarus</i>	Common Blue					1	1					
Butterfly	<i>Pyronia tithonus</i>	Gatekeeper	1	1	1	1	1	1	1	1	1	1	
Butterfly	<i>Thymelicus lineola</i>	Essex Skipper		1						1	1		
Butterfly	<i>Thymelicus sylvestris</i>	Small Skipper	1	1	1	1	1	1	1	1	1	1	
Butterfly	<i>Vanessa atalanta</i>	Red Admiral	1		1	1	1				1		
Butterfly	<i>Vanessa cardui</i>	Painted Lady					1						
Centipede	<i>Lithobius variegatus</i>	Lithobius variegatus										1	
Coleoptera	<i>Acupalpus dubius</i>	Acupalpus dubius		1						1		1	
Coleoptera	<i>Acupalpus exiguus</i>	Acupalpus exiguus	1	1	1	1		1	1	1		1	NS
Coleoptera	<i>Adalia decempunctata</i>	10-spot Ladybird		1									
Coleoptera	<i>Agriotes acuminatus</i>	Agriotes acuminatus				1		1					
Coleoptera	<i>Agriotes lineatus</i>	Agriotes lineatus		1		1		1	1	1	1	1	

Order	Species	Vernacular	AB	AF	BB	FFA	GB	GM	LF	ME	RSW	UB	Status
Coleoptera	<i>Agriotes obscurus</i>	Agriotes obscurus				1					1		
Coleoptera	<i>Agriotes pallidulus</i>	Agriotes pallidulus	1			1							
Coleoptera	<i>Agriotes sputator</i>	Agriotes sputator			1					1	1		
Coleoptera	<i>Amara convexior</i>	Amara convexior			1								
Coleoptera	<i>Amara plebeja</i>	Amara plebeja	1			1							
Coleoptera	<i>Amara strenua</i>	Amara strenua					1		1	1	1	1	
Coleoptera	<i>Anaspis fasciata</i>	Anaspis fasciata						1			1		
Coleoptera	<i>Anaspis frontalis</i>	Anaspis frontalis	1		1	1		1	1	1	1		
Coleoptera	<i>Anaspis garneysi</i>	Anaspis garneysi		1		1			1				
Coleoptera	<i>Anaspis maculata</i>	Anaspis maculata	1			1	1	1	1	1	1	1	
Coleoptera	<i>Anaspis regimbarti</i>	Anaspis regimbarti			1								
Coleoptera	<i>Anobium punctatum</i>	Common Furniture Beetle	1										
Coleoptera	<i>Anthonomus pedicularius</i>	Anthonomus pedicularius							1				
Coleoptera	<i>Anthonomus rubi</i>	Strawberry-blossom Weevil			1					1		1	
Coleoptera	<i>Apion cruentatum</i>	Apion cruentatum			1								
Coleoptera	<i>Astenus lyonessius</i>	Astenus lyonessius								1			
Coleoptera	<i>Athous bicolor</i>	Athous bicolor	1										
Coleoptera	<i>Athous haemorrhoidalis</i>	Athous haemorrhoidalis				1							
Coleoptera	<i>Aulacobaris lepidii</i>	Aulacobaris lepidii				1							Na
Coleoptera	<i>Bembidion biguttatum</i>	Bembidion biguttatum	1										
Coleoptera	<i>Bembidion guttula</i>	Bembidion guttula	1	1	1		1				1	1	
Coleoptera	<i>Bembidion lampros</i>	Bembidion lampros								1			
Coleoptera	<i>Bembidion lunulatum</i>	Bembidion lunulatum	1				1						
Coleoptera	<i>Bembidion obtusum</i>	Bembidion obtusum								1			
Coleoptera	<i>Brachypera zoilus</i>	Brachypera zoilus						1					
Coleoptera	<i>Bruchidius varius</i>	Bruchidius varius	1		1	1		1	1	1	1	1	
Coleoptera	<i>Bruchus loti</i>	Bruchus loti				1			1			1	
Coleoptera	<i>Bruchus rufimanus</i>	Spanish Bean Beetle				1							
Coleoptera	<i>Bruchus rufipes</i>	Bruchus rufipes		1	1				1	1	1	1	
Coleoptera	<i>Calvia quattuordecimguttata</i>	Cream-spot Ladybird	1					1					
Coleoptera	<i>Cantharis decipiens</i>	Cantharis decipiens	1	1	1	1			1				
Coleoptera	<i>Cantharis flavilabris</i> (=nigra auctt.)	Cantharis flavilabris (=nigra au	1	1		1	1	1	1	1	1	1	

Order	Species	Vernacular	AB	AF	BB	FFA	GB	GM	LF	ME	RSW	UB	Status
Coleoptera	<i>Cantharis fusca</i>	Cantharis fusca	1	1	1	1	1	1	1				NS
Coleoptera	<i>Cantharis nigra</i> (=thoracica)	Cantharis nigra (=thoracica)	1										
Coleoptera	<i>Cantharis rufa</i>	Cantharis rufa	1			1				1	1	1	
Coleoptera	<i>Cantharis rustica</i>	Cantharis rustica		1				1				1	
Coleoptera	<i>Cassida rubiginosa</i>	Thistle Tortoise Beetle			1	1					1	1	
Coleoptera	<i>Cassida vibex</i>	Cassida vibex				1			1	1	1		
Coleoptera	<i>Catapion seniculus</i>	Catapion seniculus				1	1						
Coleoptera	<i>Ceratapion gibbirostre</i>	Ceratapion gibbirostre				1					1		
Coleoptera	<i>Ceratapion onopordi</i>	Ceratapion onopordi		1						1			
Coleoptera	<i>Ceutorhynchus cochleariae</i>	Ceutorhynchus cochleariae	1				1	1		1			
Coleoptera	<i>Chrysolina polita</i>	Knotgrass Leaf Beetle								1			
Coleoptera	<i>Cionus tuberculosus</i>	Cionus tuberculosus									1		
Coleoptera	<i>Clytus arietis</i>	Wasp Beetle		1						1			
Coleoptera	<i>Coccidula rufa</i>	Coccidula rufa		1				1		1	1		
Coleoptera	<i>Coccinella septempunctata</i>	7-spot Ladybird		1	1	1		1	1		1	1	
Coleoptera	<i>Coelositona cambricus</i>	Coelositona cambricus	1		1	1	1	1		1	1		
Coleoptera	<i>Contacyphon coarctatus</i>	Contacyphon coarctatus	1							1			
Coleoptera	<i>Cordylepherus viridis</i>	Cordylepherus viridis								1			
Coleoptera	<i>Corticarina minuta</i>	Corticarina minuta			1		1		1	1		1	
Coleoptera	<i>Cortinicara gibbosa</i>	Cortinicara gibbosa			1	1	1	1		1			
Coleoptera	<i>Crepidodera aurata</i>	Willow Flea Beetle	1	1				1					
Coleoptera	<i>Crepidodera aurea</i>	Crepidodera aurea									1		
Coleoptera	<i>Crepidodera plutus</i>	Crepidodera plutus			1						1	1	
Coleoptera	<i>Cryptocephalus pusillus</i>	Cryptocephalus pusillus				1							
Coleoptera	<i>Curculio venosus</i>	Curculio venosus				1							
Coleoptera	<i>Dalopius marginatus</i>	Dalopius marginatus										1	
Coleoptera	<i>Demetrias atricapillus</i>	Demetrias atricapillus			1						1	1	
Coleoptera	<i>Diachromus germanus</i>	Diachromus germanus	1										NR & VU
Coleoptera	<i>Dorytomus melanophthalmus</i>	Dorytomus melanophthalmus	1										
Coleoptera	<i>Drusilla canaliculata</i>	Drusilla canaliculata						1					
Coleoptera	<i>Epuraea aestiva</i>	Epuraea aestiva								1			
Coleoptera	<i>Eutrichapion ervi</i>	Eutrichapion ervi					1						

Order	Species	Vernacular	AB	AF	BB	FFA	GB	GM	LF	ME	RSW	UB	Status
Coleoptera	<i>Exomias pellucidus</i>	Hairy Spider Weevil									1		
Coleoptera	<i>Gastrophysa polygoni</i>	Gastrophysa polygoni										1	
Coleoptera	<i>Glocianus punctiger</i>	Glocianus punctiger										1 (Nb)	
Coleoptera	<i>Grammoptera ruficornis</i>	Grammoptera ruficornis	1	1	1	1	1	1	1	1	1	1	
Coleoptera	<i>Hadroplontus litura</i>	Hadroplontus litura										1	
Coleoptera	<i>Harmonia axyridis</i>	Harlequin Ladybird	1		1	1		1				1	
Coleoptera	<i>Helophorus brevipalpis</i>	Helophorus brevipalpis					1						
Coleoptera	<i>Hemicoelus fulvicornis</i>	Hemicoelus fulvicornis	1										
Coleoptera	<i>Hydroporus pubescens</i>	Hydroporus pubescens								1			
Coleoptera	<i>Hylastinus obscurus</i>	Gorse Bark Beetle							1				
Coleoptera	<i>Hypera meles</i>	Hypera meles							1				(Na)
Coleoptera	<i>Hypera nigrirostris</i>	Hypera nigrirostris			1	1	1	1					
Coleoptera	<i>Hypera plantaginis</i>	Hypera plantaginis				1			1	1			
Coleoptera	<i>Hypera rumicis</i>	Hypera rumicis		1			1		1				
Coleoptera	<i>Ischnopterapion loti</i>	Ischnopterapion loti						1			1	1	
Coleoptera	<i>Ischnopterapion modestum</i>	Ischnopterapion modestum	1										
Coleoptera	<i>Ischnopterapion virens</i>	Ischnopterapion virens	1	1	1	1	1	1				1	
Coleoptera	<i>Ischnosoma splendidum</i>	Ischnosoma splendidum		1									
Coleoptera	<i>Lagria hirta</i>	Lagria hirta				1							
Coleoptera	<i>Lema cyanella</i>	Lema cyanella									1		
Coleoptera	<i>Limonius poneli</i>	Limonius poneli				1							
Coleoptera	<i>Lochmaea crataegi</i>	Hawthorn Leaf Beetle				1							
Coleoptera	<i>Malachius bipustulatus</i>	Malachite Beetle		1	1	1	1	1	1	1	1		
Coleoptera	<i>Malthinus flaveolus</i>	Malthinus flaveolus			1								
Coleoptera	<i>Megasternum concinnum</i>	Megasternum concinnum					1						
Coleoptera	<i>Meligethes aeneus</i>	Common Pollen Beetle	1		1		1		1		1	1	
Coleoptera	<i>Meligethes atratus</i>	Meligethes atratus	1		1	1				1			
Coleoptera	<i>Melolontha melolontha</i>	Common Cockchafer			1				1				
Coleoptera	<i>Microcara testacea</i>	Microcara testacea								1			
Coleoptera	<i>Mordellochroa abdominalis</i>	Mordellochroa abdominalis							1				
Coleoptera	<i>Nedus quadrimaculatus</i>	Small Nettle Weevil				1							
Coleoptera	<i>Neocrepidodera ferruginea</i>	Wheat Flea Beetle	1				1				1		

Order	Species	Vernacular	AB	AF	BB	FFA	GB	GM	LF	ME	RSW	UB	Status
Hemiptera	<i>Chartoscirta cincta</i>	Chartoscirta cincta		1									
Hemiptera	<i>Cicadella viridis</i>	Cicadella viridis		1							1		
Hemiptera	<i>Closterotomus norwegicus</i>	Potato Capsid	1	1	1	1					1	1	
Hemiptera	<i>Conomelus anceps</i>	Conomelus anceps		1			1				1	1	
Hemiptera	<i>Coreus marginatus</i>	Dock Bug		1	1	1	1	1	1	1	1	1	
Hemiptera	<i>Corizus hyoscyami</i>	Corizus hyoscyami									1		
Hemiptera	<i>Cymus glandicolor</i>	Cymus glandicolor		1						1			
Hemiptera	<i>Cymus melanocephalus</i>	Cymus melanocephalus	1	1				1		1			
Hemiptera	<i>Deraeocoris flavilinea</i>	Deraeocoris flavilinea	1		1								
Hemiptera	<i>Deraeocoris ruber</i>	Deraeocoris ruber										1	
Hemiptera	<i>Dolycoris baccarum</i>	Hairy Shieldbug		1		1	1	1	1				
Hemiptera	<i>Drymus sylvaticus</i>	Drymus sylvaticus			1								
Hemiptera	<i>Dryophilocoris flavoquadrimaculatus</i>	Dryophilocoris flavoquadrimaculatus				1							
Hemiptera	<i>Eurydema oleracea</i>	Cabbage Bug										1	
Hemiptera	<i>Eurygaster testudinaria</i>	Tortoise Bug		1		1	1			1			
Hemiptera	<i>Euscelis incisus</i>	Euscelis incisus				1		1	1		1		
Hemiptera	<i>Gonocerus acuteangulatus</i>	Box Bug			1								
Hemiptera	<i>Harpocera thoracica</i>	Harpocera thoracica				1							
Hemiptera	<i>Heterotoma planicornis</i>	Heterotoma planicornis	1		1							1	
Hemiptera	<i>Himacerus major</i>	Himacerus (Anaptus) major		1						1			
Hemiptera	<i>Iassus lanio</i>	Iassus lanio				1							
Hemiptera	<i>Ischnodemus sabuleti</i>	European Cinchbug	1	1							1		
Hemiptera	<i>Javesella obscurella</i>	Javesella obscurella								1			
Hemiptera	<i>Leptopterna dolabrata</i>	Meadow Plant Bug	1	1	1	1	1	1	1	1	1	1	
Hemiptera	<i>Liocoris tripustulatus</i>	Liocoris tripustulatus										1	
Hemiptera	<i>Lopus decolor</i>	Lopus decolor						1	1	1			
Hemiptera	<i>Lygus pratensis</i>	Lygus pratensis	1	1		1	1			1	1	1	(RDB3)
Hemiptera	<i>Megaloceroea recticornis</i>	Megaloceroea recticornis	1	1	1	1		1					
Hemiptera	<i>Megophthalmus scanicus</i>	Megophthalmus scanicus								1	1		
Hemiptera	<i>Myrmus miriformis</i>	Myrmus miriformis						1					
Hemiptera	<i>Nabis ferus</i>	Field Damsel Bug			1				1				
Hemiptera	<i>Nabis flavomarginatus</i>	Broad Damselbug	1	1				1		1	1	1	

Order	Species	Vernacular	AB	AF	BB	FFA	GB	GM	LF	ME	RSW	UB	Status
Hemiptera	<i>Nabis limbatus</i>	Marsh Damselbug			1					1			
Hemiptera	<i>Nabis rugosus</i>	Common Damselbug			1								
Hemiptera	<i>Neolygus viridis</i>	Neolygus viridis		1									
Hemiptera	<i>Neophilaenus lineatus</i>	Neophilaenus lineatus	1	1			1	1		1	1	1	
Hemiptera	<i>Notostira elongata</i>	Notostira elongata		1			1		1			1	
Hemiptera	<i>Nysius huttoni</i>	Nysius huttoni					1						
Hemiptera	<i>Oncotylus viridiflavus</i>	Oncotylus viridiflavus			1	1			1		1		
Hemiptera	<i>Orthops campestris</i>	Orthops campestris	1								1		
Hemiptera	<i>Orthops kalmii</i>	Orthops kalmii			1								
Hemiptera	<i>Orthotylus marginalis</i>	Dark Green Apple Capsid									1		
Hemiptera	<i>Palomena prasina</i>	Green Shieldbug		1	1		1					1	
Hemiptera	<i>Pentatoma rufipes</i>	Red-legged Shieldbug	1		1	1		1					
Hemiptera	<i>Peritrechus geniculatus</i>	Peritrechus geniculatus			1			1					
Hemiptera	<i>Philaenus spumarius</i>	Cuckoo-Spit Insect	1	1	1	1	1	1	1	1	1	1	
Hemiptera	<i>Phylus coryli</i>	Phylus coryli					1						
Hemiptera	<i>Physatocheila dumetorum</i>	Physatocheila dumetorum		1		1			1				
Hemiptera	<i>Phytocoris longipennis</i>	Phytocoris longipennis		1									
Hemiptera	<i>Phytocoris tiliae</i>	Phytocoris tiliae		1									
Hemiptera	<i>Phytocoris ulmi</i>	Phytocoris ulmi				1							
Hemiptera	<i>Phytocoris varipes</i>	Phytocoris varipes								1			
Hemiptera	<i>Pithanus maerkelii</i>	Pithanus maerkelii					1			1	1		
Hemiptera	<i>Plagiognathus arbustorum</i>	Plagiognathus arbustorum	1	1	1	1	1			1	1	1	
Hemiptera	<i>Plagiognathus chrysanthemi</i>	Plagiognathus chrysanthemi	1				1			1	1	1	
Hemiptera	<i>Podops inuncta</i>	Turtle Bug					1			1			
Hemiptera	<i>Rhabdomiris striatellus</i>	Rhabdomiris striatellus			1	1							
Hemiptera	<i>Rhopalus subrufus</i>	Rhopalus subrufus							1				
Hemiptera	<i>Scolopostethus thomsoni</i>	Scolopostethus thomsoni		1									
Hemiptera	<i>Stenocranus minutus</i>	Stenocranus minutus		1									
Hemiptera	<i>Stenodema calcarata</i>	Stenodema calcarata	1	1	1						1	1	
Hemiptera	<i>Stenodema laevigata</i>	Stenodema laevigata	1	1		1		1	1	1			
Hemiptera	<i>Stenotus binotatus</i>	Timothy Grassbug	1	1		1			1		1		
Hemiptera	<i>Stictopleurus punctatonervosus</i>	Stictopleurus punctatonervosus		1			1	1		1	1	1	

Order	Species	Vernacular	AB	AF	BB	FFA	GB	GM	LF	ME	RSW	UB	Status
Hemiptera	<i>Tachycixius pilosus</i>	Tachycixius pilosus		1				1					
Hemiptera	<i>Teratocoris antennatus</i>	Teratocoris antennatus								1			
Hemiptera	<i>Tingis ampliata</i>	Creeping Thistle Lacebug			1				1		1	1	
Hemiptera	<i>Tytthus pygmaeus</i>	Tytthus pygmaeus									1	1	
Hymenoptera	<i>Andrena dorsata</i>	Short-fringed Mining Bee						1					
Hymenoptera	<i>Andrena haemorrhoa</i>	Orange-tailed Mining Bee						1				1	
Hymenoptera	<i>Andrena labialis</i>	Large Meadow Mining Bee			1				1				
Hymenoptera	<i>Andrena nitida</i>	Grey-patched Mining Bee			1			1	1				
Hymenoptera	<i>Andrena subopaca</i>	Impunctate Mini-miner					1						
Hymenoptera	<i>Andrena wilkella</i>	Wilke's Mining Bee				1							
Hymenoptera	<i>Apis mellifera</i>	Western Honey Bee	1		1	1	1	1	1	1	1	1	
Hymenoptera	<i>Bombus hortorum</i>	Small Garden Bumble Bee				1							
Hymenoptera	<i>Bombus hypnorum</i>	Tree Bumblebee							1				
Hymenoptera	<i>Bombus lapidarius</i>	Red-tailed Bumblebee			1	1	1	1	1			1	
Hymenoptera	<i>Bombus pascuorum</i>	Common Carder Bee		1	1	1			1		1	1	
Hymenoptera	<i>Bombus pratorum</i>	Early Bumblebee				1							
Hymenoptera	<i>Bombus terrestris</i>	Buff-tailed Bumblebee	1	1									
Hymenoptera	<i>Crossocerus nigrinus</i>	Crossocerus nigrinus					1						
Hymenoptera	<i>Lasioglossum malachurum</i>	Sharp-collared Furrow Bee	1		1		1						(Nb)
Hymenoptera	<i>Lasius niger</i>	Small Black Ant								1			
Hymenoptera	<i>Melitta leporina</i>	Clover Blunthorn Bee										1	
Hymenoptera	<i>Myrmica ruginodis</i>	Myrmica ruginodis					1				1		
Hymenoptera	<i>Myrmica scabrinodis</i>	Myrmica scabrinodis		1	1	1		1	1	1	1	1	
Hymenoptera	<i>Nomada flava</i>	Flavous Nomad Bee				1							
Hymenoptera	<i>Panurgus banksianus</i>	Large Shaggy Bee								1			
Hymenoptera	<i>Sphecodes ephippius</i>	Bare-saddled Blood Bee									1		
Hymenoptera	<i>Vespa crabro</i>	Hornet	1								1		
Hymenoptera	<i>Vespa vulgaris</i>	Common Wasp									1		
Mecoptera	<i>Panorpa communis</i>	Panorpa communis		1								1	
Mecoptera	<i>Panorpa germanica</i>	Panorpa germanica				1		1					
Mites	<i>Aceria aceriscampestris</i>	Aceria aceriscampestris						1					
Mites	<i>Aceria macrochela</i>	Aceria macrochela			1								

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Mollusc	<i>Cepaea hortensis</i>	White-lipped Snail					1				1		
Mollusc	<i>Columella edentula</i>	Toothless Chrysalis Snail				1			1				
Mollusc	<i>Cornu aspersum</i>	Common Garden Snail									1		
Mollusc	<i>Deroceras laeve</i>	Marsh Slug		1									
Mollusc	<i>Deroceras reticulatum</i>	Netted Field Slug									1	1	
Mollusc	<i>Monacha cantiana</i>	Kentish Snail		1							1		
Mollusc	<i>Oxyloma elegans</i>	Pfeiffer's Amber Snail	1	1	1						1	1	
Mollusc	<i>Succinea putris</i>	Large Amber Snail	1	1			1				1	1	
Mollusc	<i>Vertigo pygmaea</i>	Common Whorl Snail		1			1						
Moth	<i>Agriphila selasella</i>	Pale-streak Grass-veneer		1									
Moth	<i>Agriphila straminella</i>	Straw Grass-veneer	1	1	1	1	1	1	1	1	1	1	
Moth	<i>Allophyes oxyacanthae</i>	Green-brindled Crescent				1		1					
Moth	<i>Autographa gamma</i>	Silver Y				1	1		1				
Moth	<i>Bactra</i>	Bactra						1					
Moth	<i>Callistege mi</i>	Mother Shipton			1		1	1				1	
Moth	<i>Camptogramma bilineata</i>	Yellow Shell			1	1		1	1				
Moth	<i>Carcina quercana</i>	Long-horned Flat-body						1					
Moth	<i>Cauchas rufimitrella</i>	Meadow Long-horn				1	1		1				
Moth	<i>Celypha lacunana</i>	Common Marble		1						1			
Moth	<i>Chrysoteuchia culmella</i>	Garden Grass-veneer	1		1			1		1		1	
Moth	<i>Cnephasia</i>	Cnephasia		1				1					
Moth	<i>Cochylimorpha straminea</i>	Straw Conch							1				
Moth	<i>Crambus lathoniellus</i>	Hook-streak Grass-veneer				1				1			
Moth	<i>Crambus perlella</i>	Satin Grass-veneer				1							
Moth	<i>Depressaria daucella</i>	Dingy Flat-body	1		1			1		1	1		
Moth	<i>Dichrorampha sequana</i>	Square-spot Drill										1	
Moth	<i>Eilema griseola</i>	Dingy Footman			1			1					
Moth	<i>Eilema lurideola</i>	Common Footman			1								
Moth	<i>Eremobia ochroleuca</i>	Dusky Sallow									1		
Moth	<i>Eucosma hohewartiana</i>	Bright Bell				1							
Moth	<i>Eupsilia transversa</i>	Satellite				1							
Moth	<i>Glyphipterix thrasonella</i>	Speckled Fanner	1					1		1		1	

Order	Species	Vernacular	AB	AF	BB	FFA	GB	GM	LF	ME	RSW	UB	Status
Moth	<i>Grapholita compositella</i>	Triple-stripe Piercer				1		1					
Moth	<i>Hedya nubiferana</i>	Marbled Orchard Tortrix		1									
Moth	<i>Micropterix calthella</i>	Plain Gold									1		
Moth	<i>Nemophora degeerella</i>	Yellow-barred Long-horn				1							
Moth	<i>Nola cucullatella</i>	Short-cloaked Moth							1				
Moth	<i>Operophtera brumata</i>	Winter Moth			1		1	1	1	1		1	
Moth	<i>Orthosia cerasi</i>	Common Quaker			1	1							
Moth	<i>Panemeria tenebrata</i>	Small Yellow Underwing				1							
Moth	<i>Recurvaria leucatella</i>	White-barred Groundling				1							
Moth	<i>Rivula sericealis</i>	Straw Dot		1									
Moth	<i>Stigmella aurella</i>	Golden Pigmy			1								
Moth	<i>Tortrix viridana</i>	Green Oak Tortrix									1		
Moth	<i>Xylena vetusta</i>	Red Sword-grass						1					
Moth	<i>Yponomeuta padella</i>	Orchard Ermine			1								
Moth	<i>Zelotherses paleana</i>	Timothy Tortrix								1			
Moth	<i>Zygaena filipendulae</i>	Six-spot Burnet				1		1		1			
Neuroptera	<i>Chrysoperla carnea</i> group	Chrysoperla carnea group		1	1	1		1		1	1		
Neuroptera	<i>Micromus angulatus</i>	Micromus angulatus								1			
Neuroptera	<i>Micromus variegatus</i>	Micromus variegatus		1									
Odonata	<i>Anax imperator</i>	Emperor Dragonfly				1						1	
Odonata	<i>Brachytron pratense</i>	Hairy Dragonfly							1				
Odonata	<i>Calopteryx virgo</i>	Beautiful Demoiselle	1		1			1		1	1		
Odonata	<i>Cordulegaster boltonii</i>	Golden-ringed Dragonfly		1									
Odonata	<i>Libellula depressa</i>	Broad-bodied Chaser							1				
Odonata	<i>Orthetrum cancellatum</i>	Black-tailed Skimmer		1	1	1			1				
Odonata	<i>Platynemesis pennipes</i>	White-legged Damselfly		1				1					
Odonata	<i>Sympetrum striolatum</i>	Common Darter								1			
Opiliones	<i>Dicranopalpus ramosus</i>	Dicranopalpus ramosus agg.					1	1	1	1			
Opiliones	<i>Paroligolophus agrestis</i>	Paroligolophus agrestis			1			1					
Opiliones	<i>Rilaena triangularis</i>	Rilaena triangularis						1					
Orthoptera	<i>Chorthippus albomarginatus</i>	Lesser Marsh Grasshopper	1	1	1		1	1		1	1	1	
Orthoptera	<i>Conocephalus fuscus</i>	Long-winged Cone-head		1						1	1		

Order	Species	Vernacular	AB	AF	BB	FFA	GB	GM	LF	ME	RSW	UB	Status
Orthoptera	<i>Leptophyes punctatissima</i>	Speckled Bush-cricket			1	1		1				1	
Orthoptera	<i>Meconema thalassinum</i>	Oak Bush-cricket	1										
Orthoptera	<i>Omocestus viridulus</i>	Common Green Grasshopper			1		1	1	1	1		1	
Orthoptera	<i>Pholidoptera griseoaptera</i>	Dark Bush-cricket		1		1			1		1		
Orthoptera	<i>Pseudochorthippus parallelus</i>	Meadow Grasshopper	1	1	1	1	1	1	1	1	1	1	
Orthoptera	<i>Roeseliana roeselii</i>	Roesel's Bush-cricket	1	1	1	1	1	1	1	1	1	1	
Orthoptera	<i>Tetrix subulata</i>	Slender Ground-hopper					1			1			
Springtails	<i>Orchesella cincta</i>	Orchesella cincta	1		1					1			
Springtails	<i>Pogonognathellus longicornis</i>	Pogonognathellus longicornis	1	1	1			1	1	1	1		
Stonefly	<i>Nemoura cinerea</i>	Nemoura cinerea		1	1	1		1	1				
Trichoptera	<i>Glyptotaelius pellucidus</i>	Glyptotaelius pellucidus				1							
Trichoptera	<i>Limnephilus auricula</i>	Limnephilus auricula	1	1	1	1	1	1	1	1		1	
Trichoptera	<i>Limnephilus centralis</i>	Limnephilus centralis	1										
Trichoptera	<i>Limnephilus lunatus</i>	Limnephilus lunatus		1									
Trichoptera	<i>Limnephilus rhombicus</i>	Limnephilus rhombicus				1							
Trichoptera	<i>Limnephilus sparsus</i>	Limnephilus sparsus	1		1	1	1			1			
Trichoptera	<i>Sericostoma personatum</i>	Sericostoma personatum			1								