

A SECOND SURVEY OF INSECTS AT NAPHILL COMMON SSSI

Including an evaluation of the saproxylic species

by Peter J. Hodge

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1.0 INTRODUCTION

This survey was commenced on 22nd June 1996, the main aim being to assess the current value of Naphill Common SSSI for saproxylic invertebrates.

The objective of the survey was stated as: 'To evaluate the saproxylic invertebrate fauna, in particular coleoptera and diptera, at Naphill Common SSSI'. Because many species of bees, wasps, ants and bugs also breed in dead-wood habitats, it was decided to include these groups in the survey. Therefore the insect orders finally chosen for this study were: Coleoptera (beetles), Diptera (flies), Hemiptera (bugs) and aculeate Hymenoptera (bees, wasps & ants).

Insects other than saproxylic species were also recorded as and when they were seen, or when they were found in saproxylic invertebrate samples. The resulting list of insects was tabulated (Hodge, 1996), using the five main recording compartments as headings. The proportion of saproxylic species was then calculated and the result presented in table 2 (paragraph 7.0., Hodge, 1996).

The main reason for seeking this information on invertebrates was to assist in future management decisions, especially those relating to the conservation of the dead-wood habitat, the widening of existing rides and the creation of new clearings. Since there appears to be very little existing invertebrate data for the SSSI, the survey results should also provide a basis for comparison of any future invertebrate survey results will therefore be of considerable scientific value. Not only does the data collected form a permanent record of the species that were present during this survey, but by repeating the survey it should be possible to determine whether the site has changed for any reason perhaps as a result of management work or natural succession. However, it should also be noted that insect populations change for various other reasons, including those linked to trends in the British climate.

Fieldwork was carried out at intervals during 1996 between 22nd June and 23rd September 1996, a total of four site visits being made. This left a gap in recording for the spring period. In particular, no survey was undertaken during mid to late May when the hawthorn blossom along the northern margin of the common was at it's peak. A 5th survey visit was therefore made on 18th May 1997 in order to record spring insects and in particular to examine the hawthorn blossom for insects. The results of this visit are presented in this report, together with an update of the estimated entomological value of the site.

2.0 METHODS

This survey was initiated primarily to evaluate the saproxylic invertebrate value of Knaphill Common SSSI. However, because many other species of insects were likely to be encountered, a decision as to which insect groups to record had to be taken at the beginning of the survey.

To record only saproxylic species would have meant that a large number of potentially useful invertebrate records would have been lost, merely because the species concerned were not associated with dead-wood. Therefore, in order to avoid such an unnecessary waste of effort, it was decided that all insects that could be readily identified would be recorded and listed in this survey report. It should therefore be possible to analyse the species list and produce data that will be of greater practical use than a list of purely saproxylic species.

For example, the proportion of saproxylic species found in a particular recording compartment might be useful in determining the relative importance of the dead wood habitat in that part of the site. It might also provide a valuable comparison with any future survey results. It should also be possible to make comparisons of saproxylic invertebrate communities that have been recorded from other sites.

The survey was carried out using active sampling methods (i.e., sweeping, beating or by visual observation) and no pit-fall, malaise, flight interception or any other kind of traps were used to collect insects.

Most recording during the 1996 survey was in the recently widened main bridleway and the new clearings in compartment 1, in the open strip under the power-lines at the western edge of compartments 3/3 & 3/4, in the clearing created by the fallen beech trees 4V1 & 4V2 in compartment 4/1 and in the clearing around pond 4C in compartment 4/2.

On 18th May 1997, recording was virtually confined to compartments 1/2, 1/3,1/4, 1/5 & 1/6. A brief visual inspection along the power-lines at the western edge of compartments 3/3 & 3/4 and in the clearing around pond 4C in compartment 4/2 was also made. This revealed few insects and therefore it was decided to return to compartment I and gather as much information as possible in the remaining time available, where insects were known to be plentiful.

Species were recorded on a presence or absence basis and no attempt was made to assess the relative population size of any insect species recorded.

3.0 SURVEY VISITS

Four site visits were made during summer 1996: on 22nd June, 7th July, 5th August, & 23rd September 1996. The data for this part of the survey has already been submitted in a previous report (Hodge, 1996).

In order to complete this initial survey a further visit was made on 18th May 1997. Brief details of the weather conditions and the compartments surveyed are given below.

Visit No.	<u>Date</u>	Weather conditions	Compartments surveyed
5.	18th May1997	Cloudy and humid in morning after overnight storm. Sunny periods p.m. Wind SE Force 2; temp. approx. 20°C.	Comp. 1 (1/2, 1/3, 1/4, 1/5, 1/6) Comp. 3 (3/3) Comp. 4 (4/2 [4C])

4.0 SAMPLE SITE LOCATIONS AND DESCRIPTIONS

Adequate site descriptions for each compartment are given in Appendix 2 of the Naphill and Downley Commons Management Plan and therefore in-depth descriptions have not been given in this report. However, because insects usually have particular habitat preferences, survey sites were chosen on a selective basis and therefore it may be helpful to describe some of the more specialised aspects of the micro habitats where uncommon species were found.

The following information should be read in conjunction with that given my previous report (Hodge, 1996).

Habitat descriptions

i) Compartment 1

Almost the entire survey on 18th May 1997 was spent in this compartment. Recording was generally confined to the open areas, particularly in the grassland in the cleared area of compartment 1/5 and in the flowery north-eastern margin of the common. Spring blossom, especially hawthorn, was at it's peak and is a very important component of this part of the common. There are also a number of Rowans which are likely to be frequented by flying insects when they are in flower. In compartment 1/6 the flowery pond banks were also briefly examined.

ii) Compartment 3

A small amount of recording was carried out, mostly by sweeping the grassy margins of the path under the power line. Relatively few species of insects were observed here on 18th May 1997.

iii) Compartment 4

This compartment was surveyed very briefly as follows.

Compartment 4/2 [4C]

The main invertebrate interest in 1996 was near a dead standing oak and a group of large logs on the northern side of the pond. Few insects were observed when the site was revisited on 18th May 1997.

Compartment 4/2 [4V5]

This consisted of a large beech tree that had broken off several metres from it's base. There were also several large prostrate tree trunks lying on the ground. Few insects were observed when the site was revisited on 18th May 1997.

5.0 ENTOMOLOGICAL ASSESSMENT

This section should be read in conjunction with Paragraph 5.0 in Hodge (1996).

The day chosen for fieldwork was very favourable for recording insects. An overnight storm, followed by humid conditions with warm sunshine developing during the afternoon, combined with virtually no wind, ensured that large numbers of insects were active.

Although many additions to the 1996 list were recorded it should be noted that only one additional Nationally Scarce species was found. The reasons for this are difficult to explain since a high species diversity is usually accompanied by a proportionately higher number of notable species.

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A brief reassessment for each compartment visited is given below.

Compartment 1

Compartment 1 was by far the best area for insects at Naphill Common.

There were far more insects present on 18th May 1997 than on any of the previous visits, perhaps indicating the importance of the Spring flowers in this part of the site. This visit has resulted in a considerable number of insect species being added to the list prepared following the 1996 survey (Hodge, 1996) and it demonstrates the importance of visiting woodland sites during the May/June period when carrying out invertebrate surveys.

On 18th May 1997 the new clearings (especially those in Compartment 1/5) and the edges of the common were generally more productive than the main forest ride. In particular, the flowery woodland margin was considered to be the most important area of the entire common for Spring and early summer insects. Unfortunately the number of saproxylic species recorded has not been substantially increased and therefore, on the evidence obtained so far, it appears that the site is not very spectacular for insects associated with dead wood.

However, it should be remembered that saproxylic insects are frequently difficult to discover by conventional recording methods and many more species will probably be added to the list as time progresses.

Compartment 3

The area was visited briefly but few insects were seen, even along the path under the power line.

Compartment 4

Compartments 4/2 [4C] and 4/2 [4V5] were visited briefly but insects were generally very scarce.

6.0 SUMMARY FOR SPECIES RECORDED ON 18TH MAY 1997

Table 1 - SUMMARY OF SPECIES RECORDED ON 18th May 1997

INSECT ORDER	R	ECOR		COM spec		TME	T	TOTAL Saproxylic	TOTAL All
	1/2	1/3	1/4	1/5	1/6	3/3	4/2	Species	Species
COLEOPTERA (Beetles)	0	16	49	40	33	5	1	11	91
DIPTERA (Files)	0	1	8	4	6	0	0	1	13
DERMAPTERA (Earwigs)	0	1	1	0	1	0	0	0	1
HEMIPTERA-HETEROPTERA (Bugs)	2	3	8	10	2	0	0	0	16
HYMENOPTERA (Bees, wasps, ants, etc.)	0	0	5	3	1	0	1	0	9
LEPIDOPTERA (Butterfiles)	0	1	3	4	0	0	0	0	7
LEPIDOPTERA (Moths)	0	1	1	1	1	0	0	0	3
NEUROPTERA (Lacewings)	0	0	1	0	0	0	0	0	1
Red Data Book Species	0	0	0	0	0	0	0	0	0
Nationally Scarce Species	0	0	2	0	0	0	0	1	2
TOTAL SPECIES	2	23	76	62	44	5	2	12	151

Table 2 - SUMMARY SAPROXYLIC SPECIES RECORDED ON 18th May 1997

INSECT ORDER	R	ECOR	DING (Al	COM spec		TME	T	TOTAL Saproxyllc	TOTAL Ali
	1/2	1/3	1/4	1/5	1/6	3/3	4/2	Species	Species
COLEOPTERA (Beetles)	0	2	5	1	4	1	0	11	91
DIPTERA (Files)	0	0	0	1	0	0	0	1	13
DERMAPTERA (Earwigs)	0	0	0	0	0	0	0	0	1
HEMIPTERA-HETEROPTERA (Bugs)	0	0	0	0	0	0	0	0	16
HYMENOPTERA (Bees, wasps, ants, etc.)	0	0	0	0	0	0	0	0	9
LEPIDOPTERA (Butterfiles)	0	0	0	0	0	0	0	0	7
LEPIDOPTERA (Moths)	0	0	0	0	0	0	0	0	3
NEUROPTERA (Lacewings)	0	0	0	0	0	0	0	0	0
Red Data Book Species	0	0	0	0	0	0	0	0	0
Nationally Scarce Species	0	0	1	0	0	0	0	1	2
TOTAL SPECIES	0	2	5	2	4	1	0	12	150

Table 3 - SUMMARY OF RDB & NAT. SCARCE SPECIES RECORDED ON 18th May 1997

INSECT ORDER	R				IPAR ce spe		T	Saproxylic RDB + N	Total RDB + N
	1/2	1/3	1/4	1/5	1/6	3/3	4/2	Species	Species
COLEOPTERA (Beetles)	0	0	2	0	0	0	0	1	2
DIPTERA (Files)	0	0	0	1	0	0	0	0	0
DERMAPTERA (Earwigs)	0	0	0	0	0	0	0	0	0
HEMIPTERA-HETEROPTERA (Bugs)	0	0	0	0	0	0	0	0	0
HYMENOPTERA (Bees, wasps, ants, etc.)	0	0	0	0	0	0	0	0	0
LEPIDOPTERA (Butterfiles)	0	0	0	0	0	0	0	0	0
LEPIDOPTERA (Moths)	0	0	0	0	0	0	0	0	0
NEUROPTERA (Lacewings)	0	0	0	0	0	0	0	0	0
Red Data Book Species	0	0	0	0	0	0	0	0	0
Nationally Scarce Species	0	0	1	0	0	0	0	1	2
TOTAL RDB + NAT. SCARCE SPECIES	0	0	1	0	0	0	0	1	2

8.0 SUMMARY FOR ENTIRE SURVEY, INCLUDING 18TH MAY 1997 RECORDS

The data in tables 4 to 6 has been updated to include the May 1997 records.

Table 4 - SUMMARY OF SPECIES RECORDED

INSECT ORDER			CORD PART	ING MENT		18/5/97 additions to 1996	TOTAL SPECIES Saproxylic	TOTAL SPECIES All
	1 2 3 4 5					species list	Insects	Insects
COLEOPTERA (Beetles)	99	0	41	27	10	42	44	167
DIPTERA (Flies)	30	0	4	21	0	12	8	57
DERMAPTERA (Earwigs)	1	0	0	0	0	0	0	1
HEMIPTERA-HETEROPTERA (Bugs)	32	0	6	3	1	7	1	44
HEMIPTERA-HOMOPTERA (bugs)	7	0	2	1	1	0	0	9
HYMENOPTERA (Bees, wasps, ants, etc.)	14	0	1	9	0	7	7	27
LEPIDOPTERA (Butterflies)	12	0	3	2	0	4	0	17
LEPIDOPTERA (Moths)	4	0	0	0	0	3	0	4
NEUROPTERA (Lacewings)	1	0	0	0	0	1	0	1
ORTHOPTERA (Grasshoppers & crickets)	0	0	0	2	0	0	0	2
Red Data Book Species	1	0	0	1	0	6	0	1
Nationally Scarce Species	7	0	4	5	1	1	3	14
TOTAL SPECIES	196	0	56	65	12	75	59	328

Table 5 - SUMMARY SAPROXYLIC SPECIES

INSECT ORDER				PARTM ylic Spec		Additions to 1996 list	TOTAL Saproxylic	TOTAL All
	1 2 3 4 5							Species
COLEOPTERA (Beeiles)	25	0	13	12	6	4	44	167
DIPTERA (Flies)	4	0	1	7	0	1	8	57
DERMAPTERA (Earwigs)	0	0	0	0	0	0	0	1
HEMIPTERA-HETEROPTERA (Bugs)	1	0	0	0	0	0	1	44
HEMIPTERA-HOMOPTERA (bugs)	0	0	0	0	0	0	0	9
HYMENOPTERA (Bees, wasps, ants, etc.)	7	0	0	1	0	0	7	27
LEPIDOPTERA (Butterflies)	0	0	0	0	0	0	0	17
LEPIDOPTERA (Moths)	0	0	0	0	0	0	0	4
NEUROPTERA (Lacewings)	0	0	0	0	0	0	0	0
ORTHOPTERA (Grasshoppers & crickets)	0	0	0	0	0	0	0	2
Red Data Book Species	0	0	0	0	0	0	0	1
Nationally Scarce Species	1	0	2	2	0	0	3	14
TOTAL SAPROXYLIC SPECIES	37	0	14	20	6	5	59	328

Table 6 - SUMMARY OF RDB & NATIONALLY SCARCE SPECIES

INSECT ORDER	8		G COM Saprox			Additions to 1996 list	Saproxyšc RDB + N	Total RDB + N
	1	2	3	4	5	on 18/5/97	Species	Species
COLEOPTERA (Beetles)	4	0	4	3	1	1	8	10
DIPTERA (Files)	1	0	0	2	0	0	2	2
DERMAPTERA (Earwigs)	0	0	0	0	0	0	0	0
HEMIPTERA-HETEROPTERA (Bugs)	0	0	0	0	0	0	0	0
HEMIPTERA-HOMOPTERA (bugs)	0	0	0	0	0	0	0	0
HYMENOPTERA (Bees, wasps, ants, etc.)	3	0	0	1	0	0	1	3
LEPIDOPTERA (Butterflies)	0	0	0	0	0	0	0	0
LEPIDOPTERA (Moths)	0	0	0	0	0	0	0	Ō
NEUROPTERA (Lacewings)	0	0	0	0	0	0	0	0
ORTHOPTERA (Grasshoppers & crickets)	0	0	0	0	0	0	0	0
Red Data Book Species	1	0	0	1	0	0	0	1
Nationally Scarce Species	7	0	4	5	1	0	11	14
TOTAL RDB + NAT. SCARCE SPECIES	8	0	4	6	1	0	11	15

APPENDIX 1

INDEX OF ECOLOGICAL CONTINUITY FOR SAPROXYLIC COLEOPTERA

This section is unchanged from that shown in Hodge (1996), apart from the confirmation of the presence of Pyrochroa coccinea.

Table 7 - SUMMARY OF 'ANCIENT WOODLAND INDICATOR' SPECIES

AWI	NAT.	SPECIES	REC	ORDIN	G COM	IPARTI	MENT	TOTALS
Category	STATUS		1	2	3	4	5	for SSSI
		COLEOPTERA (Beetles)						
		COLYDIIDAE			1			
AWI3	local	Bitoma crenata	+	1				
		CUCUIDAE						
AWI3	local	Pediacus dermestoides	+		T			
		ELATERIDAE (Click beetles)					1	
AWI3	local	Stenagostus villosus	+					
		LYCIDAE					1	
AWI3	Nb	Platycis minuta			+			
		MORDELLIDAE						
AWI1	Na	Tomoxia bucephala			+	+		
		PYROCHROIDAE (Cardinal beedles)	-					
AWI3	Nb	Pyrochroa coccinea	+			+		
		SCYDMAENIDAE						
AWI3	local	Stenichnus bicolor	+-					
Number o	fawi 1 S _i	ecles recorded	0	0	0	1	0	1
Number o	fawi 2 S _i	ecies recorded	0	0	0	0	0	0
		ecies recorded	5	0	2	1	0	6
Total Nun	ber of AW	I Species recorded	5	0	2	2	0	7
		cal Continuity	5	0	2	4	0	9

ANCIENT WOODLAND INDICATOR SPECIES RECORDED

Seven species of Coleoptera listed as dead-wood indicator species in Harding & Rose (1986) were recorded from Knaphill Common during the 1996 invertebrate survey. Brief details of their distribution and ecology are given in Hodge (1996).

No additional dead-wood indicator species (i.e., species listed in Harding & Rose, 1986) were recorded from Knaphill Common on 18th May 1997.

APPENDIX 2

RED DATA BOOK & NATIONALLY SCARCE SPECIES

One Red Data Book and thirteen Nationally Scarce species of insects were recorded during the 1996 survey. Brief details of their distribution and ecology are given in the previous report (Hodge, 1996).

The following Nationally Scarce species were recorded on 18th May 1997.

Table 8 - COLEOPTERA (Beetles)

NAT.	SPECIES	REC	ORDIN	GCOM	PART!	STATUS	
STATUS		1	2	3	4	5	& ECOLOGY
	COLKOPTERA (Beetles)					30.000	
	CURCULIONIDAE (Weevils)					1	
Na	Hypera meles	+					Nationally Scarce Category A
	PYROCHROIDAE (Cardinal beetles)						
Nb	Pyrochroa coccinea	S					Nationally Scarce Category B
	Saproxylic species	1	0	0	0	0	\$6000000000000000000000000000000000000
	Nationally Scarce Species	2	0	0	0	0	
	Red Data Book Species	0	0	0	0	0	

COLEOPTERA (Beetles)

CURCULIONIDAE (Weevils)

Na Hypera meles

This rare weevil is associated with white clover *Trifolium repens* and possibly Lucerne *Medicago sativa* and restharrow *Ononis* species. The few recent records are scattered widely over southern England.

A male was swept off clover along the north-east edge of the common in compartment 1/4.

PYROCHROIDAE (Cardinal beetles)

Nb/ Pyrochroa coccinea

AWI3

This conspicuous cardinal beetle may be distinguished from the more widespread *Pyrochroa serraticornis* by the colour of the head, which is black. It is a woodland species and the larvae develop under the bark of oak, beech and elm. Listed as a Grade 3 Dead-wood Indicator species in Harding & Rose (1986).

An adult was recorded from compartment 1/4.

APPENDIX 3

LIST OF SPECIES RECORDED

All species recorded are listed in tables 9 to 16 below.

Species prefixed with @ in the NAT STATUS column were not recorded during the 1996 survey

Table 9 - COLEOPTERA (Beetles)

NAT.	SPECIES	T	DECO	DINIM	GCOM	CT ATT A			
STATUS	SPECIES	1/2	1/3						STATUS
DIMICS	ATTITI ATTITI ATT (III	1/2	1/3	1/4	1/5	1/6	3/3	4/2	& ECOLOGY
<u> </u>	ATTELABIDAE (Weevils) Attelabus nitens			ļ	 -	ļ	<u> </u>	ļ	
<u>@</u>	Rhynchites aequatus		ļ	ļ <u>.</u>	+	ļ <u>.</u>			Common on oak
	BRENTIDAE (Weevils)		ļ	+	+	+			Common on hawthorn
	Apion frumentarium	-	ļ	<u> </u>		ļ			
<u>@</u>	Perapion curtirostre			+		ļ			Common on Rumex
@	Perapion hydrolapathi	-[+		ļ			Common on Rumex
<u> </u>	Protapion dichroum		+		+				Common on Rumex
	BYTURIDAE (Raspberry beetles)	-1		+	 				Common on Trifolium
				ļ <u>.</u>	<u> </u>	 			
 	Byturus tomentosus CANIHARIDAE (Soldier beetles)	-		+		+	 		Common
		-			 	l	<u></u>		
<u> </u>	Cantharis decipiens		+	+	+	+	ļ	ļ	Common
	Cantharis nigricans				+				Common
	Cantharis pellucida		+	+	+	+			Common
	Cantharis rustica			+	+	+	ļ		Common
	Rhagonycha lignosa		ļ		+	+			Common
	CARABIDAE (Ground beetles)	ļ							
	Abax parallelepipedus						S	<u></u>	Common
	Dromius quadrimaculatus	.		S					Common in woodland habitats
	CERAMBYCIDAE (Longhorns)			<u> </u>					
@	Clytus arietis	1	S						Common in woodland habitats
	Grammoptera ruficornis					8	-		Common in woodland habitats
	CHRYSOMELIDAE (Leaf beetles)								
@	Bruchus rufimanus			,_,	+	+			Common on vetches
@	Bruchus rufipes			+	+				Common on vetches
<u></u>	Lochmaea crataegi				+				Common on hawthorn
@	Phaedon tumidulus				+				Common on Umbelliferae
	Phyllotreta nigripes			+	+				Common on crucifers
<u>@</u>	Phyllotreta ochripes				+				Common on Alliaria petiolata
	Phyllotreta undulata			+					Common on crucifers
	COCCINELLIDAE (Ladybirds)								
	Adalia bipunctata					+			Common
	Adalia decempunctata				+	+			Common
	Calvia quatiuorodecimguttata								Common
	Coccinella septempunctata		+	+	+	+	+		Common
	Exochomus quadripustulatus				+				Common
	Propylea quattuordecimpunctata		+	+	+				Common
@	Rhypobius litura				+				Common
	Tytthaspis sedecimpunctata		+			+			Common
	CRYPTOPHAGIDAE								
@	Cryptophagus scanicus			+					Common in fungi
	CURCULIONIDAE (Weevils)								
@	Anthonomus pedicularius			+					Common on hawthorn
	Barypeithes pellucidus		+						Common at plant roots
@	Ceutorhynchus assimilis				+				Common on crucifers
	Ceutorhynchus pallidactylus				+				Common on crucifers
	Coeliodes dryados	1		+	···				Common on oak
@	Curculio glandium	 			+				Common on oak
@	Curculio nucum				·····	+			Local on hazel
	Curculio pyrrhoceras		+			-			Common on oak
@	Curculio venosus	1	+	+	+	+			Common on oak
Na @	Hypera meles			+					
@	Leiosoma deflexum			+					Nationally Scarce Category A
@	Magdalis ruficornis			7'					Common
	Nedyus quadrimaculatus	}				S			Local on Rosaceae
	Ottorhynchus singularis		+	+	+				Common on Urtica diotca
	Ouen nynemus singularis			- 1	+				Common on trees

Table 9 - COLEOPTERA (Beetles) - continued

NAT.	SPECIES		RECO	RDINC	COM		STATUS		
STATUS	ter as one had defined for	1/2	1/3	1/4	1/5	1/6	3/3	4/2	& ECOLOGY
	CURCULIONIDAE (Weevils) - cont.	***************************************							
@	Parethelcus pollinarius				+				Common on Urtica dioica
	Phyllobius argentatus					+			Common on trees
@	Phyllobius maculicornis				+	+			Local on trees and shrubs
<u>@</u>	Phyllobius oblongus					+			Common on trees
@	Phyllobius pomaceus				+				Local on <i>Urtica dioica</i>
	Phyllobius pyri			4	+	+	+		Common on trees
@	Phyllobius roboretanus			+	+				Common
@	Polydrusus cervinus		+	+		+			Common on trees
	Polydrusus undatus			+	+				Common on trees
@	Rhinoncus pericarpius			+					Common on Rumex
	Rhynchaenus fagi			+	+		+		Common on beech
	Sitona lineatus				+				Common on legumes
	Strophosoma melanogrammum		4	+	+		+		Common on trees
	DERMESTIDAE								
	Anthrenus verbasci					+			Common
	ELATERIDAE (Click beetles)								
	Agriotes acuminatus			+	+	+		+	Common in woodland habitats
	Agriotes pallidulus		+	+	+	+			Common in woodland habitats
	Athous haemorrhoidalis	 	+	+	+	+			Common in grassland habitats
	Dalopius marginatus	.		<u> </u>	<u>s</u>				Common in woodland habitats
	Denticollis linearis		3	S			,		Common in woodland habitats
<u>@</u>	Kibunea minuta		ļ	<u></u>	+				
	Melanotus villosus			S					Common in woodland habitats
	LATHRIDIIDAE (Fungus beetles)		ļ						
	Aridius bifasciatus		 	+					Соттол
	Aridius nodifer		ļ	+					Common
	Cortinicara gibbosa								Common
@	Corticarina fuscula			+					Common
@	Enicmus transversus		ļ	+				ļ	Common
	MELYRIDAE								
	Malachius bipustulatus			<u> </u>		+		<u> </u>	Common on flowers
_	NITIDULIDAE		ļ	ļ <u>.</u>				ļ	
@	Cychramus luteus	<u> </u>		+	+	+		ļ	Common on flowers
	Epuraea aestiva Epuraea melanocephala			+				ļ	Common on flowers
@	Meligethes aeneus			<u>-</u> -		+			Common on flowers
@	Meligethes atratus			+	·				Common on Stachys sylvatica
<u>(a)</u>	OEDEMERIDAE			-					COMMENS ON DELETING SYMMETICS
	Oedemera lurida			 	+				Common on flowers
	PYROCHROIDAE (Cardinal beetles)			 	<u> </u>	 		 	COMMING ON HORSE
Nb/AWI3	Pyrochroa coccinea			S	 			 	Nationally Scarce Category B
(A)	Pyrochroa serraticornis		!		 	S	 		Common
<u> </u>	RHIZOPHAGIDAE (Bark beetles)			 		<u>-</u> -			
	Rhizophagus dispar		 			S			Common under sappy bark
	SCRAPTUDAE			 			 		
@	Anaspis humeralis	l		+	 	 			Common on flowers
	Anaspis maculata		 	+	 	+			Common on flowers
@	Anaspis regimbarti				 	+			Common on flowers
	STAPHYLINIDAE (Rove beetles)				 				
@	Dropephylla floralis	· · · · ·	l	+	<u> </u>	l		l	Common
@	Phyllodrepa ioptera	l		T		+			Common
@	Plataraea brunnea			+					Local
@	Quedius scintillans			+					Common
<u> </u>	THROSCIDAE (Click beetles)			Γ					
@	Trixagus carinifrons			S					Local
	Trixagus dermestoides			+					Common in woodland habitats
								300.000	
	Saproxylic species	0	2	5	1	4	1	0	
	Dead Wood Indicators (AWI)	0	0	1	0	0	0	0	
	Nationally Scarce Species	0	0	2	0	0	0	0	
	TOTAL SPECIES	0	16	49	41	33	5	1	

Table 10 - DIPTERA (Flies)

NAT.	SPECIES		RECO	RDIN	GCOM	IPART	MENT	Î	STATUS
STATUS		1/2	1/3	1/4	1/5	1/6	3/3	4/2	& ECOLOGY
	ASILIDAE (Robber flies)								
@	Dioctria rufipes					+			Common
	BIBIONIDAE								
@	Bibio marci		+	+	+	+			Common
@	Bibio leucopterus					+			Common
@	Bibio varipes			+					Common
@	Dilophus febrilis			+-					Common
	DOLICHOPODIDAE (Long-legged flies)]							
@	Hercostomus cupreus			+					Common
	EMPIDIDAE (Dance flies)								
@	Empis femorata			+		+			Common
@	Empis nuntia			+					Common
@	Empis praevia	Ì		+	+	+			Common
	Impis tessellata					+			Common
@	Oedalia holmgreni				S				Common in woodland habitats
@	Rhamphomyia crassirostris			+					Common
@	Rhamphomyia tarsata				+				Common
					******	*****		*****	
	Saproxylic species	0	0	0	1	0	0	0	
	TOTAL SPECIES	0	1	8	4	6	0	0	

Table 11 - DERMATERA (Earwigs)

NAT.	SPECIES		RECO	RDING	COM	STATUS			
STATUS		1/2	1/3	1/4	1/5	1/6	3/3	4/2	& ECOLOGY
	FORFICULIDAE								
	Forficula auricularia (Ezrwig)		+	+		+			Common
	TOTAL SPECIES	0	1	1	0	1	0	0	

Table 12 - HEMIPTERA-HETEROPTERA (Bugs)

NAT.	SPECIES		RECO	RDING	COM	IPART	MENT	ì	STATUS
STATUS		1/2	1/3	1/4	1/5	1/6	3/3	4/2	& ECOLOGY
	ACANTHOSOMATIDAE (Shieldbugs)								
@	Acanthosoma haemorrhoidale			+					Common on hawthorn Crataegus
	COREIDAE (Squash bugs)								
	Coreus marginatus			+	+				Common on Rumex & Polygorum
	LYGAEIDAE (Ground bugs)								
@	Scolopostethus thomsoni				+				Common
@	Taphropeltus contractus			+					Local, on Boraginaceae, etc.
	MIRIDAE (Capsid bugs)								
	Dryophilocoris flavoquadrimaculatus		+	+					Common on oak Quercus
@	Hapalaraea thoracica			+	+	+			
	Liocoris tripustulatus				+				Common on Urtica dioica
@	Orthops cervinus				+				
	Stenodema laevigatum		+		+				Common on grasses
	PENTATOMIDAE (Shield bugs)								
	Aelia acuminata				+				Common on grasses
	Dolycoris baccarum	+		+	+				Common on thistles, etc.
@	Burydema oleracea				4				Local on Cruciferae
	Bysarcoris fabricii		+						Common on several labiates
	Palomena prasina	+			+				Common on several plants
@	Sehirus luctuosus			+					Local on Myosotis
	RHOPALIDAE								
	Rhopalus subrufus			+		+			Common on Hypericum
	TOTAL SPECIES	2	3	8	10	2	0	0	

Table 13 - HYMENOPTERA (Bees, wasps, ants, sawflies, etc)

NAT.	SPECIES		RECO	RDIN	GCOM	STATUS			
STATUS		1/2	1/3	1/4	1/5	1/6	3/3	4/2	& ECOLOGY
	APIDAE (Bees)	Ì							
	Andreninae (Solitary bees)								
@	Andrena scotica			+	+	1			Common
	Anthophorinae (Solitary bees)	1				T			
	Nomada fabriciana			+					Common
@	Nomada flava			+			l	+	Common
@	Nomada flavogutiata			+					Common
	Apinae (Social bees)								
@	Bombus pascuorum				+				Common
	Halictinae (Solitary bees)								
@	Lasioglossum calceatum					+			Common
	Lasiogiossum leucozonium								Common
	Megachilinae (Solitary bees)								
@	Osmia rufa			+					Common
	ARGIDAE (Sawflies)								
@	Arge cyanocrocea				+				Common; larvae on Rubus
indularia de la constanta de l									
	TOTAL SPECIES	0	0	5	3	1	0	1	and the state of t

Table 14 - LEPIDOPTERA (Butterflies)

NAT.	SPECIES		RECO	RDING	G COM	STATUS			
STATUS		1/2	1/3	1/4	1/5	1/6	3/3	4/2	& ECOLOGY
	LYCAENIDAE		1						
@	Lycaena phlaeas (Small Copper)		 	1	l	l			Common
	Quercusia quercus (Purple Hairstreak)			+					Common
	NYMPHALIDAE		·	,					
@	Aglais urticae (Small Tortoiseshell)				+				Common
	PIERIDAE								
@	Anthocharis cardamines (Orange-tip)			+	+	-			
	Pieris napi (Green-veined White)				+				Common
@	Pieris brassicae (Large White)				+				Common
	SATYRIDAE		1						
	Pararge aegeria (Speckled Wood)		+	+					Common

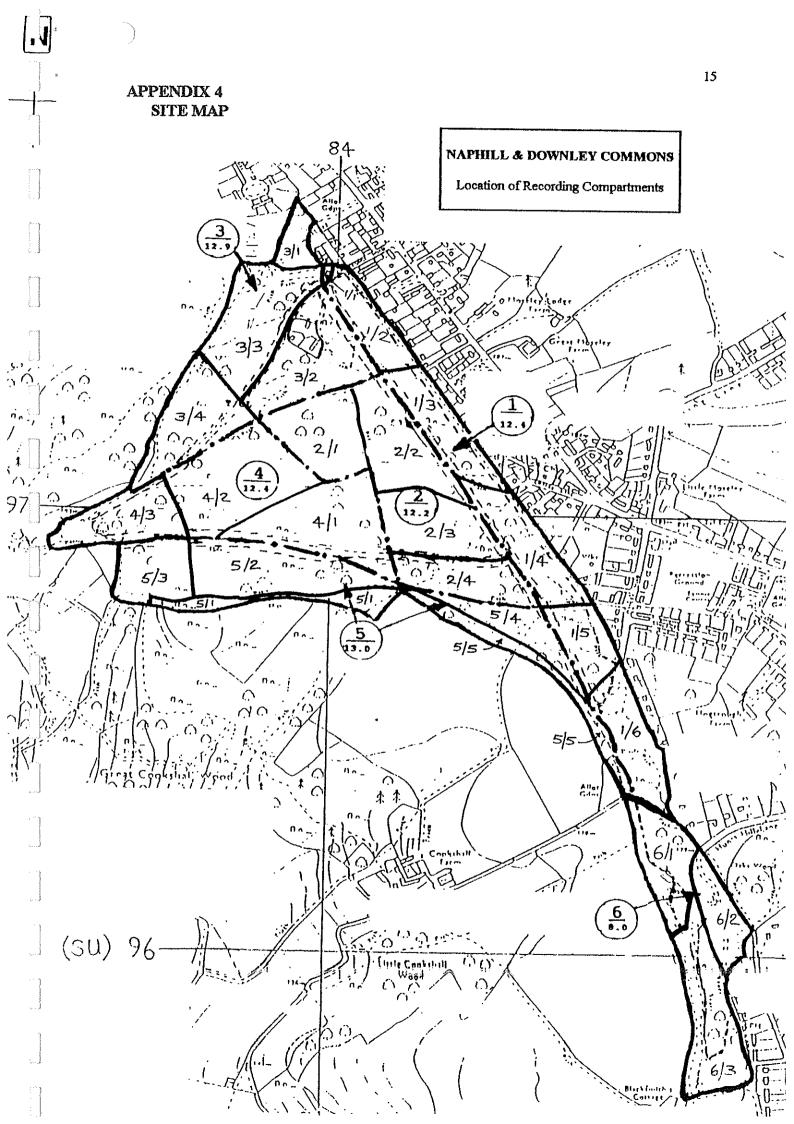
	TOTAL SPECIES	()	1	3	A.	n	0	0	<u>elektristististististististististististististi</u>

Table 15 - LEPIDOPTERA (Moths)

NAT.	SPECIES		RECO	RDIN	G COM	STATUS			
STATUS		1/2	1/3	1/4	1/5	1/6	3/3	4/2	& ECOLOGY
	GEOMETRIDAE								
@	Peteropora chlorosata (Brown Silver-line)		+	+					Common; larvae on bracken
	NOCTUIUDAE							1	
@	Panemeria tenebrata (Small Yellow Underwing)					+			Local; larvae on Cerastium holosteoides
@	Callistege mi (Mother Shipton)				+				Local; larvae on Trifolium
	TOTAL SPECIES	0	1	1	1	1	0	n	

Table 16 - NEUROPTERA (Lacewings)

NAT.	SPECIES		RECO	RDIN	GCOM	STATUS			
STATUS		1/2	1/3	1/4	1/5	1/6	3/3	4/2	& ECOLOGY
	HEMEROBIIDAE (Brown Lacewings)								
@	Micromus paganus			+					Common
	TOTAL SPECIES	0	0	1	0	0	0	0	



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PETER J. HODGE

Consultant Entomologist
Ringmer (01273) 812047

8 Harvard Road, Ringmer, Lewes, East Sussex, BN8 5HJ 2nd September 1997