

Further invertebrate survey of  
RAF Lakenheath SSSI  
July 1993

No. 146a - English Nature Research Reports



working today  
for nature tomorrow

English Nature Research Reports No. 146

**No 146 A**

**FURTHER INVERTEBRATE SURVEY  
OF RAF LAKENHEATH SSSI, JULY 1993**

RS Key, S G Ball, M Edwards, D A Procter & D A Sheppard

Further Copies of this report can be obtained from  
English Nature, Northminster House, Peterborough PE1 1UA

ISSN 0967-876X  
© English Nature 1995



# FURTHER INVERTEBRATE SURVEY OF RAF LAKENHEATH SSSI IN JUNE 1993

Roger S Key\*, David A Sheppard\*, Stuart G Ball#, Deborah A Procter#, & Mike Edwards\*

\* Lowlands Team, English Nature, Peterborough

# Species Branch, Joint Nature Conservation Committee, Peterborough

\* Leaside, Caron Lane, Midhurst, W Sussex

## Contents

1.	Introduction	1
2.	Recording Methods	2
3.	Site Description	2
4.	Sampling Points	2
5.	Results	3
6.	Discussion	3
7.	Data Archive	4
8.	Acknowledgements	4
9.	References	4
10.	Erratum in ENRR 47	5

## Appendices

1	Map showing SSSIs and sample stations	5a
2	New species found at RAF Lakenheath in 1993 that had not been recorded in 1992	6
3	Data Sheets for RDB & Nationally Scarce Category A species	26
4	Full list of all species recorded in June 1993	33
5	Lists for each sampling station, sorted taxonomically	36
6.	Explanation of status categories used	48

## 1. INTRODUCTION

On 21st June 1992, members of English Nature's Invertebrate Section of the Species Conservation Branch and JNCC's Species Conservation Branch surveyed parts the RAF/USAF air base at Lakenheath and the results were produced as a report (Key et al, 1993). Access to the site is restricted to periods when aircraft are not using the base and the site had been little worked for invertebrates prior to the visit. That brief survey produced records of 290 species, including 7 Red Data Book and 30 Nationally Scarce species (see below for explanation of categories). Most of the recorded species, especially the solitary wasps and bees, are dependent on dry sandy conditions typical of Breckland and our conclusion was that the site would warrant at least grade "B" (equivalent to SSSI on the basis of its invertebrate fauna) within the Invertebrate Site Register, just on the results of that one day's survey.

A second opportunity to visit the site arose in the week 18-25 July 1993, not only to carry out further net sampling, but also to set various types of passive invertebrate traps to be collected a week later.

## 2. RECORDING METHODS

Invertebrate collecting methods used at all sites included use of sweep and swish nets, water trapping using five 25cm diameter white bulb bowls containing 20% ethylene glycol per site, pitfall

## 2. RECORDING METHODS

Invertebrate collecting methods used at all sites included use of sweep and swish nets, water trapping using five 25cm diameter white bulb bowls containing 20% ethylene glycol per site, pitfall trapping using five 10cm diameter plastic drinking cups with 20% ethylene glycol preservative per site, and direct searching. A single white Malaise trap was used at site five only, the site with the highest degree of structural diversity of vegetation and the one with the greatest abundance of flowers. As in 1992, no attempt was made to do any quantitative recording, the aim being to add to the species list. All traps were laid on Sunday 18th July and collected on Sunday 25th July. All net sampling was carried out on 25th July only.

## 3. SITE DESCRIPTION (taken directly from Key et al, 1993).

Most of the SSSI consists of areas of very short mown Breckland adjacent to the various runways of the airbase. A few areas of longer grass also occur and in some areas the Breck grassland is bordered by oak/birch/pine woodland and scrub. The grassland is dominated by sheep's fescue and common bent, with cocksfoot and Yorkshire Fog in ranker areas which are not close mown. The grassland supports a high density of forbs, including a large number of Nationally Scarce plants, some of which appear to flower infrequently because of the very close mowing. As far as could be ascertained, the site had not previously been investigated entomologically and is not included in the Invertebrate Site Register for the Suffolk Breckland (Foster, 1987).

## 4. SAMPLING POINTS

Four of the six individual sampling sites used in 1992 were chosen to give representation of the various vegetation structures present on the site. These were:-

Site One TF727813

Outside the SSSI. Longer vegetation along the northern fence-line of the site, short mown grass, a length of elder and hawthorn hedge and flower-rich ruderal vegetation on a large mound of sandy soil. Chosen for variety of vegetation structures and types, to include the hedgerow and the bare sandy soil of the soil dump.

Site Two TF738823

Short grass with *Silene otites*. Large quantities of concrete and wooden material some of which was turned over to look for insects sheltering underneath. Chosen in 1992 to search (unsuccessfully) for *Hadena irregularis* feeding on *Silene otites*.

Site Five TF749825

Short grass by the runway plus an area with pines, oak, gorse and bramble scrub together with longer grass with various flowering composites. This area is also outside the SSSI. Chosen to represent the scrub community and also because the flowering shrubs were acting as a "honeypot" for nectar feeding species. The Malaise trap was situated here.

Site Six TF746820

In 1992, this had been an area of taller grassland with abundant yellow melilot and *Silene otites*, but in 1993 was found to have been closely mown. Originally it was chosen to search for *Hadena irregularis* in different circumstances from Site 2, and was resampled to see if a rich short-sward fauna could develop in the space of one year.

Golf Course TF750811

In addition to the sites sampled in 1992, the RAF golf course to the south-east of the runway areas was also sampled, but only by net sampling and searching on xth June. This area, outside the SSSI, has greater structural diversity than the closely mown swards of the grassland between the runways and has various planted native and exotic shrubs and trees, while roughs are left as

considerably longer turf, but are not so long as to occlude the Breckland herbs such as *Silene otites* which grew profusely in places (although no *Hadena irregularis* were found).

## 5. RESULTS

A total of 361 species was recorded in 1993, of which 216 species were not recorded in 1992 and 152 species recorded in 1992 were not recorded in 1993, bringing the total number of species recorded from the two surveys to 513.

Of the species recorded only in 1993 there are four additional Red Data Book (Shirt; 1987) species and 17 extra Nationally Scarce (Ball; 1986, Falk; 1991a, 1991b, Hadley; 1984, Hyman & Parsons; 1992, Kirby; 1992, Merret; 1990) species, bringing the totals recorded to 11 RDB and 47 Nationally Scarce species from the two surveys.

A taxonomically ordered listing of all species recorded during the 1993 survey is given in Appendix 4

An annotated list of species recorded for the first time in 1993 and ordered by descending order of status and then alphabetically is given in Appendix 2.

Data sheets from the Species Group Reviews are given for Red Data Book and Nationally Scarce Category A species in Appendix 3.

Complete lists of all records from each of the sampling stations is given in Appendix 5.

## 6. DISCUSSION

Considering that both visits were made in June/July and that 216 species were found in 1993 only and 152 species in 1992 only, it is suggestive that there remain to be discovered very many additional species in the groups sampled. Further survey, in particular of other groups of invertebrates not recorded by the specialists visiting in 1992 and 1993, and visits at other times of year would again almost certainly find more species of note.

Ecologically, RAF Lakenheath is part of a wider area of Breckland habitat including three adjacent SSSI's. Wangford Glebe SSSI (Suffolk Wildlife Trust) reserve is separated 100 metres from RAF Lakenheath by Wangford Farm which has open sandy fields with ruderals, an open sandy lane and hedgerow and which is likely to act as a corridor. Maidcross Hill SSSI is adjacent to the perimeter of RAF Lakenheath, although separated by about 30 metres of non-SSSI grassland and Lakenheath Warren SSSI is immediately across the A1065 from RAF Lakenheath, separated by the golf course which consists of open grassland, including Breckland forbs, with numerous bushy species. All of these SSSIs have been shown to be of importance for invertebrates (Foster, 1987). The road verges of the A1065 has also been shown to be an very important habitat for scarce species associated with regular disturbance and may act as a useful corridor between areas (Eversham & Telfer, 1994). Taken together, the sites in this area merit Nature Conservation Review Status (Ratcliffe 1977).

There may be considerable interchange of individuals and species between these sites and habitats present on one site, such nectar plants and structured vegetation may be of importance to invertebrates of nearby sites. The areas separating the SSSIs all consist of open habitats and it is preferable that they remain so. Construction of buildings or planting of trees on the intervening land should be discouraged.

As in the 1992 survey, the presence of a greater structural diversity in the vegetation and greater abundance of flowers at Sites 1 and 5, and on the golf course, led to a greater species richness and probably enabled us to find more easily species that were attracted to these areas but may have been breeding in the shorter sward of the SSSI grassland

These areas are likely to be important as nectaring sources to the fauna of RAF Lakenheath SSSI and possibly for some of the surrounding sites, where there are relatively very few flowers at most times of year. Some of the species inhabiting the short swards of RAF Lakenheath SSSI may need some bushy vegetation as territory or courting vantage points and some of the scarce phytophagous species are associated with plants that do not occur (or do not flower) in the closely mown sward, such as Viper's Bugloss, Comfrey and flowering stems Yarrow and various crucifers.

While it is not suggested that these areas should necessarily be added to the SSSI it would be preferable for their management to be sympathetic to the conservation needs of the invertebrate fauna, in particular, the retention of some areas of slightly longer sward grassland and disturbed ground with flowering ruderal plants such as viper's bugloss, yarrow, poppy and various composites. The large sand pile adjacent to, but not included in the SSSI area at Site One was very useful in this respect, being covered in flowering weeds and this part of site was very rich in bees and wasps, some of which were found to be breeding there. While we understood that this heap was soon to be removed, it is desirable that similar disturbance and colonization by flowering weed species occur again here or elsewhere regularly on the site.

## **7. DATA ARCHIVE**

As before, all data is currently stored on EN's Biological Recording Package RECORDER, by Dr S.G. Ball, on Centre no 1002 - Dr R. S. Key's Personal Records, at 67 Peterborough Road, Crowland, Lincs, pending the update of JNCC's Invertebrate Site Register (ISR) to use RECORDER, whereupon the information will be downloaded into the ISR.

## **8. ACKNOWLEDGEMENTS.**

Again we are grateful to Squadron Leader Colin Rawe for giving permission to visit RAF Lakenheath and for arranging our visit. Also our thanks to Dr Anne Brenchley for arranging the visit with the RAF and to Dr Peter Kirby for identifying the Heteroptera and Homoptera.

## **9. REFERENCES**

Ball, S.G. (1986). Terrestrial and Freshwater Invertebrates with Red Data Book, Notable or Habitat Indicator Status. Invertebrate Site Register Report Number 66. Nature Conservancy Council, Peterborough. Unpublished.

Bratton, J.H. (ed)(1991). British Red Data Books: 3. Invertebrates other than insects. Joint Nature Conservation Committee. Peterborough.

Eversham, B.C. (1983). Defining rare and notable species, with special reference to the invertebrates - a discussion. Invertebrate Site Register Report Number 49. NCC. London. Unpublished.

Eversham, B.C. & Telfer, M.G. (1994). Conservation value of roadside verges for stenotypic heathland Carabidae: corridors or refugia?. *Biodiversity and Conservation* **3**, 538-545.

Falk, S.J. (1991a). A review of the scarce and threatened flies of Great Britain. Part I. Research and Survey Series: 39. NCC. Peterborough.

Falk, S.J. (1991b). A review of the scarce and threatened bees, wasps and ants of Great Britain. Research and Survey Series: 35. NCC. Peterborough.

Foster, A.P. (1987). Review of Invertebrate Sites in England - Suffolk Breckland.

Invertebrate Site Register Report Number 91 (two parts). NCC. Peterborough. Unpublished.

Hadley, M. (1984). A national review of British macrolepidoptera listing both national and regional rarities. Invertebrate Site Register Report Number 46. NCC. London. Unpublished.

Hyman, P. & Parsons, M. (1992). A review of the scarce and threatened Coleoptera of Great Britain. Part 1. UK Nature Conservation: 3. JNCC. Peterborough.

Key, R.S., Drake, C.M., Sheppard, D.A. & Procter, D.A. (1993). An invertebrate survey of RAF Lakenheath SSSI, Suffolk on 21st June 1992. English Nature Research Reports No 47. English Nature, Peterborough. 51pp.

Kirby, P. (1992). A review of the scarce and threatened Hemiptera of Great Britain. UK Nature Conservation: 2. JNCC. Peterborough.

Merrett, P. (1990). A Review of the Nationally Notable Spiders of Great Britain. CSD Contract Surveys. 127. NCC. Peterborough.

Ratcliffe, D.A. (1977). A Nature Conservation Review. Cambridge University Press. 2 Vols.

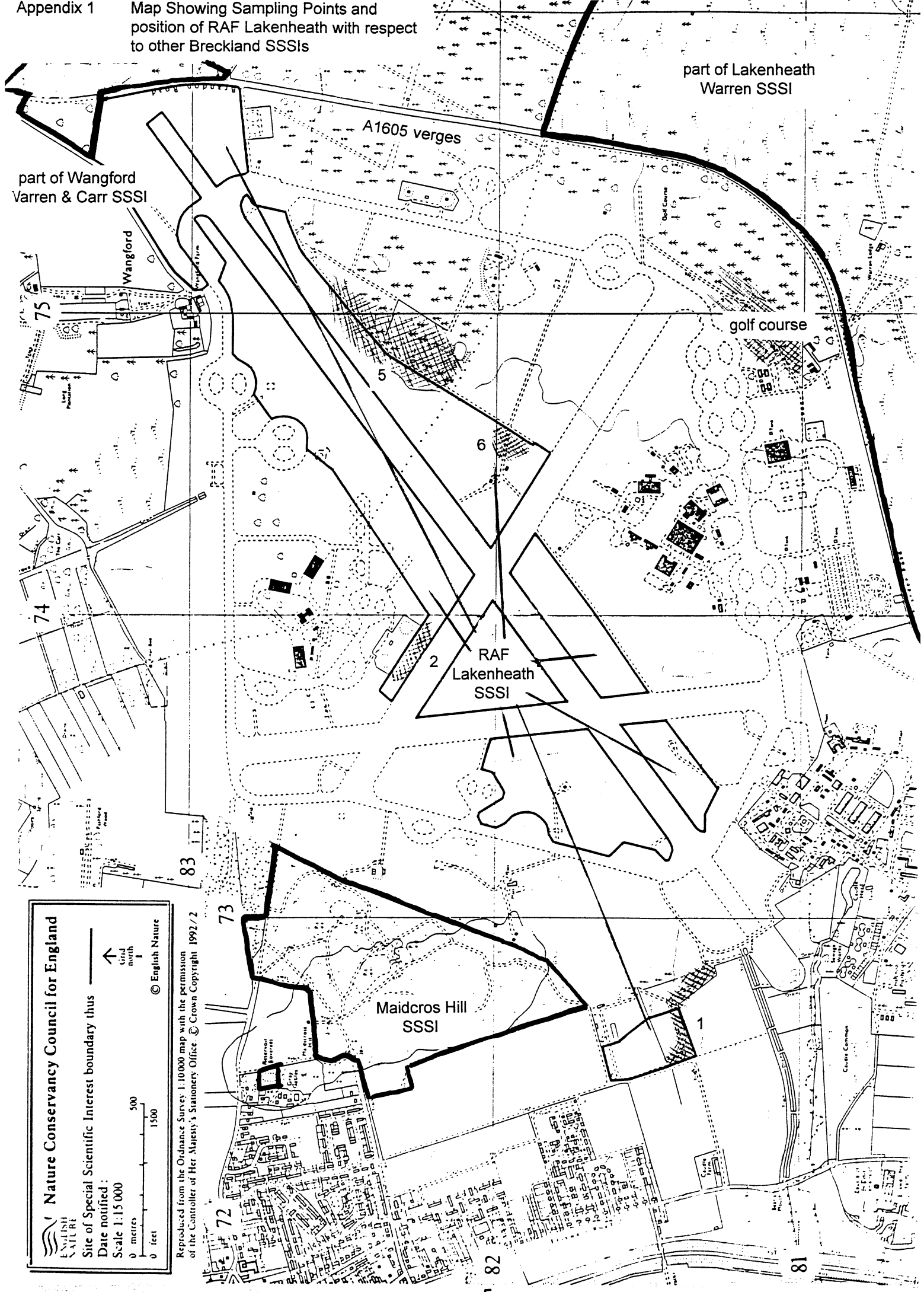
Shirt, D.B. (1987). British Red Data Books: 2. Insects. Nature Conservancy Council. Peterborough. 402 pp.

## **10 Erratum in English Nature Research Reports No 47**

Please note that on page 1 in the Contents list for Appendix 4, the survey date is given as 21st June 1993. Of course this should be 21st June 1992.







**Nature Conservancy Council for England**

Site of Special Scientific Interest boundary thus ———

Date notified: ———

Scale 1:15 000

0 metres 500 1500

0 feet

↑ true north  
↑ magnetic north

© English Nature

Reproduced from the Ordnance Survey 1:10 000 map with the permission of the Controller of Her Majesty's Stationery Office. © Crown Copyright 1992/2



## APPENDIX 2

## NEW SPECIES

Species found at RAF Lakenheath in 1993 that had not been recorded in 1992

Sorted first in descending order of National Status and then alphabetically. Annotations derived from the Biological Recording Package RECORDER.

### RDB2 (+ see Data Sheets)

*Diastictus vulneratus* (Sturm, 1805) Coleoptera Scarabaeidae RDB2  
Small brown scarab beetle. Restricted to the Breckland where it has been recorded from rabbit burrow entrances, under stones and in moss and ground litter.

*Philanthus triangulum* (Fabricius) Hymenoptera Sphecidae RDB2  
A yellow and black digger wasp found in lowland heath, coastal sand dunes and cliffs where it excavates nest burrows in sandy soil. The nest is provisioned with paralysed bees, mostly honeybees *Apis mellifera*, but wild species will also be taken. The British stronghold is the Isle of Wight, with recent records also from Suffolk and Norfolk. Public pressure (= trampling) may benefit some sites by keeping the vegetation cover sparse.

### RDB3 (+ see Data Sheets)

*Andrena hattorfiana* (Fabricius) Hymenoptera Andrenidae RDB3  
A mining bee found on dry, usually calcareous, grassland. It has been recorded from coastal landslips and cliff tops, chalk downland, chalk heath (especially in East Anglia), road verges, traditional agricultural settings and fixed coastal dune. Nesting occurs in exposed earth or perhaps short swards, and the females gather pollen almost exclusively from *Knautia* or, in some populations, *Scabiosa columbaria*. This is a large and distinctive bee which has declined substantially. Post-1970 records are known for about 15 sites in southern England from Cornwall to Norfolk.

*Lasioglossum brevicorne* (Schenck) Hymenoptera Halictidae RDB3  
A small mining bee scarce and reported from southern counties of England and East Anglia.

### Nationally Scarce A (+ see Data Sheets)

*Masoreus wetterhalli* (Gyllenhal, 1813) Coleoptera Carabidae Na  
4.5-5.5mm long reddish brown ground beetle. Xerophilous species occurring on sand and gravel with sparse vegetation, often near the sea. Southern species, Cornwall to Norfolk, but very local.

*Oxybelus mandibularis* Dahlbom Hymenoptera Sphecidae Na  
Digger wasp. Occurs in dry sandy areas from Devon to Cheshire and Norfolk. Preys on Diptera especially muscids. Local and uncommon.

### Nationally Scarce B

*Amara equestris* (Duftschmid, 1812) Coleoptera Carabidae Nb  
8-10.5mm long brownish bronze ground beetle found in open areas, particularly heathland and sand dunes, gravel pits and calcareous grassland. Phytophagous. Widespread but very local.

*Amara fulva* (Mueller, 1776) Coleoptera Carabidae Nb  
8-10mm long dull orange brown ground beetle restricted to dry, open, sandy places. Phytophagous, feeding mainly on seeds, the adults living under stones, under leaf rosettes or often burrowing in sandy soil in the daytime. Widespread but very local and declining.

- Brachymera minuta* Hymenoptera Chalcididae Nb  
Parasitic wasp of dune systems. Has been reared from flesh fly (*Sarcophagidae*) larvae. Mainly southern species.
- Chrysis helleni* Linsenmaier Hymenoptera Chrysididae Nb  
A ruby-tailed wasp which is a parasitoid of the larvae of *Tachysphex pompiliformis*, a locally common sphecid wasp that digs its burrows in sandy areas such as heathland, coastal dunes and sandpits. Adults have been found near host burrows and on umbellifer flowers from May to September. Widespread but very local in southern England from W. Cornwall to Surrey and N. Essex and N. to Bedfordshire, W. Norfolk and Nottinghamshire.
- Dasygaster altercator* (Harris) Hymenoptera Melittidae Nb  
A mining bee occurring mainly in sandy coastal habitats, especially dunes. Also recorded, rather more sparingly, from sandy locations inland such as heaths and sandpits. Nesting burrows are dug in aggregations in bare areas including footpaths. Adults are on the wing from June to September and the females gather pollen exclusively from yellow composites such as *Senecio*. Still reasonably widespread in southern Britain as far north as S. Lancs and Norfolk but seems to have declined at inland sites, probably due to the loss and deterioration of heathland and other sandy habitats.
- Evagetes dubius* (Vander Linden) Hymenoptera Pompilidae Nb  
Medium sized (4-9mm) spider hunting wasp found on sandy heathland. Other members of this genus are cleptoparasitic - stealing prey off other pompilids, but there are old literature references to this particular species hunting its own spiders. Infrequent, sometimes locally common, in south-east England, Dorset and Norfolk.
- Graptopeltus lynceus* (Fabricius) Hemiptera Lygaeidae Nb  
Confined to the southern half of Britain. Found in dry, open habitats, usually on sand but less often on chalk, including coastal dunes and inland sandpits. Associated with *Boraginaceae*, especially viper's bugloss (*Echium vulgare*) and forget-me-nots (*Myosotis* spp.).
- Harpalus servus* (Duftschmid, 1812) Coleoptera Carabidae Nb  
7.5-8.5mm long brownish black phytophagous ground beetle living on fine sand, especially on coastal dunes, with sparse vegetation. Burrows in sand during the daytime. Mainly southern, local.
- Harpalus smaragdinus* (Duftschmid, 1812) Coleoptera Carabidae Nb  
9-11.4mm long brownish black phytophagous ground beetle living under heather or leaf rosettes etc in sandy places. Southern species, north to midlands. Local, but abundant where found.
- Lepthyphantes insignis* O.P.-Cambridge, 1913 Araneae Linyphiidae Nb  
A small spider which has been found on heaths and dry grassland, and also in undergrowth and moles' nests in wetter habitats. Records are mainly from the southern counties of England. (Records on the Invertebrate Site Register from Durham, Cleveland, Cumbria, N. Yorks. and Forth Valley).
- Melitta tricineta* (Kirby) Hymenoptera Melittidae Nb  
A mining bee recorded from a variety of habitats, including dry chalk and limestone grassland, coastal landslips and soft rock cliffs. Nesting has not been observed but burrows are thought to occur in warm, sunny localities with bare ground or short turf. It has been seen visiting *Ononis* flowers, though possibly only for nectar. Very local, but can be numerous where it does occur. Recorded widely from W. Cornwall to W. Norfolk, with post-1970 records mostly from the southern English chalk downs and the coast of Sussex and Kent.
- Ocytus fortunatarum* Wollaston, 1871 Coleoptera Staphylinidae Nb  
Large bronze rove beetle, usually found on the ground in dry grassy places.

*Orthocerus clavicornis* (L., 1758) Coleoptera Colydiidae Nb  
Small black beetle with conspicuously bushy antennae. On bare sand and at grass roots. Widely distributed but very local on sand-dunes around the British coast. Extremely uncommon inland.

*Phyllotreta cruciferae* (Goeze, 1777) Coleoptera Chrysomelidae Nb  
A widespread but uncommon flea beetle associated with crucifers, typically on disturbed ground.

*Trachyploeus spinimanus* Germar, 1824 Coleoptera Curculionidae Nb  
A ground-dwelling cryptic weevil of uncertain biology. Found at the roots of plants, and possibly associated with grasses.

### Local

*Alydus calcaratus* (Linnaeus) Hemiptera Alydidae Local  
Found on dry sandy heaths and dry grassland. Widely recorded in the past, with records extending to Yorkshire and Wales, but recently known largely from the south and east. Forms rather small localised colonies, and may be associated with ants.

*Amara eurynota* (Panzer, 1796) Coleoptera Carabidae Local  
9.5-12.5mm long bronze ground beetle of open soil, often cultivated land. Phytophagous. Widespread but local.

*Andrena dorsata* (Kirby) Hymenoptera Andrenidae Local  
Solitary bee found both at the coast and inland where its burrows are not aggregated and are difficult to find. Double brooded and visits a wide range of flowers. Widespread in southern England north to Lincs., but so far only recorded from Glamorgan in Wales.

*Anoplius infuscatus* (Vander Linden) Hymenoptera Pompilidae Local  
A spider-hunting wasp, 6-10mm long. Found in moist sandy places, most frequently in coastal sand dunes. The female stores mostly wolf spiders Lycosidae, but also Agelenidae and Thomisidae, in a short burrow in sand, the prey being hung on low vegetation whilst the burrow is dug. A fairly common species on the coast in the south from Kent to Anglesey, but much less frequent further north or inland.

*Anoplius nigerrimus* (Scopoli) Hymenoptera Pompilidae Local  
A spider-hunting wasp, 5-8mm in length, found in a fairly wide range of habitats and nesting in a variety of situations including under stones, in dry plant stems, in deserted burrows of other aculeates and in snail shells. Reported prey include Lycosidae, Gnaphosidae and Pisauridae. Widespread and fairly common.

*Anoplius viaticus* (Linnaeus, 1758) Hymenoptera Pompilidae Local  
One of our largest spider hunting wasps (8.5-14mm) and found quite widely on sandy soils. Overwinters as adult female in a very deep burrow in sand and active very early in the year, but with a long season with adults through to September. Prey includes Lycosids, Gnaphosids and sometimes Thomsids, Salticids and Agelenids. Prey is hidden amongst vegetation whilst a short burrow is excavated in open sand. Wales and England north to Yorks. Locally common.

*Aphthona euphorbiae* (Schrank, 1781) Coleoptera Chrysomelidae Local  
Flea beetle usually described as feeding on *Euphorbia* sp. but also found in absence of the plant. Known to feed on Linaceae and Chenopodiaceae in Europe. Local in S England. Rare in N. Occasional population increases.

*Aricia agestis* Lepidoptera Lycaenidae Local  
A butterfly of open grassland. The larva feeds on *Helianthemum* on chalky soils or *Erodium* on sandy soils. Southern and usually bivoltine.

- Astata boops* (Schrank) Hymenoptera Sphecidae Local  
Largish (9-13mm) solitary wasp which builds an underground nest with multiple cells stocked with the nymphs of Pentatomid bugs. Adults frequently seen on umbels. Southern England and Wales north to Pembroke and Norfolk.
- Astata pinguis* (Dahlbom) Hymenoptera Sphecidae Local  
Hole nesting wasp preying on shield bug and ground bug nymphs. Sandy areas throughout UK. Never common.
- Bledius atricapillus* (Germar, 1825) Coleoptera Staphylinidae Local  
Rove beetle burrowing into firm soil by water. Predominantly S E species.
- Byrrhus pustulatus* (Forster, 1771) Coleoptera Byrrhidae Local  
5mm long brownish black pill beetle feeding on moss. Well camouflaged as a rabbit dropping.
- Candidula intersecta* (Poiret, 1801) Mollusca Helicidae Local  
Variably patterned white or brownish snail, up to 13mm diameter. Found in dry grassland and sand dunes. Common in much of England but scarce in Scotland.
- Centrotus cornutus* (Linnaeus) Hemiptera Membracidae Local  
A dark brown treehopper, up to 1 cm long, with thorny outgrowths on the thorax. It is found particularly in woods, and is frequently associated with young oaks, but has also been recorded from other habitats, including dune slacks, and clearly has other host plants. A strong association with aspen has been suggested in Scandinavia. Widely distributed throughout Britain, but local.
- Ceutorhynchus marginatus* (Paykull, 1792) Coleoptera Curculionidae Local  
<No species account available>
- Charagochilus gyllenhali* (Fallen) Hemiptera Miridae Local  
Widely distributed but local in Britain, often in fairly dry situations, feeding on bedstraws (*Galium* spp.). May be found on neutral, acid and calcareous grassland, and in woodland clearings.
- Cheiracanthium virescens* (Sundevall, 1833) Araneae Clubionidae Local  
A brown spider up to 8mm in length found under stones or on heather in dry sandy places  
Widespread but nowhere common, and very rare in the north.
- Chrysotoxum bicinctum* (L) Diptera Syrphidae Local  
A small, dark hoverfly with strongly clouded wings and two yellow abdominal bands. Found in sheltered, grassy places around scrub and woodland edge. More frequent in the south with a patchy distribution extending northwards to the Scottish Highlands. The larvae may be predatory on root aphids or occur in ant nests.
- Clubiona diversa* O.P.-Cambridge, 1862 Araneae Clubionidae Local  
A small spider, to 4mm. A local species, most frequent in the south; found amongst grasses and mosses in wet places.
- Colletes similis* Schenck Hymenoptera Colletidae Local  
A mining bee perhaps most frequently found on calcareous grassland but also on heaths and in sandpits. Flowers visited include mayweeds (*Matricaria* sp.), wild carrot (*Daucus*) and yarrow (*Achillea*). Locally common.
- Coremacera marginata* (F.) Diptera Sciomyzidae Local  
A snail-killing fly noticeable through having wings darkened by a reticulate pattern. It occurs in dry habitats, especially on calcareous soils. Larvae are parasitoids of various snails, eg *Cochlicopa* and *Discus* spp. Each larva requires two or three snails to complete development.

- Crossocerus nigritus* (Lepeletier & Brulle) Hymenoptera Sphecidae Local  
Small black solitary wasp nesting in broken stems of shrubs and reedmace. England and Wales N to Cheshire/S.Yorks, everywhere local.
- Crossocerus ovalis* Lepeletier & Brulle Hymenoptera Sphecidae Local  
Small black solitary wasp nesting in sandy ground, preying mainly on Empidid flies. Widespread throughout Britain but nowhere common.
- Curimopsis maritima* (Marshall, 1802) Coleoptera Byrrhidae Local  
2-3mm long brownish pill beetle living in sandy places on the coast and, less frequently, in sandy places inland, usually found among grass roots or among plant litter on the sand. Local, north to Lancashire coast.
- Enoplognatha latimana* H. & Oksala, 1982 Araneae Theridiidae Local  
This spider was described new to science in 1982, whereupon previously unidentifiable specimens collected from Dorset heaths were found to be this species. Its range and habitat are not yet known, but several museum collections have been checked without finding further specimens, so there is an indication that it is quite uncommon.
- Epeolus cruciger* (Panzer) Hymenoptera Anthophoridae Local  
<No species account available>
- Epitriptus cingulatus* (Fabricius) Diptera Asilidae Local  
Widespread but local robberfly. Rare in the north.
- Evagetes crassicornis* (Shuckard, 1837) Hymenoptera Pompilidae Local  
A spider-hunting wasp which is a brood parasite in the nest of other species in the same family. It is most often encountered in dry, sandy habitats where potential host species are plentiful. Suggested hosts are *Arachnospila anceps* and possibly *Anoplius nigerrimus*, although these have not been confirmed. Widespread but rarely numerous throughout Britain.
- Gargara genistae* (Fabricius) Hemiptera Membracidae Local  
A dark brown treehopper, 4.4 - 5.5mm. long, generally found on broom, but also recorded occasionally on *Genista* and *Onobrychis*. It is largely confined to south-eastern England, as far north as S. Cambridgeshire. Very local, though common in some areas within its range.
- Halticus luteicollis* Panzer Hemiptera Miridae Local  
Confined to southern England and Wales. Feeds on bedstraws (*Galium* spp.), often at woodland clearings and margins.
- Harpalus anxius* (Duftschmid, 1812) Coleoptera Carabidae Local  
6.8-8.2mm long black phytophagous ground beetle of sandy heaths and dunes. England and Wales north to Cumbria. Frequent in southern England, rare in the north.
- Harpalus rubripes* (Duftschmid, 1812) Coleoptera Carabidae Local  
8.5-12.2mm long black phytophagous ground beetle found on dry or gravelly ground with sparse vegetation. Widespread but local, particularly so in the north.
- Harpalus tardus* (Panzer, 1796) Coleoptera Carabidae Local  
8.4-11mm long black, phytophagous ground beetle found on dry, sandy or gravelly ground. Generally common in southern Britain, but much more local north of Yorks/Lancs.
- Helophorus rufipes* (Bosc d'Antic, 1791) Coleoptera Hydrophilidae Local  
<No species account available>



- Hipparchia semele Linnaeus Lepidoptera Satyridae Local  
Unimproved grassland on many soil types. Larva on several grasses including *Agrostis setacea*, *Festuca ovina* and *Ammophila arenaria*. Widespread on heathland and downland in southern England, largely confined to the coast in the north and in Scotland.
- Kelisia sabulicola Wagner Hemiptera Delphacidae Local  
A planthopper, 3.5-4.3mm. long with longitudinal pale and dark bands, associated with *Carex arenaria* in coastal dunes and the east anglian brecks. Widely distributed around the British coast, but local.
- Kissister minimus (Aube, 1850) Coleoptera Histeridae Local  
A small black scavenger beetle, usually found in sandy grassland.
- Leiodes dubia (Kugelann, 1794) Coleoptera Leiodidae Local  
4mm long chestnut brown beetle living in sand dunes. Possibly associated with fungi. Widespread in dunes around the country.
- Lepthyphantes pallidus (O.P.-Cambridge, 1871) Araneae Linyphiidae Local  
A small spider found amongst grass and heather on moorland, under stones on high ground and in marshes. Widespread but infrequent.
- Megachile centuncularis (Linnaeus) Hymenoptera Megachilidae Local  
A leaf-cutter bee. It has apparently declined greatly in the last hundred years and is now local and uncommon.
- Megachile maritima (Kirby) Hymenoptera Megachilidae Local  
Solitary bee. Sandy places, mainly on dunes but occasionally inland heaths. Local, N to Durham.
- Melitta haemorrhoidalis (Fabricius) Hymenoptera Melittidae Local  
<No species account available>
- Myrmosa atra Panzer Hymenoptera Tiphiidae Local  
Solitary wasp showing extreme sexual dimorphism. Large, black, winged male up to 11mm long, and small red wingless female 4-7mm long resembling large red ant. Found in sandy places where it is parasitic in nests of other solitary wasps and bees. Locally common in southern England, more local in the north and absent from Scotland.
- Nephrotoma scurra (Meigen) Diptera Tipulidae Local  
A fairly large crane fly which is usually found about scrub edges on heathland and is particularly fond of sandy terrain. There are a few upland records, usually from well-drained areas, and the larva feeds on grass roots. The adult is yellow with black markings and the flight period is from June to September.
- Notiophilus aquaticus (L., 1758) Coleoptera Carabidae Local  
Small (4.5-6mm) bronze ground beetle. Diurnal, occurring on most types of open country, usually in fairly dry, short vegetation, also at high altitude. Widespread but local throughout GB.
- Notiophilus germinyi Fauvel, 1863 Coleoptera Carabidae Local  
Small (4.5-5.5mm) bronze ground beetle of open ground, often on moorland at high altitude. Widespread, possibly more common in the north.
- Olibrus affinis (Sturm, 1807) Coleoptera Phalacridae Local  
A small brown beetle living on flowers of the Compositae, particularly *Tragopogon* and *Hypochaeris*, larvae developing on unripe achenes and adults feeding on pollen. Southern and south-western species, mainly although not entirely coastal.

- Paralister purpurascens* (Herbst, 1792) Coleoptera Histeridae Local  
A beetle, 4mm in length, which feeds on mites, springtails, etc in rotting vegetation such as compost heaps.
- Pardosa agricola* (Thorell, 1856) Araneae Lycosidae Local  
A wolf spider. The typical form is northern, being found on sandy and gravelly banks of fast flowing streams. Form *arenicola* (regarded by some as a separate species) is southern and coastal, being found on sand and shingle beaches. An intermediate form (var. *maritima*) has been found where fast flowing rivers enter estuaries. Locally abundant in the north, rare in the south, especially inland.
- Peritrechus lundii* (Gmelin) Hemiptera Lygaeidae Local  
Widely distributed but local groundbug, particularly in the north and west. Dry, open habitats with bare ground - dunes, heaths and quarries. Ready coloniser, frequently found in ruderal habitats.
- Philonthus addendus* Sharp, 1867 Coleoptera Staphylinidae Local  
12mm long shining bronze green rove beetle found in fungi, carrion and decaying vegetation.
- Philonthus tenuicornis* Mulsant 1853 Coleoptera Staphylinidae Local  
<No species account available>
- Phyllotreta atra* (F., 1775) Coleoptera Chrysomelidae Local  
A small black flea-beetle feeding on various crucifers. Widespread but local.
- Phytodecta olivacea* (Forster, 1771) Coleoptera Chrysomelidae Local  
4-5mm long leaf beetle feeding on *Sarothamnus* and *Genista*. Two colour forms, olive brown and bright red. Locally common on broom in much of southern England. Very local in the north.
- Pirapion immune* (Kirby, 1808) Coleoptera Apionidae Local  
A weevil. Probably feeds exclusively on broom, *Sarothamnus scoparius*, in Britain and is therefore mainly found on heaths and sandy areas. *Genista* spp. are also possible host plants. Larvae occur in galls on the young stems. Rather local but widely distributed as far north as Elgin. Few records from Wales and midland England.
- Platydracus stercorarius* (Olivier, 1795) Coleoptera Staphylinidae Local  
A black rove beetle with red elytra, up to 14mm. long, generally found in open dry places under stones etc., also in carrion. Widely distributed but rather local.
- Priocnemis pusilla* Schiodte, 1837 Hymenoptera Pompilidae Local  
A spider-hunting wasp, usually found on lighter soils. Prey records have included Clubionid and Salticid spiders and, in France, there is a record of a nest in an 'abandoned [aculeate?] burrow'. This species is the most frequently encountered of a group of species which are very hard to distinguish. It has been found widely from southern England north to Cumbria.
- Prosternon tessellatum* (L., 1758) Coleoptera Elateridae Local  
A black click beetle with a pattern of pale yellow pubescence, 9 to 11mm. long. Found amongst low vegetation, particularly on dry ground, heathland, dunes and calcareous grassland. Larvae are wireworms at roots of grass. Widely distributed but local.
- Rhinoncus castor* (F., 1792) Coleoptera Curculionidae Local  
2.5mm long white spotted brown weevil feeding in stems of *Rumex* species. Widespread but fairly local.

- Rhopalus parumpunctatus Schilling Hemiptera Rhopalidae Local  
Largely confined to the south and east of England and Wales, this is a species of dry sandy habitats, particularly heaths, dunes, and the east anglian breckland. Within its range and habitats, it can be quite common.
- Silpha laevigata F., 1775 Coleoptera Silphidae Local  
A black beetle, up to 15mm in length, which is carnivorous, probably feeding on either carrion or snails or both. Usually found in grassy places, including woodland rides and dunes.
- Sitona humeralis Stephens, 1831 Coleoptera Curculionidae Local  
<No species account available>
- Sitona puncticollis Stephens, 1831 Coleoptera Curculionidae Local  
Small brown weevil feeding on rest harrow usually in sandy grassland.
- Stenobothrus lineatus (Panzer, 1796) Orthoptera Acrididae Local  
A medium-sized grasshopper, variable in colour, but usually predominantly green, with a distinctive 'wheezing' song. It has a preference for dry localities, particularly south-facing calcareous grasslands but also on sandy soils in the Brecks and with a few heathland colonies. It is of pronouncedly south-eastern distribution, and is not found north of the Wash-Severn line.
- Strangalia melanura (L., 1758) Coleoptera Cerambycidae Local  
Small red/brown longhorn beetle, usually seen on umbellifer flowers. Larvae in dead wood. Southern species, rare in the north.
- Syromastus rhombeus (Linnaeus) Hemiptera Coreidae Local  
A ground-dwelling bug confined to southern England and Wales, and commoner in the south. Found in dry, often sandy, places, including established dunes, heath margins, disused sandpits and quarries and ruderal habitats.
- Thymelicus lineola Ochsenheimer Lepidoptera Hesperidae Local  
Frequents unimproved grassland, hedgerows, verges, etc., the larva feeding on Dactylis glomerata, and Holcus mollis, less often found on Brachypodium sylvaticum and B.pinnatum. Mainly south-east England and East Anglia, though noted in southern and south-west England and possibly overlooked elsewhere.
- Tiphia femorata Fabricius Hymenoptera Tiphidae Local  
Primitive black solitary wasp, the males (5-11mm) usually much smaller than the females (7-14mm). Nests in sandy ground, stocking nest with larvae of scarabaeid beetles (chafers and dung beetles). Locally common in southern Britain, northwards to Yorkshire where it is very rare.
- Trixagus dermestoides (L., 1767) Coleoptera Throscidae Local  
Small beetle similar to click beetle. Larvae in dead wood. Local but not uncommon.
- Tytthaspis sedecimpunctata (L., 1758) Coleoptera Coccinellidae Local  
Small yellow and black ladybird. Local in marshy places, but can occur in other habitats.
- Zelotes electus (C.L.Koch, 1839) Araneae Gnaphosidae Local  
Spider living in silk cells under stones or among lichens in short grass in sandy areas, particularly dunes. Widespread but always uncommon.

### Common

- Acomporis pygmaeus (Fallen) Hemiptera Cimicidae Common  
Widespread and common, feeding on Scots pine and other conifers.

- Adelphocoris lineolatus* (Goeze) Hemiptera Miridae Common  
Common in the south of England, becoming rarer and more local in the north. Nymphs feed on a range of leguminous plants in a wide range of habitats.
- Agallia venosa* (Fallen) Hemiptera Cicadellidae Common  
A pale brown leafhopper with blackish markings, 2.7 - 3.4mm. long, found, generally on the ground, amongst grass in dry places. Widely distributed and generally common throughout Britain.
- Alebra albostriella* (Fallen) Hemiptera Cicadellidae Common  
A small leafhopper, about 4mm. long, variably coloured in yellowish, orange-red and brown, feeding on oak. Widely distributed and generally common throughout Britain.
- Aleochara bipustulata* (L., 1761) Coleoptera Staphylinidae Common  
4-6mm long black and red rove beetle, usually found in dung or carrion but also often in leaf litter, moss etc. Generally common.
- Alopecosa pulverulenta* (Clerck, 1757) Araneae Lycosidae Common  
A common and widespread spider found on open ground, heaths and pastures and even urban gardens. It is 5-10 mm long, generally brown and mottled though specimens from high altitudes (above 2,000 feet) are often larger and darker than usual. The adult is found from April onwards.
- Andrena bicolor* Fabricius Hymenoptera Andrenidae Common  
A solitary bee which is common in lowland areas in all sorts of open woodland and grassland situations. Burrows are not aggregated and are difficult to find. It is double brooded. A wide range of flowers are visited. Common throughout England, Wales and southwest Scotland.
- Anotylus tetracarınatus* (Block, 1799) Coleoptera Staphylinidae Common  
2mm long dull black rove beetle living in litter, moss, dung, carrion, tussocks etc. Flies readily and swarms on sunny days - often becoming a nuisance by getting into people's eyes ! Extremely common, possibly Britain's commonest beetle.
- Anthidium manicatum* (Linnaeus) Hymenoptera Megachilidae Common  
A medium sized, black and yellow solitary bee which nests in existing holes in timber or masonry. The nest is lined with plant hairs (eg. thistle down) which are combed from the plant using special rows of hairs on the legs and is carried back to the nest in a ball held under the body. Southern half of Britain.
- Anthocoris nemorum* (Linnaeus) Hemiptera Cimicidae Common  
Very common and widely distributed predatory bug in Britain. It is generally found on low vegetation, though it has no particular habitat associations. The adults hibernate under bark and amongst leaf litter, moving to a variety of plants, including willows, in March or April. It is a predator which feeds on aphids, psyllids and other small invertebrates and occasionally on leaves. The white eggs are laid in leaves and hatch in late May or early June. There is one generation a year in northern Britain and two in the south, with adults found from June to September, according to area. Pairing occurs in autumn and most males die before the onset of winter, so it is mostly fertilized females which overwinter.
- Anthrenus verbasci* (L., 1767) Coleoptera Dermestidae Common  
2-3mm long variegated black white and yellow oval beetle. Larvae feed on the dry remains of insects and are a notorious pest in museum collections. Adults often on flowers. Widespread and common.
- Aphrodes albifrons* (Linnaeus) Hemiptera Cicadellidae Common  
A leafhopper, 3.3 - 5mm. long, the male light brown with variably developed pale and dark bands and spots, the female mottled brownish. Associated with grasses, generally found at or near ground level. Widely distributed and generally common throughout Britain.

- Aphrodes makarovi* Zakhvatkin Hemiptera Cicadellidae Common  
A brown leafhopper, 5 - 8mm. long. Forms differing in size and colour are associated with different habitats. Widely distributed and very common throughout Britain in a wide range of habitats.
- Armadillidium vulgare* (Latreille, 1804) Isopoda Armadillidiidae Common  
The commonest of the pill woodlice in Britain, though in the north and west its sites are predominantly coastal or synanthropic. Fairly resistant to desiccation, thus often to be seen during the day. Very variable in colour.
- Autographa gamma* (Linnaeus, 1758) Lepidoptera Noctuidae Common  
Mainly a migrant moth, most abundant in southern and eastern England but, reaching all the British Isles where it breeds to produce an autumn generation. Adults can be found from late January, when large swarms have been known from North Africa, but May is more typical. They sometimes return south for the winter but, although overwintering moths have also been recorded, the early stages cannot survive the cold and so die with the first frosts. The moths mostly feed during the day and at dusk. The caterpillars feed on low growing plants and can sometimes be a pest on cultivated crops and garden plants, especially kale and peas. Pupation takes place in loose cocoons among leaves.
- Bembidion properans* Stephens, 1828 Coleoptera Carabidae Common  
3.5-4mm long bronze ground beetle. Common, living in tussocks, leaf litter, under stones etc, also on open ground. Most habitats. Easily confused with the abundant *B. lampros* and possibly under-recorded, although almost certainly less common than that species.
- Bombus hortorum* (Linnaeus) Hymenoptera Apidae Common  
A large black, white and yellow bumble bee, abundant in most parts of Britain and commonly found in gardens. Usually nests on or just under the ground.
- Bombus terrestris* (Linnaeus) Hymenoptera Apidae Common  
One of our commonest larger bumblebees and widespread and common north to the central lowlands of Scotland. It is black and golden in colour with a white or buff tail and nests below ground. Only the young fertilized queen survives the winter, having hibernated in a protected place such as in a hole or under moss. She emerges in spring and starts up her own colony or may attempt to usurp the queen of an existing colony and take it over. Such attempts end in the death of one or both queens. She makes pots of wax and pollen into which the first eggs are laid and when these hatch provides them with honey whilst making storage cells for honey and more cells for further eggs. After about three weeks the first infertile females (workers) emerge and take over the nectar and pollen gathering and cell building, while the queen concentrates on egg laying. The larva is reared on pollen and nectar, which are carried on large pollen sacs on the back legs and in the stomach respectively. Early spring workers are often much smaller than those of later broods when there are more copious levels of food available. The male, which is recognisable by his longer antennae, appear in summer and towards the end of summer male and female bumblebees fly out and mate. The male is not allowed to re-enter the nest after mating and soon dies. The fertilized queen starts searching for a safe place to hibernate and the workers and old queen die with the first frosts or spell of cold weather.
- Bradycellus verbasci* (Duftschmid, 1812) Coleoptera Carabidae Common  
4.5-5mm long reddish ground beetle. Phytophagous, found mainly on sandy and gravelly soils, but often climbing vegetation, particularly onto umbelliferous flowers and often therefore caught by sweeping. Flies readily and regularly comes to light at night. Common and widespread.
- Byrrhus fasciatus* (Forster, 1771) Coleoptera Byrrhidae Common  
Large (8mm) pill beetle strongly resembling rabbit dropping. Feeds on moss, generally common species, most abundant on heaths and moorland.

- Calathus erratus* (Sahlberg, 1827) Coleoptera Carabidae Common  
8-12mm long black ground beetle of dry, sandy ground with sparse vegetation. Fairly common throughout GB.
- Calathus melanocephalus* sens. str. (L., 1758) Coleoptera Carabidae Common  
A 6-9mm long ground beetle with two colour forms - black with a bright red pronotum, or all black. In 1989 it was recognised that *C. melanocephalus* incorporated two species in Britain, the true *C. melanocephalus* and *C. cinctus* (=erythroderus). Both appear to be widespread. The true *C. melanocephalus* occurs in fairly dry conditions throughout the country. Records earlier than 1989 need to be referred to *C. melanocephalus* sensu lat. unless they have been re-determined.
- Campyloneura virgula* (Herrich-Schaeffer) Hemiptera Miridae Common  
Widely distributed and common throughout Britain. Predacious. Found on a wide range of broadleaved trees and bushes in woods, hedgerows, gardens and scrub.
- Cepaea nemoralis* (L., 1758) Mollusca Helicidae Common  
A large banded snail, generally yellow in colour, with varying numbers of darker bands on the shell which make it favoured for studies of genetics. Very common in most lowland habitats including woodland, grassland and gardens. It forms well-marked colonies and is fond of areas with dead grasses, thistles and umbellifers. It is very variable in appearance and brown, pink and nearly red forms have also been recorded, the latter occurring more commonly in dense woodlands. It breeds in spring and summer and the eggs hatch in 2-3 weeks, reaching adulthood the following year.
- Ceutorhynchus contractus* (Marsha, 1802) Coleoptera Curculionidae Common  
A metallic blue or black weevil, 1.4 - 1.8mm. long, feeding on crucifers. Widely distributed and common.
- Chaetocnema hortensis* (Fourcroy) Coleoptera Chrysomelidae Common  
A small black flea beetle with a bronze reflection, 1.5-2.3mm long. Larvae and adults are polyphagous on grasses. Widely distributed and common.
- Chrysopa carnea* Stephens Neuroptera Chrysopidae Common  
A green lacewing. It is found in a wide range of habitats, and is a common species in gardens. The larvae are active predators, and are usually found on the foliage of shrubs and trees. It is found throughout Britain as a resident, and may also occur as a migrant. It is generally common, but particularly abundant in the south.
- Crepidodera ferruginea* (Scopoli, 1763) Coleoptera Chrysomelidae Common  
3-4mm long reddish flea beetle feeding on foliage of thistles. Very common.
- Crossocerus podagricus* (Vanderlinden) Hymenoptera Sphecidae Common  
A solitary wasp. Nests in small holes in dead wood, fence posts, etc. Nest is usually provisioned with small Diptera. Common.
- Crossocerus quadrimaculatus* (F) Hymenoptera Sphecidae Common  
A black and yellow sand wasp which nests in earth banks, especially amongst the roots of uprooted trees. The nest is stocked mainly with small flies, but small Lepidoptera and Trichoptera have also been recorded. Common in the southern half of Britain north to Cheshire and Mid-Yorkshire.
- Deraeocoris ruber* (Linnaeus) Hemiptera Miridae Common  
A southern species of bug, becoming local in the north midlands and absent north of Yorkshire, but generally common in the southern part of its range. Predacious, found on herbage and bushes in a wide range of habitats, including woodland rides, gardens and hedgerows.

- Dicranotropis hamata (Boheman) Hemiptera Delphacidae Common  
A planthopper patterned in black, whitish and pale brown, 2.7-5mm. long, found on grasses in a wide range of situations. Widely distributed and generally common throughout Britain.
- Dikraneura variata Hardy Hemiptera Cicadellidae Common  
A greenish or reddish-brown leafhopper, 2.8-3.4mm. long, feeding on grasses, particularly in acid grassland and heathland. Widely distributed and generally fairly common.
- Diplocolenus abdominalis (Fabricius) Hemiptera Cicadellidae Common  
A green leafhopper, 3.6 - 4.5mm. long, found on grasses, usually amongst fairly tall vegetation. Widely distributed and fairly common throughout Britain.
- Drusilla canaliculata (F., 1787) Coleoptera Staphylinidae Common  
4-5mm long brown rove beetle. Under stones, in litter and moss, most often in grassland. Very common.
- Ectemnius cephalotes (Olivier) Hymenoptera Sphecidae Common  
A solitary wasp. Preys on Diptera (especially muscoids and syrphids) and nests in burrows in soft, rotten wood. Several females seem sometimes to share a common entrance to their separate nests. Kent to Cornwall, north to Cheshire and Yorks, Glamorgan. Common.
- Enallagma cyathigerum (Charpentier, 1840) Odonata Coenagriidae Common  
A blue damselfly which breeds in all types of still and slow flowing water where there is abundant marginal vegetation, although not usually very small water bodies. Widespread and common north to Orkneys and Shetland and occurring at higher altitudes than other damselflies. On Scottish Lochs it is often the only damselfly present. It readily colonises new ponds and is often one of the first species to appear. It is a holarctic species occurring east to Mongolia and west to N. America. It is found throughout Europe, although it becomes more local in the Mediterranean region.
- Enicmus transversus (Olivier, 1790) Coleoptera Lathridiidae Common  
2.5mm long brown beetle occurring in moss, litter etc. Very common.
- Episyrphus balteatus (Degeer) Diptera Syrphidae Common  
An orange and black banded hoverfly, generally distributed and very common. In most years, numbers are greatly boosted by immigration from the continent. Larvae are The larvae are predatory on aphids.
- Eriothrix rufomaculata (DeGeer, 1776) Diptera Tachinidae Common  
Parasitic fly on Lepidoptera larvae in the families Arctiidae and Noctuidae. Adults are flower visitors. Generally distributed and very common.
- Eristalis tenax (Linnaeus) Diptera Syrphidae Common  
A large brown and orange hoverfly. Larvae are of the rat-tailed maggot type, and develop in foul water, rotting vegetation, etc. Widely distributed and generally common.
- Eupteryx melissae Curtis Hemiptera Cicadellidae Common  
A pale yellowish leafhopper with many small dark markings, 2.9-3.4mm. long, polyphagous on low-growing plants but associated chiefly with Labiates. Widely distributed and generally common throughout Britain.
- Eupteryx urticae (Fabricius) Hemiptera Cicadellidae Common  
A pale yellowish leafhopper with extensive dark markings, 3.3-3.8mm. long, usually feeding on nettle but also reared from Parietaria. Widely distributed and generally common throughout Britain.

- Eurhadina pulchella (Fallen) Hemiptera Cicadellidae Common  
A yellowish or brownish leafhopper with dark wing markings on the wings, 3.7-4.4mm. long, normally associated with oak but occasionally found on other trees. Widely distributed and generally common throughout Britain.
- Exapion ulicis (Forster, 1771) Coleoptera Apionidae Common  
The gorse weevil. 3mm long ash grey weevil. The larvae develop inside the seed pods of gorse. Common wherever there is gorse.
- Gymnetron antirrhini (Paykull, 1800) Coleoptera Curculionidae Common  
Small black weevil living in flowers of toadflax. Common.
- Halictus tumulorum (Linnaeus) Hymenoptera Halictidae Common  
A small bee nesting in the ground. Found in a range of habitats and can use a variety of flowers for food. Widespread and common.
- Harpalus rufipes (Degeer, 1774) Coleoptera Carabidae Common  
10-17mm long black ground beetle with red legs and yellowish pubescence. Common in grassland, gardens, arable land, waste ground etc. Phytophagous, sometimes a pest of strawberries.
- Hyledelphax elegantulus (Boheman) Hemiptera Delphacidae Common  
A pale brownish and black planthopper, 2.1-3.6mm. long, found on grasses in open fairly dry situations; probably particularly associated with Deschampsia flexuosa. Widely distributed and more or less common throughout Britain.
- Hypera arator (L., 1758) Coleoptera Curculionidae Common  
4mm long brown weevil living on species of Leguminosae. Bright green larvae are similar to caterpillars and feed externally on the flowers. Locally common in grassy and ruderal places.
- lassus lanio (Linnaeus) Hemiptera Cicadellidae Common  
A heavily built green or brown leafhopper, 7 - 8mm. long, found usually on oak but occasionally recorded from other trees. Widely distributed and generally common, particularly in woods, throughout Britain.
- Inachis io Linnaeus Lepidoptera Nymphalidae Common  
A resident butterfly and probably also a partial migrant within Britain except for the far north, being a non-breeding visitor in parts of Scotland. However, it is very common and widespread in central and southern England and is found early in the year, sometimes in February, having overwintered from the previous autumn in outbuildings and hollow trees, but it does not reach sexual maturity until late April. The single generation emerges in late July and is a common sight in gardens, particularly on buddleja flowers. It feeds until late autumn, when suitable overwintering sites are found. The eggs are laid in untidy batches underneath leaves of stinging nettle and the caterpillar is at first communal and lives in a silken web on the foodplant, forming new webs as required and using their protection for roosting and moulting. When almost fully grown it feeds in small groups outside the web and roosts under a leaf, before suspending from nearby vegetation to pupate.
- Javesella pellucida (Fabricius) Hemiptera Delphacidae Common  
A blackish planthopper with pale brown wings, 2.4-4.6mm. long, found on grasses in a wide range of situations. Widely distributed and generally common throughout Britain.
- Lasioglossum parvulum (Schenck) Hymenoptera Halictidae Common  
<No species account available>
- Lasiommata megera Linnaeus Lepidoptera Satyridae Common  
Common in grassy places throughout most of southern Britain, becoming local in northern England



and Scotland. Larvae on various grasses.

- Limnia unguicornis* (Scopoli)                      Diptera    Sciomyzidae        Common  
A medium-sized snail-killing fly, with wings reticulately patterned. Larvae feed on aquatic snails. Widely distributed and generally common on Britain.
- Liocoris tripustulatus* (Fabricius)              Hemiptera    Miridae              Common  
A common plant bug which feeds on stinging nettle, *Urtica dioica*, throughout Britain in any habitat where its host will grow. It is also occasionally (and increasingly?) found on a number of other plants. The adult overwinters but the male does not live as long after hibernation, usually perishing by the time the female is egg-laying. The larva is green with red-brown markings and matures by the end of August. As much as half the population may be parasitized by a euphorine braconid. All stages are plant feeders and attack buds, stems and, especially, flowers and fruits of nettle. The adult is light yellow-brown at first but after hibernation it becomes a deep chocolate colour and the previously yellow spots turn orange.
- Lonchoptera furcata* (Fal.)                      Diptera    Lonchopteridae    Common  
A small yellowish fly which is extremely common in grassland throughout Britain, but it is usually parthenogenic and the male is rarely found, though it has been collected by sweeping marshy ground in the evening, suggesting that it may be crepuscular. The eggs are white and oval with a smooth shell. The larva lives under dead leaves and in decaying vegetable matter and is oval, flattened and has a poorly developed head and protruding appendages. The pupa is formed from the last larval skin with the pupa lying within and thus resembles the larva, but has small brown protruding anterior spiracles. The adult fly emerges through a T-shaped split in the anterior half of the puparium.
- Longitarsus flavicornis* (Stephens, 1831)      Coleoptera    Chrysomelidae    Common  
2.5-3mm long pale brownish yellow flea beetle living on the foliage of ragwort *Senecio jacobaeae*. Very common in southern England, replaced by *L. jacobaeae*, a very similar species, equally common north of the midlands.
- Longitarsus jacobaeae* (W, 1858)              Coleoptera    Chrysomelidae    Common  
2-3mm long yellow flea beetle feeding on common ragwort *Senecio jacobaeae*. Very common in northern England, mainly replaced by *L. flavicornis* in the south.
- Longitarsus pratensis* (Panzer, 1794)        Coleoptera    Chrysomelidae    Common  
Small yellow flea beetle feeding on ragwort. Widespread and common.
- Lycaena phlaeas* Linnaeus                      Lepidoptera    Lycaenidae        Common  
A common butterfly throughout Britain wherever its foodplant grows but it favours areas with light soils. The adult butterfly can be active in temperatures as low as 10°C and the male selects a basking spot for his territory, often on a stony path or bare soil, which he fiercely guards, seeing off other males who invade his 'patch' and pursuing any passing females. Ragwort is the favoured nectar-source, particularly in the autumn brood, and roosting takes place on dead seed heads of grasses. The eggs are laid very selectively on fresh growth of sorrels and sometimes docks and hatch after about one or one and a half weeks. The slug-like caterpillar feeds by day and rests at the base of the foodplant. At first it only eats the cuticle, in grooves from beneath the leaves, but later the whole leaf is eaten. There are two broods a year, flying between May and July and from August to October, and in the second generation the caterpillar overwinters close to the base of the foodplant. It pupates on the foodplant, attached by strands of silk. This butterfly can suffer from its foodplants becoming over-run with grasses and needs plenty of bare and exposed areas to form suitable, discrete colonies.
- Machimus atricapillus* (Fallen)                Diptera    Asilidae              Common  
Slender, grey-brown assassin fly which is usually found in dry grassy places, especially on chalk and limestone, in hilly country. Common in southern Britain, but scarce in the north and reaching

its northern limit around the Lake District/Yorks although there are a few more northerly records, including one in the Scottish borders in 1988.

- Maniola jurtina* L. Lepidoptera Satyridae Common  
A very common to abundant butterfly throughout Britain, inhabiting almost any habitat and utilising even minimal areas of grassland to breed. It survives best in grasslands with a good mosaic of different turf heights and where scattered, mixed scrub is in proximity. It is never abundant on short-cropped sites and rarely common in swards dominated by tall, dense, coarse grasses. In poorer habitats it has more eye-spot markings which distract predators, as longer flights are often necessary to locate suitable breeding areas. The adult flies in temperatures of 13oC and above and, unlike most butterflies, it will fly in dull and sometimes rainy weather, even in the evening. The eggs are laid on shorter turf, females seemingly preferring the junction of areas of long and short grass, and hatch after two to three and a half weeks. The caterpillar will feed on any species of grass through the summer and autumn before overwintering, but early instars prefer fine grasses before moving on to coarser ones. It roosts by day at the base of the plant, ascending at night to feed, and curls up and falls to the ground when disturbed. When fully grown in spring it spins a silken pad on a grass stem and pupates. The adult then has a staggered emergence period from mid June to late summer and is often seen until late September. Bramble, thistles, ragworts and knapweeds are the favoured nectar plants. Roosting takes place in long grasses and on tall flower heads. The adults are often found carrying red mites.
- Megalocoleus molliculus* (Fallen) Hemiptera Miridae Common  
A widely distributed and generally common plant bug throughout Britain. Usually on yarrow (*Achillea millefolium*), but sometimes on other composites.
- Melanostoma mellinum* (Linnaeus) Diptera Syrphidae Common  
Small black and yellow hoverfly found in grassy places. One of the commonest hoverflies throughout Britain. The larvae are predatory on aphids.
- Mellinus arvensis* (Linnaeus) Hymenoptera Sphecidae Common  
A large (11-14mm) black and yellow digger wasp which nests in dry light soil. The nests are quite deep and multiple cells are stocked mainly with flies. Widespread and common.
- Nabis ferus* (Linnaeus) Hemiptera Nabidae Common  
A common damselbug throughout Britain: in dry places, but otherwise not restricted by habitat. A ready colonist, which may be found in large numbers in ruderal communities and at the margins of arable fields. Predacious.
- Notostira elongata* (Geoffroy in Fourcroy) Hemiptera Miridae Common  
A common and widely distributed, though predominantly southern, grassbug which is found in a wide variety of grassy places on reasonably dry, neutral to calcareous soils. There are two generations a year and the adult females of the two generations differ both in size and colour so considerably that they were previously thought to be two species. A female of the summer generation is larger with longer antennae and wings than one of the autumn generation and is completely green. A female of the second generation is brown with a pinkish tint before hibernation but in the spring the abdomen becomes bright green. Only the adult female overwinters, having being fertilized the previous autumn, and lays batches of up to 15 yellowish-white eggs between stem and leaf blade from late April until June. These becoming paler and absorb water, swelling considerably, and the pale green larva is found in May and June.
- Nysius thymi* (Wolff) Hemiptera Lygaeidae Common  
A widely distributed groundbug, but only locally common. Found in dry places, often near the coast. Often associated with thyme (*Thymus drucei*), but not confined to it. Older records may refer to *N. ericae*, only recently recognised as distinct in Britain.
- Omocestus viridulus* (L., 1758) Orthoptera Acrididae Common

A medium-sized grasshopper, variably coloured but usually predominantly green. It is found in a wide range of grassland situations, and is generally common over the whole of Britain, though extremely local in some parts of the south-east.

- Ontholestes murinus* (L., 1758) Coleoptera Staphylinidae Common  
A quite large (10-15mm) rove beetle, black with a marbled pattern of golden pubescence. In dung and carrion. Widely distributed and fairly common.
- Orthops campestris* (Linnaeus) Hemiptera Miridae Common  
A common plant bug throughout Britain and feeds largely on the flowers and seed-heads of umbellifers. It may be a pest of dahlias, although in North America a form is often a pest of carrot and celery. It generally overwinters as an adult and eggs are laid in spring in the young leaves and buds of the host plant. The pale green larva reaches adulthood in late July to early August and both larva and adult feed mostly on the young leaves, flower buds and unripe fruits. The adult bug rests in the umbels, just below the flowers.
- Otiorhynchus ligneus* (Olivier, 1807) Coleoptera Curculionidae Common  
6mm long weevil feeding at plant roots, usually in sandy places. Widespread and common.
- Pachygnatha degeeri* Sundevall, 1830 Araneae Tetragnathidae Common  
A small, very common spider with a brown and white abdomen, found throughout Britain in low vegetation or running on the ground beneath it.
- Pardosa nigriceps* (Thorell, 1856) Araneae Lycosidae Common  
A wolf spider, common on heaths and other open spaces. Also utilises bushes such as gorse to a greater extent than other lycosids.
- Pardosa palustris* (Linnaeus, 1758) Araneae Lycosidae Common  
A wolf spider found in damp or heathery places. Very similar to *P. monticola* and difficult to separate, therefore their range and habitats have probably been confused.
- Pardosa pullata* (Clerck, 1757) Araneae Lycosidae Common  
A wolf spider found in wetlands, wasteland and gardens. Widespread and common.
- Pemphredon lugubris* (Fabricius) Hymenoptera Sphecidae Common  
A black wasp nesting in rotten wood. Preys on aphids. A widespread species.
- Philonthus concinnus* (Gravenhorst, 1802) Coleoptera Staphylinidae Common  
<No species account available>
- Phyllotreta undulata* Kutschera, 1860 Coleoptera Chrysomelidae Common  
Small black and yellow flea beetle feeding on leaves of various crucifers, including cultivated brassicas. Major pest of seedlings of these. Very common.
- Phytocoris varipes* Boheman Hemiptera Miridae Common  
A widely distributed and often very common plant bug in much of England and Wales, but with only a single Scottish record. It is generally to be found in fairly dry, grassy, open places, but is otherwise fairly indifferent to habitat. Polyphagous and partly predacious.
- Plagiognathus arbustorum* (Fabricius) Hemiptera Miridae Common  
A widespread and common plant bug which occurs throughout Britain in a wide range of habitats. It is polyphagous, and a predator but is particularly associated with stinging nettle, *Urtica dioica*. The eggs are laid in the autumn and hatch in the following May. The adult varies from light red-brown to almost black and first appears at the beginning of July but has usually died by the end of September. The larvae are attacked by a braconid parasite.

- Platycheirus clypeatus agg. (Meigen)      Diptera   Syrphidae      Common  
 Small black and yellow hoverfly. Damp grassland, marshes and bogs. The larvae are predatory on aphids. One of the commonest hoverflies in wet localities throughout Britain. However, this 'species' has recently been shown to consist of three species: clypeatus sens. str., europeus and occultus, so that pre-1990 records should be regarded with caution.
- Psammotettix cephalotes (Herrich-Schaeffer) Hemiptera   Cicadellidae      Common  
 A greenish leafhopper, 3.1-3.7mm. long, found on grasses, particularly on calcareous soils. Widely distributed and often common throughout Britain.
- Pseudapion rufirostre (F., 1775)      Coleoptera   Apionidae      Common  
 Small grey weevil feeding on mallows. Widespread and common.
- Psithyrus barbutellus (Kirby)      Hymenoptera   Apidae      Common  
 Cuckoo bee which is an inquiline in the nests of Bombus hortorum. Widespread and common, especially in the south of Britain, although recorded throughout.
- Psithyrus vestalis (Goeffroy)      Hymenoptera   Apidae      Common  
 Cuckoo bee inquiline in nest of the bumblebee Bombus terrestris. Uncommon in Northern England.
- Psyllobora vigintiduopunctata (L., 1758)      Coleoptera   Coccinellidae      Common  
 A ladybird which is yellow with black spots. Widely distributed and generally common on low vegetation, but it does not occur in Scotland. Its colour pattern varies very little and both adult and larva feed on mildews. It can be found from April until August.
- Ptomaphagus subvillosus (Gze, 1777)      Coleoptera   Leiodidae      Common  
 2.5-3.5mm long brown beetle living at roots of grass, in litter etc, sometimes in carrion. Predatory. Common.
- Pyronia tithonus Linnaeus      Lepidoptera   Satyridae      Common  
 Common in southern Britain north to mid Yorkshire. Very rare north of that. Grassy places, including woodland rides etc. Larvae feed on coarse grasses.
- Rhagio lineola Fabricius      Diptera   Rhagionidae      Common  
 Smallest of our snipe flies which occurs in woodland and scrub. Adults sit low down on the underside of leaves where they feed on small, soft-bodied insects. Larvae in soil. Widespread and common.
- Rhamphus pulicarius (Herbst, 1795)      Coleoptera   Curculionidae      Common  
 A small (1.5mm long) black flea weevil on willow, birch and sweet gale. Widespread and common throughout Britain, except Shetland and the Isle of Man. Older records may refer to R. oxyacanthae, a more local species, only recently recognised as separate.
- Rhytistylus proceps Kirshbaum      Hemiptera   Cicadellidae      Common  
 A pale brown leafhopper with few darker markings, 3.7-5.2mm. long, found low down on grasses in open well-drained situations, particularly on calcareous soil. Widely distributed but local in the south-east, rarer or absent elsewhere.
- Scaeva pyrastris (Linnaeus)      Diptera   Syrphidae      Common  
 A common hoverfly in the south but scarcer in the north and west and large numbers migrate to Britain from the continent. Eggs are laid among aphids on the underside of a leaf or on a plant stem and three or four days later the 2mm long white larva emerges and hunts its prey. It feeds by plunging its mouthparts into the body of an aphid and sucks out the juices, holding the prey away from the surface on which it is resting, whilst retaining its own hold with the hind part of the body. The larva has also been known to feed on caterpillars. After a few days the slug-like larva changes to green with a pale stripe down the middle of its body. When moving it uses its

mouthparts to secure a hold, pulls up its hind parts and then stretches its head out for another grip, the whole movement being a series of rippling undulations. It is sightless and senses its prey by chemical means, swaying its head from side to side to locate nearby aphids. When fully grown the larva attaches itself to a leaf or stem by its mouthparts and shrinks to a brownish, pear-shaped pupa. After a further ten days the adult fly forces off a piece of the puparium and emerges to feed on pollen and nectar. The adult is a large black hoverfly with creamy or white bar-shaped markings on the abdomen, though there is a black form, unicolor, which lacks these cream/white markings.

- Scathophaga stercoraria* (Linnaeus)                      Diptera Scathophagidae      Common  
The common yellow dung fly is a widespread and usually abundant predatory fly which breeds in dung, especially fresh cow-dung but a wide variety of other sorts can be used. Males are typically covered in long golden-yellow fur whilst females are dirty green. Males spend most of their time near the breeding sites but females disperse widely into all habitats to hunt smaller flies and regularly hunt on the surface of ponds. It has been recorded as feeding on the yellow meadow ant, *Lasius flavus*, and feeding on flies trapped in spiders' webs. Both sexes feed on insects which visit cow pats and not infrequently they attack the solitary wasp *Mellinus arvensis*, which hunts flies in the same place; in these instances the wasp often overcomes the dung fly and carries it away to feed to its larvae.
- Sciodrepoides fumata* (Spence, 1813)                      Coleoptera Leiodidae              Common  
2.5-3.5mm long blackish brown beetle living in plant litter, carrion etc. Generally common species.
- Sehirus bicolor* (Linnaeus)                                      Hemiptera Cydnidae              Common  
Generally distributed and fairly common in S England and Wales but rare or absent north of the midlands. The commonest foodplant is white deadnettle *Lamium album*, but other labiates are occasionally used. No particular habitat preferences: a ready coloniser of ruderal habitats.
- Semiothisa clathrata* (Linnaeus, 1758)                      Lepidoptera Geometridae      Common  
A white or cream moth with a lattice pattern of dark brown or blackish markings, about 3 cm in wingspan. The larvae feed on various members of the Leguminosae. It lives in grassland in a wide range of situations, and is widespread and often common throughout England, Wales and southern Scotland.
- Sitona striatellus* Gyllenhal, 1834                              Coleoptera Curculionidae      Common  
5mm long brown weevil living on gorse and broom. Common.
- Sitona suturalis* Stephens, 1831                              Coleoptera Curculionidae      Common  
3-5mm long brown weevil living on various Leguminosae, especially *Lathyrus pratensis*. Very common.
- Sphaeroderma testaceum* (F., 1775)                              Coleoptera Chrysomelidae      Common  
3.5-4mm hemispherical red flea beetle feeding on foliage of thistles, Locally common throughout
- Spilomena beata* Bluthgen                                      Hymenoptera Sphecidae              Common  
A very small, black solitary wasp which nests in holes in dead wood or in hollow stems. Thrips and possibly aphids are the usual prey of this genus. Kent to Devon, north to Leics and Staffs. Described in Richards (1980), Handbooks for the Identification of British Insect Vol 6, Part 3(b), as 'moderately common'. Species in this genus are hard to identify and are probably overlooked.
- Stenodema calcaratum* (Fallen)                                      Hemiptera Miridae              Common  
A very common grassbug, found on grasses in a wide range of habitat types throughout Britain.

- Stenodema laevigatum* (Linnaeus) Hemiptera Miridae Common  
 A common and widely distributed grassbug, found throughout most of Britain but becoming rare in the extreme north. It lives on grasses in a wide range of habitat types but shows a preference for damper and more luxuriant grasslands, including woodland clearings and river banks. Nymphs and adults feed on the sap and juices of a wide variety of grasses, particularly meadow foxtail, timothy, red fescue, bent and wavy hair-grass. They are especially fond of the flowerheads, piercing and sucking the buds and unripe grains. Adults appear in late July and August and feed readily, building up a fat body to last through the winter. After hibernation they mate and the eggs are laid from late May to early July in the developing flowerheads of the foodplants. The nymphs take about a month to mature, by which time the previous generation have virtually all died. Nymphs are greenish and develop a reddish dorsal stripe in the final instar while the newly-moulted adult is light yellow with thin red lines which soon fade as the ground colour becomes browner. In the spring the females become bright green but the males remain brownish.
- Stygnocoris fuliginus* (Geoffroy in Fourcroy) Hemiptera Lygaeidae Common  
 A common groundbug found throughout Britain. Found on the ground in reasonably dry, open places in a wide range of habitat types: a ready coloniser of ruderal habitats.
- Tachyporus nitidulus* (F., 1781) Coleoptera Staphylinidae Common  
 Small reddish fusiform rove beetle. Moss, leaf litter and grass tussocks etc. Very common in most habitats.
- Tachyporus pusillus* Gravenhorst, 1806 Coleoptera Staphylinidae Common  
 3-4mm long brown fusiform rove beetle usually found among moss and leaf litter. Very common in most of Britain, but apparently more local in the north.
- Thamnotettix dilutior* (Kirschbaum) Hemiptera Cicadellidae Common  
 A brown leafhopper, 5.9-6.7mm. long, usually found on trees but sometimes recorded from grassland and other low vegetation. Widely distributed and common in the south, rarer or absent in the north.
- Thymelicus sylvestris* Poda Lepidoptera Hesperiiidae Common  
 A common butterfly in much of England and Wales but does not occur in the extreme north-east of England nor in Scotland. It frequents rough grassland, especially where the sward is allowed to grow tall, and has a particular preference for long grass edges such as alongside paths and tracks. The eggs are laid in late summer on various soft grasses, particularly bromes and yorkshire fog, *Holcus lanatus*, where they are hidden in grass sheaths, hatch after three to four weeks and the caterpillar goes straight into hibernation. In spring it feeds nocturnally, resting by day in a shelter made by drawing together the sides of a grass blade, and when fully grown it spins several blades together for pupating, which lasts about 14 days. The adult butterfly flies from July to September, roosting communally on grass heads from late afternoon, sometimes in large numbers. The temperature for flying needs to be at least 15-16°C and much time is spent feeding at flowers, particularly thistles and knapweeds. This butterfly would suffer if coarse grasses such as *Brachypodium* were to suppress its more favoured grasses and the cutting of corridors through long grassland might be beneficial to it.
- Trapezonotus desertus* Seidenstucker Hemiptera Lygaeidae Common  
 A common and widely distributed groundbug, at least over much of England and Wales. It occurs in dry sandy places, typically in the more open parts of heaths.
- Trechus quadristriatus* (Schrank, 1781) Coleoptera Carabidae Common  
 3.5-4mm long orange brown ground beetle. Very common species. Under stones, in grass tussocks, on bare ground etc. Most habitats.
- Trichohermes walkeri* Forster Hemiptera Triozidae Common  
 A large reddish brown jumping plant louse, with characteristic brown-patterned forewings. It

feeds on buckthorns *Rhamnus* spp. It is locally common in southern England, and extends north to Cumbria.

*Trioza urticae* (Linnaeus) Hemiptera Triozidae Common  
A pale brown jumping plant louse, about 3mm long, which feeds on nettle. It is widespread and very common throughout Britain.

*Trypoxylon clavicerum* Lepeletier Hymenoptera Sphecidae Common  
Solitary wasp which nests in various cavities such as hollow stems, beetle burrows in wood and occasionally the abandoned nests of other aculeates in sand. The cavity is divided into cells with walls of mud and stocked with spiders. Common in the south of Britain north to Staffs and South Yorkshire.

*Xantholinus longiventris* Heer, 1839 Coleoptera Staphylinidae Common  
6-8mm long shiny black rove beetle. Grass tussocks, leaf litter, loose bark etc. Common throughout Britain, despite the comment by Joy (1930) that it is rare.

*Xylocoris galactinus* (Fallen) Hemiptera Cimicidae Common  
Widely distributed throughout Britain. A small predatory bug found in fermenting or decaying vegetable material where the temperature is high. Manure heaps are perhaps the most frequently recorded habitat.

*Zyginidia scutellaris* (Herrich-Schaeffer) Hemiptera Cicadellidae Common  
A pale yellowish-green leafhopper with conspicuous black markings, 2.3-3mm. long, feeding on grasses in a wide range of situations. Widely distributed and generally common in much of England and Wales, but seemingly absent from the extreme north.

#### **Status Unknown**

*Cratomus megacephalus* (Fabricius, 1793) Hymenoptera Pteromalidae Unknown  
Metallic chalcid wasp with an extraordinary large head. Biology is unknown but it is usually found on wood. Flight period: vi-vii

*Enicmus histrio* Joy & Tomlin, 1910 Coleoptera Lathridiidae Unknown  
A small and rather flattened beetle, 1.5 to 2mm. long, found in plant debris. Widespread but local.

*Lasioglossum lativentris* (Schenck) Hymenoptera Halictidae Unknown  
<No species account available>

*Sphecodes puncticeps* Thomson Hymenoptera Halictidae Unknown  
<No species account available>

#### **Synanthropic**

*Achaearanea tepidariorum* (C.L.Koch, 1841) Araneae Theridiidae Synanthropic

A spider found throughout Britain in heated greenhouses and similar situations. Very occasionally found outside in southern England.

### APPENDIX 3 - DATA SHEETS FROM SPECIES GROUP REVIEWS FOR RDB & NATIONALLY SCARCE CATEGORY A SPECIES

The following Data Sheets are taken from Falk (1991) for the Hymenoptera (bees and wasps), and Hyman & Parsons (1992) for the Coleoptera (beetles) with permission from the JNCC.

---

**ANDRENA HATTORFIANA (Fabricius)**  
**HYMENOPTERA**  
**ANDRENIDAE**  
A mining bee

---

**RARE**

**IDENTIFICATION** Else (in prep.)

**DISTRIBUTION** Recorded widely in southern England (W.Cornwall, E.Cornwall, S.Devon, S.Wiltshire, Dorset, Isle of Wight, S.Hampshire, N.Hampshire, W.Sussex, E.Sussex, E.Kent, W.Kent, Surrey, N.Essex, Berkshire, Oxfordshire, E.Suffolk, W.Suffolk, E.Norfolk, W.Norfolk). There are also records for south Wales (Glamorganshire).

**HABITAT** Dry grassland (usually calcareous) both on the coast and inland. Records include coastal landslip situations and cliff-tops, chalk downland, chalk heath (especially in East Anglia), road verges, traditional agricultural settings and fixed coastal dune. It has been reported at an altitude of nearly 300 metres on Dartmoor (R.C.L. Perkins 1923). There is a close, and possibly obligate, association with field scabious *Knautia arvensis*.

**ECOLOGY** Nest sites include exposed earth along paths and more vegetated turf (Hamm 1901). Nest entrances are either widely scattered or in tight aggregations. Warm, sunny situations are required but it is unclear whether areas of tall vegetation can be used, and it may prefer the warmer microclimate produced by short-cropped or sparse vegetation. The species is single brooded, with adults reported from June to August. The females gather pollen primarily from *Knautia*, though some populations may use *Scabiosa columbaria*. This was found to be the case with late flying females in Germany (Westrich 1989). Other flower visits are reported for *Trifolium repens*, *Pastinaca sativa*, *Crepis capillaris*, *Centaurea nigra* and *Lapsana*, though these may represent nectar sources only. *A. hattorfiana* is the host of the RDB1 cleptoparasitic bee *Nomada armata*.

**STATUS** A large and unmistakable bee which has declined substantially during this century. It has always been local, but was reasonably widespread in southern England in the past and locally common in some areas. Post-1970 records are known for about 15 sites in W.Cornwall, S.Devon, S.Wiltshire, Dorset, S.Hampshire, N.Hampshire, E.Sussex, E.Kent, Oxfordshire, W.Suffolk and W.Norfolk. Two of these sites are NNRs, but many of the other sites support small populations and may be vulnerable to agricultural improvement or development. The intensification of agriculture in lowland England, and the effects of myxomatosis on rabbit populations are probably important factors behind this decline. Abroad, it is found over most of Europe from southern Fennoscandia to the south of France, Austria and east to Caucasus and Transcaspia (Else - in prep.). The conservation status has been revised from RDB2 (Shirt 1987).

**THREATS** Habitat loss to intensive agriculture, urbanisation, commercial forestry, coastal development, cliff stabilisation etc. The encroachment of scrub and grasses such as rank *Brachypodium* are likely to be the main threats on many downland sites, whilst invading scrub and bracken could be a problem in western parts of its range. The effects of myxomatosis on rabbit populations and the use of agricultural chemicals on road verges and field margins may also have had serious consequences for this bee at many sites.



**MANAGEMENT** Maintain sites in an open state with plenty of *Knautia* and some relatively short-cropped swards or sparsely vegetated areas in sunny situations for nesting. Continue any established management such as grazing or cutting that contributes to the overall character and stability of a site (especially the presence of *Knautia*), and holds back succession. Consider the introduction of management on unmanaged sites, especially where succession is a problem. Management should be on rotation to promote areas of short turf and taller swards with flowering *Knautia*. Avoid the use of agricultural chemicals in the vicinity of *A. hattorfiana* colonies.

**ADDITIONAL REFERENCES** Archer (1986b), Barrett (1901), Bridgman (1879a,b), Chitty (1903a,b), Clark (1906a,b), Dicker (1983), M. Edwards (1979), Else (1977), Else & Spooner (1987), Felton (1963), Frisby (1928), Guichard (1977), Haines (1914), Hallett (1921, 1927, 1935), Hamm (1901, 1906, 1926), B.S. Harwood (1902a,b), W.H. Harwood (1884), Hocking (1901), H.P. Jones (1925-26), Mclean (1988), Miles (1988, 1989), Morice (1893), Morley (1909, 1911), Nevinson (1905), Nicholson (1928), Packer (1978), R.C.L. Perkins (1886, 1919a), Rothney (1882), E. Saunders (1882d, 1896a, 1898b, 1917), Sladen (1900, 1908), Smith (1861, 1867a), Spooner (unpublished Cornwall, Devon, Dorset and Norfolk lists).

---

**DIASTICTUS VULNERATUS (Sturm)**

**VULNERABLE**

**COLEOPTERA**  
**SCARABAEIDAE**  
A dung beetle

---

**IDENTIFICATION** Jessop (1986)

**DISTRIBUTION**

Recorded from West Suffolk before 1970 and West Suffolk and West Norfolk since 1970.

**HABITAT AND ECOLOGY**

Dry, open heathy areas on sandy soils. In entrances to rabbit burrows, under stones, in moss and in ground litter. Probably feeds on vegetable debris. Adults have been recorded from April to early July and November.

**STATUS**

Extremely local. Only known from the Breckland area of Suffolk and Norfolk.

**THREATS**

Much Breckland has been lost, or fragmented, through changes in land use, mainly by conversion to arable agriculture and forestry. Habitat degradation through the cessation of traditional management leading to loss through invasion by bracken and scrub is a further threat.

**MANAGEMENT AND CONSERVATION**

Management should aim for a diversity of successional stages from bare ground to mature breck grassland, preferably by animal grazing or by rotational cutting and scraping.

**PUBLISHED SOURCES**

JESSOP, L. 1986. Coleoptera: Scarabaeoidea. Handbooks for the Identification of British Insects. 5 (11).

SHIRT, D.B., ED. 1987. British Red Data Books: 2. Insects. Peterborough, Nature Conservancy Council.

---

**LASIOGLOSSUM BREVICORNE (Schenck)**

**RARE**

**HYMENOPTERA**

**HALICTIDAE**

A mining bee

---

**IDENTIFICATION** Else (in prep.)

**DISTRIBUTION** Recorded sparingly in southern England from Dorset (Parley, Canford, Southaven and the Bournemouth area), S. Hampshire (adjacent Bournemouth areas east to Hengistbury Head) N. Hampshire (Slab), W. Sussex (Rewell Wood and Sullington), Surrey (Horsell Common) and the Brecks of W. Suffolk and W. Norfolk (including several sites in the Thetford area, Lakenheath airfield and Cavenham Heath NNR). A record for Eastbourne, E. Sussex (E. Saunders 1907a) requires confirmation.

**HABITAT** Most records relate to sandy heathland.

**ECOLOGY** The nesting habits and life history are apparently unknown. It is thought to nest in bare or sparsely vegetated sandy soil in warm, sunny situations (e.g. south-facing banks or slopes, tracks and footpaths). It is probably single-brooded, with adult females recorded from early May to early August and males in mid August (flight period probably somewhat longer than this). The British pollen sources are unknown, though E. Saunders (1907) reports taking eight females on *Hypochoeris radiata* at Hengistbury Head. On the Continent, Westrich (1989) lists *Hieraceum pilosella*, *Taraxacum officinale* and *Leontodon autumnalis* as pollen sources.

**STATUS** A very local species with post-1970 records for seven localities (Slab, Rewell Wood, Horsell Common, Cavenham Heath, Lakenheath airfield, Thetford Golf Course and nearby Santon Downham). There are old records for at least four sites in Dorset, where it has apparently not been recorded for about 30 years. It is likely to have declined in response to the loss and deterioration of sandy heathland, but it is not an easy species to identify and may have been under recorded, especially in areas such as the Brecks. Its early history in Britain is complicated by confusion with *L. pauperatum* (as *L. breviceps*) (see E. Saunders 1884a). Records of '*brevicornis*' prior to E. Saunders (1907a), refer to this latter species. Abroad, it is recorded in the west Palaearctic from Morocco to Afghanistan, north to England and south Sweden (Westrich 1989).

**THREATS** Habitat loss to agriculture, urbanisation, coastal development, intensive forestry etc. The encroachment of scrub and other coarse vegetation, has probably left many further sites unsuitable through a loss of suitable nesting areas and forage plants. This follows a decline in traditional heathland use and the effects of myxomatosis on rabbit populations. At some sites, horse riding and motorcycle activity could be damaging.

**MANAGEMENT** Maintain sites in an open state with plenty of bare or sparsely vegetated sandy ground in warm, sunny situations for nesting, and a rich and varied flora for foraging. Yellow composites seem to be particularly important. Continue any established management (e.g. grazing, cutting, burning), or disturbance, that contributes to the overall character and stability of a site and holds back succession. Consider the introduction of management onto unmanaged sites, especially where succession is a problem.

**ADDITIONAL REFERENCES** Anon (1983), Archer (1988b), Guichard (1977).

---

**MASOREUS WETTERHALLI** (Gyllenhal)  
**COLEOPTERA**  
**CARABIDAE**  
A ground beetle

---

**NOTABLE A**

**IDENTIFICATION** Lindroth ( 1974)

**DISTRIBUTION**

Recorded from Dorset, East Sussex, East Kent, South Essex, North Essex, East Norfolk and West Norfolk before 1970 and West Cornwall, Dorset, East Sussex, East Kent, West Suffolk, East Norfolk and West Norfolk since 1970.

**HABITAT AND ECOLOGY**

Sand dunes, coastal cliffs, coastal shingle, sea walls and on sparsely vegetated sand or gravel, often near the coast. Probably predatory. Adults usually hide under mats of vegetation such as heather and thyme, and have also been found under pieces of old wood. Adults have been recorded in January, February, from April to September and in November.

**STATUS**

Very local. Recorded from coastal vice-counties from West Cornwall to West Norfolk.

**THREATS**

Loss of dune habitat, particularly through afforestation, urban and holiday development. Cliff stabilisation schemes, the construction of sea defences, gravel extraction, and the degradation of remaining habitat by natural succession and the invasion of scrub on stabilised areas are further threats.

**MANAGEMENT AND CONSERVATION**

Disturbance of coastal shingle should be avoided. In areas of cliff occasional slippages are necessary to maintain habitat continuity. Large areas of unstable cliff are required so that the population does not become isolated and subsequently threatened by individual landslips. Some grazing and other disturbance may be desirable to maintain the early successional stages and prevent the invasion of scrub.

**PUBLISHED SOURCES**

FOWLER, W.W. 1891. The Coleoptera of the British Isles!!. Volumes 1-5 (1887-1891). London, Reeve.  
LINDROTH, C.H. 1974. Coleoptera: Carabidae. Handbooks for the Identification of British Insects!!. 4 (2).  
MENDEL, H. 1980. Notes on Suffolk Carabidae (Coleoptera) including two species new to the county list. Trans. Suffolk Nat. Soc.18(2): 141-143.

---

**OXYBELUS MANDIBULARIS** Dahlbom  
**HYMENOPTERA**  
**SPHECIDAE**  
A solitary wasp

---

**NOTABLE A**

**IDENTIFICATION** Richards (1980)

**DISTRIBUTION** Records widely dispersed in the southern half of Britain (N. Devon, Dorset, S. Hampshire, W. Sussex, Surrey, E. Suffolk, W. Suffolk, W. Norfolk, E. Norfolk, Glamorganshire, Carmarthenshire, Cardiganshire, Merionethshire and Cheshire). Records relate fairly equally to coastal and inland locations. A record for Ayrshire (Daglish 1901; Clark 1910) requires confirmation.

**HABITAT** Open, sandy situations on coastal dunes and heathland. Lomholdt (1975-76) states that this species does not occur on dunes (in a Fennoscandian context), though this is clearly not the case in Britain.

**ECOLOGY** Nesting occurs in bare or sparsely vegetated sand in warm, sunny situations. The adult female is predatory upon diptera, especially "muscoids" (e.g. Sarcophagidae, Muscidae and Tachinidae). Each cell is provisioned with 4-6 flies (Lomholdt 1975-76). Prey is probably carried back to the nest impaled on the sting (a characteristic habit of many, if not all, members of the genus). Adults are recorded from June to September and have been observed visiting flowers such as *Carduus*, *Achillea*, *Euphorbia* and *Rubus*.

**STATUS** This is a very local species, known from some 20 post-1970 sites, which has declined, especially inland. The loss of open, sandy heathland is probably responsible for much of this decline. It rarely appears to be common at a site. This is the *O. sericatus* of older literature. Abroad, this species is widespread in Europe (Lomholdt 1975-76).

**THREATS** The loss of open, sandy situations to coastal development, urbanisation, agriculture, intensive forestry etc. Changes in land management or declines in rabbit grazing may lead to habitat loss through scrub encroachment and the loss of bare sand. At some sites, horse riding and motorcycle activity could be very detrimental, but some disturbance will be necessary at many sites to maintain the presence of bare sand.

**MANAGEMENT** Maintain the presence of open sandy areas and the causal factors responsible for promoting these (e.g. grazing, disturbance or controlled burning). On coastal dunes, a reasonably full transition of successional stages will be important, to ensure that any subtle requirements of this species are included. On heathland, the maintenance of sandy tracks and firebreaks (preferably in a piecemeal manner), and the creation of bare sand patches, could provide extra opportunities for this species.

**ADDITIONAL REFERENCES** Archer (1987b, 1988b, 1989c), Arnold (1906b, 1908, 1909), Barrett (1901), Bridgman (1879a), H.G. & R.J. Champion (1914b), Clark (1910), C.W. Dale (1881), M. Edwards (1976, 1979), Else (1981), Guichard (1977), Haines (1914), Hallett (1916, 1927), H.P. Jones (1925-26), Morice (1899, 1901e), Morley (1935b), Mortimer (1905), Nevinson (1900), R.C.L. Perkins (1923), Roberts (1989), E. Saunders (1879a, 1881, 1888, 1896a, 1897, 1900f, 1902b, 1907c), Spooner (1934c, 1943, 1969; unpublished Devon, Dorset and Norfolk lists), Swale (1893).

---

**PHILANTHUS TRIANGULUM (Fabricius)**  
**HYMENOPTERA**  
**SPHECIDAE**

**VULNERABLE**

The 'Bee-wolf' (a solitary wasp)

---

**IDENTIFICATION** Richards (1980)

**DISTRIBUTION** Recorded sparingly in southern England from the Isle of Wight, S. Hampshire, E. Kent, Surrey, S. Essex, N. Essex, W. Suffolk, and E. Suffolk. An old record for south Wales cited by Else & Spooner *in* Shirt (1987) is re-assessed as erroneous by Else (1989b) who gives a list of the known sites to date.

**HABITAT** Open, sandy habitats, in warm and sunny situations. The Isle of Wight colonies are associated with sandy cliffs and dunes. Other records, which include actual breeding colonies, as well as isolated captures, usually refer to sandy heathland, sandy coastal areas and other disturbed, sandy locations.

**ECOLOGY** This is one of the most intensely studied sphecids and the subject of many publications (e.g. Tinbergen 1951 and other references listed by Else 1989b; Lomholdt 1975-76; Hamm & Richards 1930). Nesting occurs in both vertical and level sand in warm situations fully exposed to the sun, often in large aggregations. The nest entrances are rarely less than 10cm apart due to aggressive behaviour between females. The nests consist of a main tunnel up to one metre long. This tunnel declines at about 30° in its first stretch, then continues horizontally, giving rise to 3-34 short side tunnels with terminal cells. The nest is excavated using the strong forelegs and takes about three days to complete. The nest cells are provisioned with paralysed bees, mostly honeybees *Apis mellifera*, but also mining bees such as large *Andrena* and *Lasioglossum* species. Up to four honeybees may be collected each day and up to 108 bees in total during its flight period of about six weeks. Each cell is stocked with between three and six individuals. The adult *Philanthus* also eats a considerable number of bees for its own sustenance and is consequently a serious pest of honeybees in many parts of its world range (but not in Britain). This species is single brooded in northern parts of its European range, whilst in central Europe a second generation is occasionally recorded. In Britain, the flight period extends from early July to mid or late August and adults are usually taken on flowers such as *Cirsium*, *Carduus*, *Senecio*, *Eupatorium*, *Rubus*, *Armeria*, *Eryngium*, *Linaria* and *Calluna*, where they may feed on nectar in addition to capturing prey.

**STATUS** *Philanthus* is well known in Europe for its dramatic fluctuations in distribution in response to climatic change (e.g. Braestrup & Nielsen 1941; Leclerq 1944), and the irregular nature of its status in England suggests that some records relate to transitory populations or vagrants. The best known permanent colonies in Britain occur on the Isle of Wight. It has had a long history on this island (since 1828) and is currently established at three sites, being abundant at one of these in most seasons (Else & Spooner *in* Shirt 1987; Else 1989b). Recent records (both 1985) for Hayling Island and Gosport in S. Hampshire may represent vagrants from Isle of Wight populations. Further modern records exist for three East Anglian sites: Fingringhoe Wick, N. Essex (where a small nesting aggregation was discovered in 1986); Nacton Heath, near Ipswich, E. Suffolk (recorded in 1976 and 1987) and West Stow Heath, in the Brecks of W. Suffolk (where it was found independently by two recorders in 1983 and 1984 respectively). The lack of historic records for these three vice-counties suggests that those populations may have been acquired fairly recently, and may not be of a fully permanent nature. Apart from the Isle of Wight, further records are very old, originating from the last century. Abroad, this is one of the most widely distributed sphecid wasps, its European population being mainly concentrated around the Mediterranean (Lomholdt 1975-76; Heath & Leclerq 1981).

**THREATS** On the Isle of Wight these mainly involve the loss of its sandy nesting sites to coastal development, cliff stabilisation and the construction of sea defences. Whilst it currently seems to benefit from mild disturbance caused by trampling, excessive disturbance could be very damaging. At heathland sites on the mainland, urbanisation, intensive forestry and agricultural reclamation are the major threats. It may also be susceptible to succession where traditional land management has ceased or myxomatosis has cut the level of rabbit grazing.

**MANAGEMENT** Maintain good expanses of bare or sparsely vegetated sand, with plenty of flower-rich areas for prey interception. Retain any forms of management or disturbance that promote these conditions and hold back succession.

**ADDITIONAL REFERENCES** Archer (1987b, 1988b), Blair (1948), Else (1977, 1980, 1981), Freke (1900), Guichard (1977), H. P. Jones (1925-26), Morley (1909), Packer (1980), Richards (1964), E. Saunders (1896a, 1897, 1900f, 1902b), Sladen (1908), Spooner (1943; unpublished Dorset list), Wakeley (1955).



## Appendix 4

### Full List of All Species Recorded at RAF Lakenheath in June 1993 sorted taxonomically

<b>Mollusca</b>						
<i>Candidula intersecta</i> (Poiret, 1801)	Helicidae	Local	<i>Euscelis incisus</i> (Kirschbaum)	Cicadellidae	Common	
<i>Cepaea nemoralis</i> (L., 1758)	Helicidae	Common	<i>Thamnotettix dilutior</i> (Kirschbaum)	Cicadellidae	Common	
<b>Odonata</b>			<i>Alebra albostrigata</i> (Fallen)	Cicadellidae	Common	
<i>Enallagma cyathigerum</i> (Charpentier, 1840)	Coenagriidae	Common	<i>Dikraneura variata</i> Hardy	Cicadellidae	Common	
<b>Orthoptera</b>			<i>Eurhadina pulchella</i> (Fallen)	Cicadellidae	Common	
<i>Stenobothrus lineatus</i> (Panzer, 1796)	Acrididae	Local	<i>Eupteryx florida</i> Ribaut	Cicadellidae	Local	
<i>Omocestus viridulus</i> (L., 1758)	Acrididae	Common	<i>Eupteryx melissae</i> Curtis	Cicadellidae	Common	
<i>Myrmeleotettix maculatus</i> (Thunberg, 1815)	Acrididae	Common	<i>Eupteryx urticae</i> (Fabricius)	Cicadellidae	Common	
<i>Chorthippus albomarginatus</i> (DeGeer, 1773)	Acrididae	Local	<i>Zyginidia scutellaris</i> (Herrich-Schaeffer)	Cicadellidae	Common	
<i>Chorthippus brunneus</i> (Thunberg, 1815)	Acrididae	Common	<i>Kelisia sabulicola</i> Wagner	Delphacidae	Local	
<i>Chorthippus parallelus</i> (Zetterstedt, 1821)	Acrididae	Common	<i>Dicranotropis hamata</i> (Boheman)	Delphacidae	Common	
<b>Dermoptera</b>			<i>Hyledelphax elegantulus</i> (Boheman)	Delphacidae	Common	
<i>Forficula auricularia</i> L.	Forficulidae	Common	<i>Javesella pellucida</i> (Fabricius)	Delphacidae	Common	
<b>Heteroptera</b>			<i>Trichohermes walkeri</i> Forster	Triozidae	Common	
<i>Sehirus bicolor</i> (Linnaeus)	Cydnidae	Common	<i>Triozia urticae</i> (Linnaeus)	Triozidae	Common	
<i>Odontoscelsis lineola</i> Rambur	Scutelleridae	Notable/Nb	<b>Neuroptera</b>			
<i>Aelia acuminata</i> (Linnaeus)	Pentatomidae	Local	<i>Chrysopa carnea</i> Stephens	Chrysopidae	Common	
<i>Dolycoris baccarus</i> (Linnaeus)	Pentatomidae	Common	<b>Coleoptera</b>			
<i>Piezodorus lituratus</i> (Fabricius)	Pentatomidae	Common	<i>Notiophilus aquaticus</i> (L., 1758)	Carabidae	Local	
<i>Syromastus rhombeus</i> (Linnaeus)	Coreidae	Local	<i>Notiophilus germinyi</i> Fauvel, 1863	Carabidae	Local	
<i>Alydus calcaratus</i> (Linnaeus)	Alydidae	Local	<i>Trechus quadristriatus</i> (Schrank, 1781)	Carabidae	Common	
<i>Rhopalus parumpunctatus</i> Schilling	Rhopalidae	Local	<i>Bembidion lampros</i> (Herbst, 1784)	Carabidae	Common	
<i>Chorosoma schillingi</i> (Schummel)	Rhopalidae	Local	<i>Bembidion properans</i> Stephens, 1828	Carabidae	Common	
<i>Nysius thymi</i> (Wolff)	Lygaeidae	Common	<i>Calathus ambiguus</i> (Paykull, 1790)	Carabidae	Notable/Nb	
<i>Peritrechus lundii</i> (Gmelin)	Lygaeidae	Local	<i>Calathus erratus</i> (Sahlberg, 1827)	Carabidae	Common	
<i>Graptopeltus lynceus</i> (Fabricius)	Lygaeidae	Notable/Nb	<i>Calathus cinctus</i> Motschulsky, 1850	Carabidae	Local	
<i>Trapezonotus desertus</i> Seidenstucker	Lygaeidae	Common	<i>Calathus fuscipes</i> (Goeze, 1777)	Carabidae	Common	
<i>Stygnocoris fuliginosus</i> (Geoffroy in Fourcroy)	Lygaeidae	Common	<i>Calathus melanocephalus</i> sens. str. (L., 1758)	Carabidae	Common	
<i>Neides tipularius</i> (Linnaeus)	Berytinidae	Local	<i>Amara aenea</i> (Degeer, 1774)	Carabidae	Common	
<i>Nabis ferus</i> (Linnaeus)	Nabidae	Common	<i>Amara bifrons</i> (Gyllenhal, 1810)	Carabidae	Local	
<i>Aptus mirmicoides</i> (Costa)	Nabidae	Common	<i>Amara equestris</i> (Duftschmid, 1812)	Carabidae	Notable/Nb	
<i>Anthocoris nemorum</i> (Linnaeus)	Cimicidae	Common	<i>Amara eurynota</i> (Panzer, 1796)	Carabidae	Local	
<i>Acomporis pygmaeus</i> (Fallen)	Cimicidae	Common	<i>Amara fulva</i> (Mueller, 1776)	Carabidae	Notable/Nb	
<i>Orius niger</i> (Wolff)	Cimicidae	Common	<i>Amara tibialis</i> (Paykull, 1798)	Carabidae	Local	
<i>Xylocoris galactinus</i> (Fallen)	Cimicidae	Common	<i>Harpalus rufipes</i> (Degeer, 1774)	Carabidae	Common	
<i>Deraeocoris ruber</i> (Linnaeus)	Miridae	Common	<i>Harpalus affinis</i> (Schrank, 1781)	Carabidae	Common	
<i>Megalocoleus molliculus</i> (Fallen)	Miridae	Common	<i>Harpalus anxius</i> (Duftschmid, 1812)	Carabidae	Local	
<i>Plagiognathus arbustorum</i> (Fabricius)	Miridae	Common	<i>Harpalus attenuatus</i> Stephens, 1828	Carabidae	Local	
<i>Plagiognathus chrysanthemii</i> (Wolff)	Miridae	Common	<i>Harpalus rubripes</i> (Duftschmid, 1812)	Carabidae	Local	
<i>Chlamydatus pulicarius</i> (Fallen)	Miridae	Notable/Nb	<i>Harpalus servus</i> (Duftschmid, 1812)	Carabidae	Notable/Nb	
<i>Chlamydatus pullus</i> (Reuter)	Miridae	Common	<i>Harpalus smaragdinus</i> (Duftschmid, 1812)	Carabidae	Notable/Nb	
<i>Campyloneura virgula</i> (Herrich-Schaeffer)	Miridae	Common	<i>Harpalus tardus</i> (Panzer, 1796)	Carabidae	Local	
<i>Halticus luteicollis</i> Panzer	Miridae	Local	<i>Harpalus vernalis</i> (Duftschmid, 1812)	Carabidae	Na	
<i>Heterotoma meriopterum</i> (Scopoli)	Miridae	Common	<i>Bradycellus verbasci</i> (Duftschmid, 1812)	Carabidae	Common	
<i>Lygus rugulipennis</i> Poppius	Miridae	Common	<i>Masoreus wetterhalli</i> (Gyllenhal, 1813)	Carabidae	Na	
<i>Liocoris tripustulatus</i> (Fabricius)	Miridae	Common	<i>Metabletus foveatus</i> (Fourcroy, 1785)	Carabidae	Common	
<i>Orthops campestris</i> (Linnaeus)	Miridae	Common	<i>Helophorus rufipes</i> (Bosc d'Antic, 1791)	Hydrophilidae	Local	
<i>Polymerus unifasciatus</i> (Fabricius)	Miridae	Local	<i>Kissister minimus</i> (Aube, 1850)	Histeridae	Local	
<i>Charagochilus gyllenhalii</i> (Fallen)	Miridae	Local	<i>Paralister purpurascens</i> (Herbst, 1792)	Histeridae	Local	
<i>Calocoris norvegicus</i> (Gmelin)	Miridae	Common	<i>Leiodes dubia</i> (Kugelann, 1794)	Leiodidae	Local	
<i>Adelphocoris lineolatus</i> (Goeze)	Miridae	Common	<i>Ptomaphagus subvillosus</i> (Goeze, 1777)	Leiodidae	Common	
<i>Phytocoris varipes</i> Boheman	Miridae	Common	<i>Sciodrepoides fumata</i> (Spence, 1813)	Leiodidae	Common	
<i>Stenodema calcaratum</i> (Fallen)	Miridae	Common	<i>Silpha laevigata</i> F., 1775	Silphidae	Local	
<i>Stenodema laevigatum</i> (Linnaeus)	Miridae	Common	<i>Silpha tristis</i> Illiger, 1798	Silphidae	Local	
<i>Notostira elongata</i> (Geoffroy in Fourcroy)	Miridae	Common	<i>Bledius atricapillus</i> (Germar, 1825)	Staphylinidae	Local	
<i>Megaloceraea recticornis</i> (Geoffroy)	Miridae	Common	<i>Anotylus tetracaratus</i> (Block, 1799)	Staphylinidae	Common	
<b>Homoptera</b>			<i>Xantholinus longiventris</i> Heer, 1839	Staphylinidae	Common	
<i>Centrotus cornutus</i> (Linnaeus)	Membracidae	Local	<i>Philonthus addendus</i> Sharp, 1867	Staphylinidae	Local	
<i>Gargara genistae</i> (Fabricius)	Membracidae	Local	<i>Philonthus concinnus</i> (Gravenhorst, 1802)	Staphylinidae	Common	
<i>Megophthalmus scabripennis</i> Edwards	Cicadellidae	Common	<i>Philonthus tenuicornis</i> Mulsant & Rey, 1853	Staphylinidae	Local	
<i>Iassus lanius</i> (Linnaeus)	Cicadellidae	Common	<i>Philonthus varius</i> (Gyllenhal, 1810)	Staphylinidae	Common	
<i>Agallia venosa</i> (Fallen)	Cicadellidae	Common	<i>Platydracus stercorarius</i> (Olivier, 1795)	Staphylinidae	Local	
<i>Aphrodes albifrons</i> (Linnaeus)	Cicadellidae	Common	<i>Ocyopus fortunatarum</i> Wollaston, 1871	Staphylinidae	Notable/Nb	
<i>Aphrodes histrionicus</i> (Fabricius)	Cicadellidae	Common	<i>Ontholestes murinus</i> (L., 1758)	Staphylinidae	Common	
<i>Aphrodes makarovi</i> Zakhvatkin	Cicadellidae	Common	<i>Tachyporus hypnorum</i> (F., 1775)	Staphylinidae	Common	
<i>Doratula stylata</i> Boheman	Cicadellidae	Common	<i>Tachyporus nitidulus</i> (F., 1781)	Staphylinidae	Common	
<i>Diplocolenus abdominalis</i> (Fabricius)	Cicadellidae	Common	<i>Tachyporus pusillus</i> Gravenhorst, 1806	Staphylinidae	Common	
<i>Psammotettix cephalotes</i> (Herrich-Schaeffer)	Cicadellidae	Common	<i>Drusilla canaliculata</i> (F., 1787)	Staphylinidae	Common	
<i>Psammotettix confinis</i> (Dahlbom)	Cicadellidae	Common	<i>Aleochara bipustulata</i> (L., 1761)	Staphylinidae	Common	
<i>Psammotettix nodosus</i> (Ribaut)	Cicadellidae	Common	<i>Diastictus vulneratus</i> (Sturm, 1805)	Scarabaeidae	RDB2	
			<i>Byrrhus fasciatus</i> (Forster, 1771)	Byrrhidae	Common	
			<i>Byrrhus pustulatus</i> (Forster, 1771)	Byrrhidae	Local	
			<i>Curimopsis maritima</i> (Marsham, 1802)	Byrrhidae	Local	
			<i>Prosternon tessellatum</i> (L., 1758)	Elateridae	Local	
<i>Rhytistylus proceps</i> Kirshbaum	Cicadellidae	Common				



Trixagus dermestoides (L., 1767)	Throscidae	Local	Chloromyia formosa (Scopoli)	Stratiomyidae	Common
Rhagonycha fulva (Scopoli, 1763)	Cantharidae	Common	Rhagio lineola Fabricius	Rhagionidae	Common
Anthrenus verbasci (L., 1767)	Dermestidae	Common	Dysmachus trigonus (Mg)	Asilidae	Local
Brachypterus glaber (Stephens, 1835)	Nitidulidae	Common	Epitriptus cingulatus (Fabricius)	Asilidae	Local
Brachypterus pulicarius (L., 1758)	Nitidulidae	Common	Eutolmus rufibarbis (Meigen)	Asilidae	pRDB3
Meligethes aeneus (F., 1775)	Nitidulidae	Common	Machimus atricapillus (Fallen)	Asilidae	Common
Meligethes planiusculus (Heer, 1841)	Nitidulidae	Local	Thereva nobilitata (F)	Therevidae	Common
Olibrus aeneus (F., 1792)	Phalacridae	Common	Phthiria pulicaria	Bombyliidae	Notable/Nb
Olibrus affinis (Sturm, 1807)	Phalacridae	Local	Platypalpus longisetus Zetterstedt	Empididae	Common
Stilbus testaceus (Panzer, 1796)	Phalacridae	Common	Platypalpus pallidiventris (Meigen)	Empididae	Common
Subcoccinella 24-punctata (L., 1758)	Coccinellidae	Common	Hybos culiciformis (Fabricius)	Empididae	Common
Tythaspis sedecimpunctata (L., 1758)	Coccinellidae	Local	Medetera micacea Loew	Dolichopodidae	Local
Adalia bipunctata (L., 1758)	Coccinellidae	Common	Medetera saxatilis Collin	Dolichopodidae	Local
Coccinella septempunctata L., 1758	Coccinellidae	Common	Medetera truncorum Meigen	Dolichopodidae	Common
Propylea quattuordecimpunctata (L., 1758)	Coccinellidae	Common	Lonchoptera furcata (Fal.)	Lonchopteridae	Common
Psyllobora vigintiduopunctata (L., 1758)	Coccinellidae	Common	Melanostoma melinum (Linnaeus)	Syrphidae	Common
Enicmus transversus (Olivier, 1790)	Coccinellidae	Common	Platycheirus clypeatus agg. (Meigen)	Syrphidae	Common
Orthocerus clavicornis (L., 1758)	Lathridiidae	Common	Paragus haemorrhous Meigen	Syrphidae	Local
Crypticus quisquilius (L., 1761)	Colydiidae	Notable/Nb	Chrysotoxum binctum (L)	Syrphidae	Local
Lagria hirta (L., 1758)	Tenebrionidae	Notable/Nb	Episyrrhus balteatus (Degeer)	Syrphidae	Common
Cteniopus sulphureus (L., 1758)	Tenebrionidae	Common	Scaeva pyrastris (Linnaeus)	Syrphidae	Common
Oedemera lurida (Marsham, 1802)	Tenebrionidae	Local	Sphaerophoria scripta (Linnaeus)	Syrphidae	Common
Anthicus floralis (L., 1758)	Oedemeridae	Local	Eristalis tenax (Linnaeus)	Syrphidae	Common
Leptura livida F., 1777	Anthicidae	Common	Syrirta pipiens (Linnaeus)	Syrphidae	Common
Strangalia melanura (L., 1758)	Cerambycidae	Local	Sicus ferrugineus (L)	Conopidae	Local
Cryptocephalus fulvus Goeze, 1777	Cerambycidae	Local	Tephritis vespertina (Loew, 1844)	Tephritidae	Common
Chrysolina marginata (L., 1758)	Chrysomelidae	Local	Minettia rivosca (Meigen)	Lauxaniidae	Common
Gastrophysa polygona (L., 1758)	Chrysomelidae	Na	Sapromyza quadripunctata Linnaeus	Lauxaniidae	Unknown
Phytodecta olivacea (Forster, 1771)	Chrysomelidae	Local	Calliopum geniculatum (Fabricius)	Lauxaniidae	Local
Phyllotreta atra (F., 1775)	Chrysomelidae	Local	Trixoscelis marginella (Fallen)	Heleomyzidae	Notable/Nb
Phyllotreta cruciferae (Goeze, 1777)	Chrysomelidae	Notable/Nb	Trixoscelis obscurella (Fallen)	Heleomyzidae	Local
Phyllotreta undulata Kutschera, 1860	Chrysomelidae	Common	Pherbellia cinerella (Fallen)	Sciomyzidae	Common
Aphthona euphorbiae (Schrank, 1781)	Chrysomelidae	Local	Coremacera marginata (F.)	Sciomyzidae	Local
Longitarsus flavicornis (Stephens, 1831)	Chrysomelidae	Common	Limnia unguicornis (Scopoli)	Sciomyzidae	Common
Longitarsus jacobaeae (Waterhouse, 1858)	Chrysomelidae	Common	Eriothrix rufomaculata (DeGeer, 1776)	Tachinidae	Common
Longitarsus pratensis (Panzer, 1794)	Chrysomelidae	Common	Scathophaga stercoraria (Linnaeus)	Scathophagidae	Common
Longitarsus succineus (Foudras, 1860)	Chrysomelidae	Common	<b>Hymenoptera</b>		
Crepidodera ferruginea (Scopoli, 1763)	Chrysomelidae	Common	Brachymera minuta	Chalcididae	Notable/Nb
Chaetocnema hortensis (Foucroy, 1785)	Chrysomelidae	Common	Cratomus megacephalus (Fabricius, 1793)	Pteromalidae	Unknown
Sphaeroderma testaceum (F., 1775)	Chrysomelidae	Common	Chrysis helleni Linsenmaier	Chrysididae	Notable/Nb
Pseudapion rufirostre (F., 1775)	Apionidae	Common	Tiphia femorata Fabricius	Tiphidae	Local
Exapion ulicis (Forster, 1771)	Apionidae	Common	Myrmosa atra Panzer	Tiphidae	Local
Apion haematodes (L., 1758)	Apionidae	Common	Myrmica ruginodis Nylander	Formicidae	Common
Pirapion immune (Kirby, 1808)	Apionidae	Local	Myrmica sabuleti Meinhert	Formicidae	Local
Otiorhynchus ligneus (Olivier, 1807)	Curculionidae	Common	Formica fusca Linnaeus	Formicidae	Common
Otiorhynchus ovatus (L., 1758)	Curculionidae	Local	Lasius niger (Linnaeus)	Formicidae	Common
Trachyploeus spinimanus Germar, 1824	Curculionidae	Notable/Nb	Prionemius pusilla Schiodte, 1837	Pompilidae	Local
Strophosoma faber (Herbst, 1784)	Curculionidae	Notable/Nb	Evagetus crassicornis (Shuckard, 1837)	Pompilidae	Local
Sitona humeralis Stephens, 1831	Curculionidae	Local	Evagetus dubius (Vander Linden)	Pompilidae	Notable/Nb
Sitona lineatus (L., 1758)	Curculionidae	Common	Anoplius nigerrimus (Scopoli)	Pompilidae	Local
Sitona puncticollis Stephens, 1831	Curculionidae	Local	Anoplius infuscatus (Vander Linden)	Pompilidae	Local
Sitona striatellus Gyllenhal, 1834	Curculionidae	Common	Anoplius viaticus (Linnaeus, 1758)	Pompilidae	Local
Sitona suturalis Stephens, 1831	Curculionidae	Common	Episyron rufipes (Linnaeus)	Pompilidae	Local
Hypera arator (L., 1758)	Curculionidae	Common	Astata boops (Schrank)	Sphecidae	Local
Trichosirocalus troglodytes (F., 1787)	Curculionidae	Common	Astata pinguis (Dahlbom)	Sphecidae	Local
Ceutorhynchus contractus (Marsham, 1802)	Curculionidae	Common	Trypoxylon clavicerum Lepeletier	Sphecidae	Common
Ceutorhynchus geographicus (Goeze, 1777)	Curculionidae	Notable/Nb	Crossocerus ovalis Lepeletier & Brulle	Sphecidae	Local
Ceutorhynchus marginatus (Paykull, 1792)	Curculionidae	Local	Crossocerus nigritus (Lepeletier & Brulle)	Sphecidae	Local
Ceutorhynchus pyrhorhynchus (Marsham)	Curculionidae	Local	Crossocerus podagricus (Vander Linden)	Sphecidae	Common
Rhinoncus castor (F., 1792)	Curculionidae	Local	Crossocerus quadrimaculatus (Fabricius)	Sphecidae	Common
Gymnetron antirrhini (Paykull, 1800)	Curculionidae	Common	Ectemnius cephalotes (Olivier)	Sphecidae	Common
Gymnetron pascuorum (Gyllenhal, 1813)	Curculionidae	Common	Oxybelus argentatus Curtis	Sphecidae	Na
Rhamphus pulicarius (Herbst, 1795)	Curculionidae	Common	Oxybelus mandibularis Dahlbom	Sphecidae	Na
<b>Lepidoptera</b>			Oxybelus uniglumis (Linnaeus)	Sphecidae	Common
Thymelicus sylvestris Poda	Hesperiidae	Common	Spilomena beata Bluthgen	Sphecidae	Common
Thymelicus lineola Ochsenheimer	Hesperiidae	Local	Pemphredon lugubris (Fabricius)	Sphecidae	Common
Lycaena phlaeas Linnaeus	Lycaenidae	Common	Ammophila sabulosa (Linnaeus)	Sphecidae	Local
Aricia agestis	Lycaenidae	Local	Mellinus arvensis (Linnaeus)	Sphecidae	Common
Polyommatus icarus	Lycaenidae	Common	Cerceris arenaria (Linnaeus)	Sphecidae	Common
Inachis io Linnaeus	Nymphalidae	Common	Cerceris quinquefasciata (Rossius)	Sphecidae	RDB3
Lasionmata megera Linnaeus	Satyridae	Common	Philanthus triangulum (Fabricius)	Sphecidae	RDB2
Hipparchia semele Linnaeus	Satyridae	Local	Colletes fodiens (Geoffroy)	Colletidae	Common
Pyronia tithonus Linnaeus	Satyridae	Common	Colletes marginatus Smith F.	Colletidae	Na
Maniola jurtina L.	Satyridae	Common	Colletes similis Schenck	Colletidae	Local
Semiothisa clathrata (Linnaeus, 1758)	Geometridae	Common	Hylaeus signatus (Panzer)	Colletidae	Notable/Nb
Tyria jacobaeae (Linnaeus, 1758)	Arctiidae	Common	Hylaeus hyalinatus Smith, F.	Colletidae	Local
Autographa gamma (Linnaeus, 1758)	Noctuidae	Common	Andrena bicolor Fabricius	Andrenidae	Common
<b>Diptera</b>			Andrena hattorfiana (Fabricius)	Andrenidae	RDB3
Nephrotoma scurra (Meigen)	Tipulidae	Local	Andrena dorsata (Kirby)	Andrenidae	Local
Pachygaster atra (Panzer)	Stratiomyidae	Common	Halictus confusus Bluthgen	Halictidae	RDB3

Halictus tumulorum (Linnaeus)	Halictidae	Common
Lasioglossum lativentris (Schenck)	Halictidae	Unknown
Lasioglossum leucozonium (Schrank)	Halictidae	Common
Lasioglossum brevicorne (Schenck)	Halictidae	RDB3
Lasioglossum minutissimum (Kirby)	Halictidae	Common
Lasioglossum parvulum (Schenck)	Halictidae	Common
Lasioglossum punctatissimum (Schenck)	Halictidae	Local
Lasioglossum villosulum (Kirby)	Halictidae	Common
Lasioglossum leucopum (Kirby)	Halictidae	Local
Sphcodes puncticeps Thomson	Halictidae	Unknown
Melitta haemorrhoidalis (Fabricius)	Melittidae	Local
Melitta tricincta (Kirby)	Melittidae	Notable/Nb
Dasygaster alterator (Harris)	Melittidae	Notable/Nb
Anthidium manicatum (Linnaeus)	Megachilidae	Common
Megachile centuncularis (Linnaeus)	Megachilidae	Local
Megachile leachella Curtis	Megachilidae	Notable/Nb
Megachile willughbiella (Kirby)	Megachilidae	Common
Megachile maritima (Kirby)	Megachilidae	Unknown
Epeolus cruciger (Panzer)	Anthophoridae	Local
Epeolus variegatus (Linnaeus)	Anthophoridae	Local
Bombus lucorum Linnaeus	Apidae	Common
Bombus terrestris (Linnaeus)	Apidae	Common
Bombus lapidarius (Linnaeus)	Apidae	Common
Bombus pratorum (Linnaeus)	Apidae	Common
Bombus hortorum (Linnaeus)	Apidae	Common
Bombus pascuorum (Scopoli)	Apidae	Common
Psithyrus barbutellus (Kirby)	Apidae	Common
Psithyrus vestalis (Goefroy)	Apidae	Common
<b>Isopoda</b>		
Armadillidium vulgare (Latreille, 1804)	Armadillidiidae	Common
Porcellio scaber Latreille, 1804	Porcellionidae	Common
<b>Opiliones</b>		
Phalangium opilio Linnaeus, 1758	Phalangidae	Common
<b>Araneae</b>		
Dictyna latens (Fabricius, 1775)	Dictynidae	Local
Zelotes electus (C.L.Koch, 1839)	Gnaphosidae	Local
Trachyzelotes pedestris (C.L.Koch, 1837)	Gnaphosidae	Notable/Nb
Micaria pulicaria (Sundevall, 1832)	Gnaphosidae	Common
Clubiona diversa O.P.-Cambridge, 1862	Clubionidae	Local
Clubiona subtilis L.Koch, 1867	Clubionidae	Local
Cheiracanthium virescens (Sundevall, 1833)	Clubionidae	Local
Salticus scenicus (Clerck, 1757)	Salticidae	Common
Heliophanus flavipes (Hahn, 1832)	Salticidae	Common
Pardosa agricola (Thorell, 1856)	Lycosidae	Local
Pardosa palustris (Linnaeus, 1758)	Lycosidae	Common
Pardosa pullata (Clerck, 1757)	Lycosidae	Common
Pardosa nigriceps (Thorell, 1856)	Lycosidae	Common
Alopecosa pulverulenta (Clerck, 1757)	Lycosidae	Common
Arctosa perita (Latreille, 1799)	Lycosidae	Local
Steatoda albomaculata (Degeer, 1778)	Theridiidae	Notable/Nb
Achaeearanea tepidariorum (C.L.Koch, 1841)	Theridiidae	Synanthropic
Theridion impressum L.Koch, 1881	Theridiidae	Local
Theridion varians Hahn, 1833	Theridiidae	Common
Theridion bimaculatum (Linnaeus, 1767)	Theridiidae	Common
Enoplognatha latimana Hippa & Oksala, 1982	Theridiidae	Local
Enoplognatha thoracica (Hahn, 1833)	Theridiidae	Local
Pachygnatha degeeri Sundevall, 1830	Tetragnathidae	Common
Araniella cucurbitina (Clerck, 1757)	Araneidae	Common
Oedothorax fuscus (Blackwall, 1834)	Linyphiidae	Common
Pelecopsis parallela (Wider, 1834)	Linyphiidae	Local
Erigone dentipalpis (Wider, 1834)	Linyphiidae	Common
Erigone atra Blackwall, 1833	Linyphiidae	Common
Meioneta rurestris (C.L.Koch, 1836)	Linyphiidae	Common
Bathypantes gracilis (Blackwall, 1841)	Linyphiidae	Common
Lepthyphantes tenuis (Blackwall, 1852)	Linyphiidae	Common
Lepthyphantes pallidus (Cambridge, 1871)	Linyphiidae	Local
Lepthyphantes insignis Cambridge, 1913	Linyphiidae	Notable/Nb



## Appendix 5

### Invertebrates Recorded at individual sampling stations at RAF Lakenheath - Sorted Taxonomically

#### Site One TF727813

#### Mollusca

*Candidula intersecta* Helicidae Local Key, Dr R.S.

#### Odonata

*Enallagma cyathigerum* Coenagriidae Common Sheppard, Dr D.A.

#### Orthoptera

*Myrmeleotettix maculatus* Acrididae Common Sheppard, Dr D.A.

*Myrmeleotettix maculatus* Acrididae Common Ball, Dr S.G.

*Chorthippus albomarginatus* Acrididae Local Sheppard, Dr D.A.

*Chorthippus brunneus* Acrididae Common Sheppard, Dr D.A.

#### Dermaptera

*Forficula auricularia* Forficulidae Common Key, Dr R.S.

*Forficula auricularia* Forficulidae Common Sheppard, Dr D.A.

*Forficula auricularia* Forficulidae Common Ball, Dr S.G.

#### Heteroptera

*Sehirus bicolor* Cydnidae Common Key, Dr R.S.

*Aelia acuminata* Pentatomidae Local Key, Dr R.S.

*Dolycoris baccarum* Pentatomidae Common Key, Dr R.S., det Kirby, Dr P.

*Aptus mirmicoides* Nabidae Common Key, Dr R.S., det Kirby, Dr P.

*Orius niger* Cimicidae Common Key, Dr R.S., det Kirby, Dr P.

*Xylocoris galactinus* Cimicidae Common Key, Dr R.S., det Kirby, Dr P.

*Deraeocoris ruber* Miridae Common Key, Dr R.S., det Kirby, Dr P.

*Megalocoleus molliculus* Miridae Common Key, Dr R.S., det Kirby, Dr P.

*Plagiognathus arbustorum* Miridae Common Key, Dr R.S., det Kirby, Dr P.

*Plagiognathus chrysanthemi* Miridae Common Key, Dr R.S., det Kirby, Dr P.

*Campyloneura virgula* Miridae Common Key, Dr R.S., det Kirby, Dr P.

*Halticus luteicollis* Miridae Local Key, Dr R.S., det Kirby, Dr P.

*Lygus rugulipennis* Miridae Common Key, Dr R.S., det Kirby, Dr P.

*Liocoris tripustulatus* Miridae Common Key, Dr R.S., det Kirby, Dr P.

*Orthops campestris* Miridae Common Key, Dr R.S., det Kirby, Dr P.

*Calocoris norvegicus* Miridae Common Key, Dr R.S., det Kirby, Dr P.

*Adelphocoris lineolatus* Miridae Common Key, Dr R.S., det Kirby, Dr P.

*Phytocoris varipes* Miridae Common Key, Dr R.S., det Kirby, Dr P.

#### Homoptera

*Megophthalmus scabripennis* Cicadellidae Common Key, Dr R.S., det Kirby, Dr P.

*Agallia venosa* Cicadellidae Common Key, Dr R.S., det Kirby, Dr P.

*Aphrodes albifrons* Cicadellidae Common Key, Dr R.S., det Kirby, Dr P.

*Aphrodes makarovi* Cicadellidae Common Key, Dr R.S., det Kirby, Dr P.

*Diplocolenus abdominalis* Cicadellidae Common Key, Dr R.S., det Kirby, Dr P.

*Psammotettix cephalotes* Cicadellidae Common Key, Dr R.S., det Kirby, Dr P.

*Euscelis incisus* Cicadellidae Common Key, Dr R.S., det Kirby, Dr P.

*Thamnotettix dilutior* Cicadellidae Common Key, Dr R.S., det Kirby, Dr P.

*Dicranotropis hamata* Delphacidae Common Key, Dr R.S., det Kirby, Dr P.

*Hyledelphax elegantulus* Delphacidae Common Key, Dr R.S., det Kirby, Dr P.

*Javesella pellucida* Delphacidae Common Key, Dr R.S., det Kirby, Dr P.

*Trichohermes walkeri* Triozidae Common Key, Dr R.S., det Kirby, Dr P.

*Trioza urticae* Triozidae Common Key, Dr R.S., det Kirby, Dr P.

#### Coleoptera

*Bembidion lampros* Carabidae Common Key, Dr R.S.

*Bembidion properans* Carabidae Common Key, Dr R.S.

Calathus cinctus	Carabidae	Local	Key, Dr R.S.
Calathus fuscipes	Carabidae	Common	Key, Dr R.S.
Amara aenea	Carabidae	Common	Key, Dr R.S.
Amara eurynota	Carabidae	Local	Key, Dr R.S.
Amara fulva	Carabidae	Notable/Nb	Key, Dr R.S.
Harpalus rufipes	Carabidae	Common	Key, Dr R.S.
Harpalus affinis	Carabidae	Common	Key, Dr R.S.
Harpalus attenuatus	Carabidae	Local	Key, Dr R.S.
Bradycellus verbasci	Carabidae	Common	Key, Dr R.S.
Paralister purpurascens	Histeridae	Local	Key, Dr R.S.
Leiodes dubia	Leiodidae	Local	Key, Dr R.S.
Ptomaphagus subvillosus	Leiodidae	Common	Key, Dr R.S.
Sciodrepoides fumata	Leiodidae	Common	Key, Dr R.S.
Silpha laevigata	Silphidae	Local	Key, Dr R.S.
Silpha tristis	Silphidae	Local	Key, Dr R.S.
Anotylus tetracarinatus	Staphylinidae	Common	Key, Dr R.S.
Philonthus concinnus	Staphylinidae	Common	Key, Dr R.S.
Philonthus varius	Staphylinidae	Common	Key, Dr R.S.
Platydracus stercorarius	Staphylinidae	Local	Key, Dr R.S.
Ontholestes murinus	Staphylinidae	Common	Key, Dr R.S.
Tachyporus hypnorum	Staphylinidae	Common	Key, Dr R.S.
Tachyporus nitidulus	Staphylinidae	Common	Key, Dr R.S.
Drusilla canaliculata	Staphylinidae	Common	Key, Dr R.S.
Aleochara bipustulata	Staphylinidae	Common	Key, Dr R.S.
Diastictus vulneratus	Scarabaeidae	RDB2	Key, Dr R.S.
Prosternon tessellatum	Elateridae	Local	Sheppard, Dr D.A., det Key, Dr R.S.
Rhagonycha fulva	Cantharidae	Common	Key, Dr R.S.
Anthrenus verbasci	Dermestidae	Common	Key, Dr R.S.
Brachypterus glaber	Nitidulidae	Common	Key, Dr R.S.
Meligethes aeneus	Nitidulidae	Common	Key, Dr R.S.
Stilbus testaceus	Phalacridae	Common	Key, Dr R.S.
Tytthaspis sedecimpunctatus	Coccinellidae	Local	Key, Dr R.S.
Coccinella septempunctata	Coccinellidae	Common	Sheppard, Dr D.A.
Propylea 14-punctata	Coccinellidae	Common	Key, Dr R.S.
Psyllobora vigintiduopunctata	Coccinellidae	Common	Key, Dr R.S.
Enicmus transversus	Lathridiidae	Common	Key, Dr R.S.
Oedemera lurida	Oedemeridae	Local	Key, Dr R.S.
Anthicus floralis	Anthicidae	Common	Key, Dr R.S.
Cryptocephalus fulvus	Chrysomelidae	Local	Key, Dr R.S.
Gastrophysa polygoni	Chrysomelidae	Common	Key, Dr R.S.
Phyllotreta atra	Chrysomelidae	Local	Key, Dr R.S.
Phyllotreta undulata	Chrysomelidae	Common	Key, Dr R.S.
Aphthona euphorbiae	Chrysomelidae	Local	Key, Dr R.S.
Crepidodera ferruginea	Chrysomelidae	Common	Key, Dr R.S.
Chaetocnema hortensis	Chrysomelidae	Common	Key, Dr R.S.
Sphaeroderma testaceum	Chrysomelidae	Common	Key, Dr R.S.
Otiorhynchus ovatus	Curculionidae	Local	Key, Dr R.S.
Trachyploeus spinimanus	Curculionidae	Notable/Nb	Key, Dr R.S.
Strophosoma faber	Curculionidae	Notable/Nb	Key, Dr R.S.
<b>Lepidoptera</b>			
Lasiommata megera	Satyridae	Common	Key, Dr R.S.
Pyronia tithonus	Satyridae	Common	Key, Dr R.S.
Pyronia tithonus	Satyridae	Common	Ball, Dr S.G.
Maniola jurtina	Satyridae	Common	Key, Dr R.S.
Maniola jurtina	Satyridae	Common	Sheppard, Dr D.A.
Maniola jurtina	Satyridae	Common	Ball, Dr S.G.

**Diptera**

<i>Dysmachus trigonus</i>	Asilidae	Local	Edwards, Dr M.
<i>Epitriptus cingulatus</i>	Asilidae	Local	Edwards, Dr M.
<i>Epitriptus cingulatus</i>	Asilidae	Local	Key, Dr R.S., det Drake, Dr C.M.
<i>Melanostoma mellinum</i>	Syrphidae	Common	Key, Dr R.S., det Drake, Dr C.M.
<i>Episyrphus balteatus</i>	Syrphidae	Common	Ball, Dr S.G.
<i>Eristalis tenax</i>	Syrphidae	Common	Ball, Dr S.G.
<i>Syritta pipiens</i>	Syrphidae	Common	Ball, Dr S.G.
<i>Minettia rivosa</i>	Lauxaniidae	Common	Key, Dr R.S., det Drake, Dr C.M.
<i>Sapromyza quadripunctata</i>	Lauxaniidae		Key, Dr R.S., det Drake, Dr C.M.

**Hymenoptera**

<i>Chrysis helleni</i>	Chrysididae	Notable/Nb	Key, Dr R.S.
<i>Tiphia femorata</i>	Tiphiidae	Local	Edwards, Dr M.
<i>Tiphia femorata</i>	Tiphiidae	Local	Sheppard, Dr D.A.
<i>Myrmosa atra</i>	Tiphiidae	Local	Edwards, Dr M.
<i>Myrmica ruginodis</i>	Formicidae	Common	Sheppard, Dr D.A.
<i>Myrmica sabuleti</i>	Formicidae	Local	Sheppard, Dr D.A.
<i>Lasius niger</i>	Formicidae	Common	Sheppard, Dr D.A.
<i>Evagetes crassicornis</i>	Pompilidae	Local	Sheppard, Dr D.A.
<i>Anoplius nigerrimus</i>	Pompilidae	Local	Edwards, Dr M.
<i>Anoplius viaticus</i>	Pompilidae	Local	Key, Dr R.S.
<i>Astata pinguis</i>	Sphécidae	Local	Edwards, Dr M.
<i>Oxybelus unigulumis</i>	Sphécidae	Common	Edwards, Dr M.
<i>Ammophila sabulosa</i>	Sphécidae	Local	Edwards, Dr M.
<i>Cerceris arenaria</i>	Sphécidae	Common	Edwards, Dr M.
<i>Cerceris arenaria</i>	Sphécidae	Common	Sheppard, Dr D.A.
<i>Colletes fodiens</i>	Colletidae	Common	Edwards, Dr M.
<i>Colletes fodiens</i>	Colletidae	Common	Sheppard, Dr D.A.
<i>Colletes marginatus</i>	Colletidae	Na	Edwards, Dr M.
<i>Colletes marginatus</i>	Colletidae	Na	Sheppard, Dr D.A.
<i>Colletes similis</i>	Colletidae	Local	Edwards, Dr M.
<i>Andrena bicolor</i>	Andrenidae	Common	Edwards, Dr M.
<i>Andrena hattorfiana</i>	Andrenidae	RDB3	Edwards, Dr M.
<i>Andrena dorsata</i>	Andrenidae	Local	Edwards, Dr M.
<i>Lasioglossum lativentris</i>	Halictidae		Sheppard, Dr D.A.
<i>Lasioglossum leucozonium</i>	Halictidae	Common	Sheppard, Dr D.A.
<i>Lasioglossum minutissimu</i>	Halictidae	Common	Sheppard, Dr D.A.
<i>Lasioglossum parvulum</i>	Halictidae	Common	Sheppard, Dr D.A.
<i>Melitta haemorrhoidalis</i>	Melittidae	Local	Edwards, Dr M.
<i>Melitta tricincta</i>	Melittidae	Notable/Nb	Sheppard, Dr D.A.
<i>Megachile maritima</i>	Megachilidae		Edwards, Dr M.
<i>Epeolus cruciger</i>	Anthophoridae	Local	Edwards, Dr M.
<i>Epeolus variegatus</i>	Anthophoridae	Local	Edwards, Dr M.
<i>Bombus lucorum</i>	Apidae	Common	Edwards, Dr M.
<i>Bombus lucorum</i>	Apidae	Common	Sheppard, Dr D.A.
<i>Bombus pratorum</i>	Apidae	Common	Edwards, Dr M.
<i>Bombus pascuorum</i>	Apidae	Common	Edwards, Dr M.

**Isopoda**

<i>Armadillidium vulgare</i>	Armadillidiidae	Common	Procter, Ms D.
<i>Porcellio scaber</i>	Porcellionidae	Common	Procter, Ms D.

**Opiliones**

<i>Phalangium opilio</i>	Phalangidae	Common	Procter, Ms D.
--------------------------	-------------	--------	----------------

**Araneae**

<i>Dictyna latens</i>	Dictynidae	Local	Procter, Ms D.
<i>Pardosa palustris</i>	Lycosidae	Common	Procter, Ms D.
<i>Pardosa pullata</i>	Lycosidae	Common	Procter, Ms D.

<i>Pardosa nigriceps</i>	Lycosidae	Common	Procter, Ms D.
<i>Alopecosa pulverulenta</i>	Lycosidae	Common	Procter, Ms D.
<i>Achaearanea tepidariorum</i>	Theridiidae	Synanthropic	Procter, Ms D.
<i>Theridion varians</i>	Theridiidae	Common	Procter, Ms D.
<i>Enoplognatha thoracica</i>	Theridiidae	Local	Procter, Ms D.
<i>Pachygnatha degeeri</i>	Tetragnathidae	Common	Procter, Ms D.
<i>Araniella cucurbitina</i>	Araneidae	Common	Procter, Ms D.
<i>Erigone dentipalpis</i>	Linyphiidae	Common	Procter, Ms D.
<i>Erigone atra</i>	Linyphiidae	Common	Procter, Ms D.
<i>Meioneta rurestris</i>	Linyphiidae	Common	Procter, Ms D.
<i>Lepthyphantes tenuis</i>	Linyphiidae	Common	Procter, Ms D.
<i>Lepthyphantes pallidus</i>	Linyphiidae	Local	Procter, Ms D.
<i>Lepthyphantes insignis</i>	Linyphiidae	Notable/Nb	Procter, Ms D.

## Invertebrates Recorded at RAF Lakenheath - Sorted Taxonomically

### Site Two TF738823

#### Orthoptera

<i>Myrmeleotettix maculatus</i>	Acrididae	Common	Sheppard, Dr D.A.
<i>Myrmeleotettix maculatus</i>	Acrididae	Common	Ball, Dr S.G.

#### Dermaptera

<i>Forficula auricularia</i>	Forficulidae	Common	Ball, Dr S.G.
------------------------------	--------------	--------	---------------

#### Heteroptera

<i>Nysius thymi</i>	Lygaeidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Peritrechus lundii</i>	Lygaeidae	Local	Key, Dr R.S., det Kirby, Dr P.
<i>Trapezonotus desertus</i>	Lygaeidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Stygnocoris fuliginosus</i>	Lygaeidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Nabis ferus</i>	Nabidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Orius niger</i>	Cimicidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Megalocoleus molliculus</i>	Miridae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Plagiognathus chrysanthemii</i>	Miridae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Lygus rugulipennis</i>	Miridae	Common	Key, Dr R.S., det Kirby, Dr P.

#### Homoptera

<i>Agallia venosa</i>	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Aphrodes makarovi</i>	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Doratura stylata</i>	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Psammotettix confinis</i>	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Psammotettix nodosus</i>	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Rhytistylus proceps</i>	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Euscelis incisus</i>	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Hyledelphax elegantulus</i>	Delphacidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Javesella pellucida</i>	Delphacidae	Common	Key, Dr R.S., det Kirby, Dr P.

#### Coleoptera

<i>Notiophilus aquaticus</i>	Carabidae	Local	Key, Dr R.S.
<i>Calathus ambiguus</i>	Carabidae	Notable/Nb	Key, Dr R.S.
<i>Calathus cinctus</i>	Carabidae	Local	Key, Dr R.S.
<i>Calathus fuscipes</i>	Carabidae	Common	Key, Dr R.S.
<i>Amara aenea</i>	Carabidae	Common	Key, Dr R.S.
<i>Amara bifrons</i>	Carabidae	Local	Key, Dr R.S.
<i>Amara tibialis</i>	Carabidae	Local	Key, Dr R.S.
<i>Harpalus affinis</i>	Carabidae	Common	Key, Dr R.S.
<i>Harpalus anxius</i>	Carabidae	Local	Key, Dr R.S.
<i>Harpalus attenuatus</i>	Carabidae	Local	Key, Dr R.S.
<i>Harpalus rubripes</i>	Carabidae	Local	Key, Dr R.S.

Harpalus tardus	Carabidae	Local	Key, Dr R.S.
Masoreus wetterhalli	Carabidae	Na	Key, Dr R.S.
Metabletus foveatus	Carabidae	Common	Key, Dr R.S.
Kissister minimus	Histeridae	Local	Key, Dr R.S.
Leiodes dubia	Leiodidae	Local	Key, Dr R.S.
Ptomaphagus subvillosus	Leiodidae	Common	Key, Dr R.S.
Silpha laevigata	Silphidae	Local	Sheppard, Dr D.A., det Key, Dr R.S.
Xantholinus longiventris	Staphylinidae	Common	Key, Dr R.S.
Philonthus varius	Staphylinidae	Common	Key, Dr R.S.
Tachyporus hypnorum	Staphylinidae	Common	Key, Dr R.S.
Tachyporus nitidulus	Staphylinidae	Common	Key, Dr R.S.
Olibrus affinis	Phalacridae	Local	Key, Dr R.S.
Coccinella septempunctata	Coccinellidae	Common	Key, Dr R.S.
Crypticus quisquilius	Tenebrionidae	Notable/Nb	Key, Dr R.S.
Crypticus quisquilius	Tenebrionidae	Notable/Nb	Sheppard, Dr D.A., det Key, Dr R.S.
Cteniopus sulphureus	Tenebrionidae	Local	Key, Dr R.S.
Cryptocephalus fulvus	Chrysomelidae	Local	Key, Dr R.S.
Strophosoma faber	Curculionidae	Notable/Nb	Key, Dr R.S.
Sitona humeralis	Curculionidae	Local	Key, Dr R.S.
Sitona suturalis	Curculionidae	Common	Key, Dr R.S.
Ceutorhynchus geographicus	Curculionidae	Notable/Nb	Sheppard, Dr D.A., det Key, Dr R.S.
Ceutorhynchus pyrrhorhynchus	Curculionidae	Local	Key, Dr R.S.
Rhinoncus castor	Curculionidae	Local	Key, Dr R.S.
<b>Lepidoptera</b>			
Lycaena phlaeas	Lycaenidae	Common	Sheppard, Dr D.A.
Polyommatus icarus	Lycaenidae	Common	Ball, Dr S.G.
<b>Diptera</b>			
Dysmachus trigonus	Asilidae	Local	Key, Dr R.S., det Drake, Dr C.M.
Epitriptus cingulatus	Asilidae	Local	Key, Dr R.S., det Drake, Dr C.M.
Eristalis tenax	Syrphidae	Common	Ball, Dr S.G.
Syrirta pipiens	Syrphidae	Common	Ball, Dr S.G.
Scathophaga stercoraria	Scathophagidae	Common	Ball, Dr S.G.
<b>Hymenoptera</b>			
Colletes fodiens	Colletidae	Common	Sheppard, Dr D.A.
Andrena dorsata	Andrenidae	Local	Sheppard, Dr D.A.
Lasioglossum leucopum	Halictidae	Local	Sheppard, Dr D.A.
<b>Opiliones</b>			
Phalangium opilio	Phalangiiidae	Common	Procter, Ms D.
<b>Araneae</b>			
Micaria pulicaria	Gnaphosidae	Common	Procter, Ms D.
Clubiona diversa	Clubionidae	Local	Procter, Ms D.
Cheiracanthium virescens	Clubionidae	Local	Procter, Ms D.
Salticus scenicus	Salticidae	Common	Procter, Ms D.
Heliophanus flavipes	Salticidae	Common	Procter, Ms D.
Pardosa agricola	Lycosidae	Local	Procter, Ms D.
Steatoda albomaculata	Theridiidae	Notable/Nb	Procter, Ms D.
Enoplognatha thoracica	Theridiidae	Local	Procter, Ms D.
Pelecopsis parallela	Linyphiidae	Local	Procter, Ms D.
Erigone dentipalpis	Linyphiidae	Common	Procter, Ms D.
Erigone atra	Linyphiidae	Common	Procter, Ms D.
Meioneta rurestris	Linyphiidae	Common	Procter, Ms D.
Bathyphantes gracilis	Linyphiidae	Common	Procter, Ms D.
Lepthyphantes tenuis	Linyphiidae	Common	Procter, Ms D.



## Invertebrates Recorded at RAF Lakenheath - Sorted Taxonomically

### Site Five TF749825

#### Orthoptera

<i>Stenobothrus lineatus</i>	Acrididae	Local	Sheppard, Dr D.A.
<i>Myrmeleotettix maculatus</i>	Acrididae	Common	Sheppard, Dr D.A.
<i>Myrmeleotettix maculatus</i>	Acrididae	Common	Ball, Dr S.G.
<i>Chorthippus brunneus</i>	Acrididae	Common	Sheppard, Dr D.A.

#### Dermaptera

<i>Forficula auricularia</i>	Forficulidae	Common	Key, Dr R.S.
<i>Forficula auricularia</i>	Forficulidae	Common	Sheppard, Dr D.A.

#### Heteroptera

<i>Odontoscelis lineola</i>	Scutelleridae	Notable/Nb	Key, Dr R.S.
<i>Aelia acuminata</i>	Pentatomidae	Local	Sheppard, Dr D.A.
<i>Dolycoris baccarum</i>	Pentatomidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Syromastus rhombeus</i>	Coreidae	Local	Key, Dr R.S., det Kirby, Dr P.
<i>Alydus calcaratus</i>	Alydidae	Local	Key, Dr R.S., det Kirby, Dr P.
<i>Trapezonotus desertus</i>	Lygaeidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Anthocoris nemorum</i>	Cimicidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Acompocoris pygmaeus</i>	Cimicidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Orius niger</i>	Cimicidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Megalocoleus molliculus</i>	Miridae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Plagiognathus arbustorum</i>	Miridae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Plagiognathus chrysanthemi</i>	Miridae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Chlamydatus pullus</i>	Miridae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Halticus luteicollis</i>	Miridae	Local	Key, Dr R.S., det Kirby, Dr P.
<i>Heterotoma meriopterum</i>	Miridae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Liocoris tripustulatus</i>	Miridae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Orthops campestris</i>	Miridae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Charagochilus gyllenhali</i>	Miridae	Local	Key, Dr R.S., det Kirby, Dr P.
<i>Adelphocoris lineolatus</i>	Miridae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Phytocoris varipes</i>	Miridae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Stenodema calcaratum</i>	Miridae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Stenodema laevigatum</i>	Miridae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Notostira elongata</i>	Miridae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Megaloceraea recticornis</i>	Miridae	Common	Key, Dr R.S., det Kirby, Dr P.

#### Homoptera

<i>Centrotus cornutus</i>	Membracidae	Local	Key, Dr R.S., det Kirby, Dr P.
<i>Gargara genistae</i>	Membracidae	Local	Key, Dr R.S.
<i>lassus lanio</i>	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Agallia venosa</i>	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Aphrodes makarovi</i>	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Doratura stylata</i>	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Euscelis incisus</i>	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Thamnotettix dilutior</i>	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Alebra albostriella</i>	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Dikraneura variata</i>	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Eurhadina pulchella</i>	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Eupteryx florida</i>	Cicadellidae	Local	Key, Dr R.S., det Kirby, Dr P.
<i>Eupteryx melissae</i>	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Eupteryx urticae</i>	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Zyginidia scutellaris</i>	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Javesella pellucida</i>	Delphacidae	Common	Key, Dr R.S., det Kirby, Dr P.

#### Neuroptera

<i>Chrysopa carnea</i>	Chrysopidae	Common	Key, Dr R.S.
------------------------	-------------	--------	--------------

## Coleoptera

<i>Notiophilus germinyi</i>	Carabidae	Local	Key, Dr R.S.
<i>Trechus quadristriatus</i>	Carabidae	Common	Key, Dr R.S.
<i>Calathus ambiguus</i>	Carabidae	Notable/Nb	Key, Dr R.S.
<i>Amara bifrons</i>	Carabidae	Local	Key, Dr R.S.
<i>Amara equestris</i>	Carabidae	Notable/Nb	Key, Dr R.S.
<i>Harpalus attenuatus</i>	Carabidae	Local	Key, Dr R.S.
<i>Harpalus smaragdinus</i>	Carabidae	Notable/Nb	Key, Dr R.S.
<i>Harpalus vernalis</i>	Carabidae	Na	Key, Dr R.S.
<i>Masoreus wetterhalli</i>	Carabidae	Na	Key, Dr R.S.
<i>Metabletus foveatus</i>	Carabidae	Common	Key, Dr R.S.
<i>Paralister purpurascens</i>	Histeridae	Local	Key, Dr R.S.
<i>Ptomaphagus subvillosus</i>	Leiodidae	Common	Key, Dr R.S.
<i>Bledius atricapillus</i>	Staphylinidae	Local	Key, Dr R.S.
<i>Philonthus addendus</i>	Staphylinidae	Local	Key, Dr R.S.
<i>Philonthus tenuicornis</i>	Staphylinidae	Local	Key, Dr R.S.
<i>Ocypus fortunatarum</i>	Staphylinidae	Notable/Nb	Key, Dr R.S.
<i>Tachyporus hypnorum</i>	Staphylinidae	Common	Key, Dr R.S.
<i>Byrrhus fasciatus</i>	Byrrhidae	Common	Key, Dr R.S.
<i>Curimopsis maritima</i>	Byrrhidae	Local	Key, Dr R.S.
<i>Trixagus dermestoides</i>	Throscidae	Local	Key, Dr R.S.
<i>Rhagonycha fulva</i>	Cantharidae	Common	Key, Dr R.S.
<i>Rhagonycha fulva</i>	Cantharidae	Common	Sheppard, Dr D.A.
<i>Brachypterus glaber</i>	Nitidulidae	Common	Key, Dr R.S.
<i>Brachypterosus pulicariu</i>	Nitidulidae	Common	Key, Dr R.S.
<i>Olibrus aeneus</i>	Phalacridae	Common	Key, Dr R.S.
<i>Adalia bipunctata</i>	Coccinellidae	Common	Key, Dr R.S.
<i>Coccinella septempunctata</i>	Coccinellidae	Common	Key, Dr R.S.
<i>Coccinella septempunctata</i>	Coccinellidae	Common	Sheppard, Dr D.A.
<i>Propylea quattuordecimpunctata</i>	Coccinellidae	Common	Sheppard, Dr D.A.
<i>Psyllobora vigintiduopunctata</i>	Coccinellidae	Common	Key, Dr R.S.
<i>Enicmus histrio</i>	Lathridiidae	Key, Dr R.S.	
<i>Orthocerus clavicornis</i>	Colydiidae	Notable/Nb	Key, Dr R.S.
<i>Crypticus quisquilius</i>	Tenebrionidae	Notable/Nb	Key, Dr R.S.
<i>Lagria hirta</i>	Tenebrionidae	Common	Key, Dr R.S.
<i>Cteniopus sulphureus</i>	Tenebrionidae	Local	Key, Dr R.S.
<i>Oedemera lurida</i>	Oedemeridae	Local	Key, Dr R.S.
<i>Oedemera lurida</i>	Oedemeridae	Local	Sheppard, Dr D.A., det Key, Dr R.S.
<i>Leptura livida</i>	Cerambycidae	Local	Key, Dr R.S.
<i>Strangalia melanura</i>	Cerambycidae	Local	Sheppard, Dr D.A., det Key, Dr R.S.
<i>Cryptocephalus fulvus</i>	Chrysomelidae	Local	Key, Dr R.S.
<i>Chrysolina marginata</i>	Chrysomelidae	Na	Key, Dr R.S.
<i>Phyllotreta cruciferae</i>	Chrysomelidae	Notable/Nb	Key, Dr R.S., det Cox, Dr M.C.
<i>Aphthona euphorbiae</i>	Chrysomelidae	Local	Key, Dr R.S.
<i>Longitarsus flavicornis</i>	Chrysomelidae	Common	Key, Dr R.S., det Cox, Dr M.C.
<i>Longitarsus jacobaeae</i>	Chrysomelidae	Common	Key, Dr R.S., det Cox, Dr M.C.
<i>Longitarsus pratensis</i>	Chrysomelidae	Common	Key, Dr R.S., det Cox, Dr M.C.
<i>Longitarsus succineus</i>	Chrysomelidae	Common	Key, Dr R.S., det Cox, Dr M.C.
<i>Pseudapion rufirostre</i>	Apionidae	Common	Key, Dr R.S.
<i>Exapion ulicis</i>	Apionidae	Common	Key, Dr R.S.
<i>Apion haematodes</i>	Apionidae	Common	Key, Dr R.S.
<i>Pirapion immune</i>	Apionidae	Local	Key, Dr R.S.
<i>Strophosoma faber</i>	Curculionidae	Notable/Nb	Key, Dr R.S.
<i>Sitona lineatus</i>	Curculionidae	Common	Key, Dr R.S.
<i>Sitona puncticollis</i>	Curculionidae	Local	Key, Dr R.S.
<i>Sitona suturalis</i>	Curculionidae	Common	Key, Dr R.S.

<i>Trichosirocalus troglodytes</i>	Curculionidae	Common	Key, Dr R.S.
<i>Ceutorhynchus contractus</i>	Curculionidae	Common	Key, Dr R.S.
<i>Ceutorhynchus geographicus</i>	Curculionidae	Notable/Nb	Key, Dr R.S.
<i>Ceutorhynchus marginatus</i>	Curculionidae	Local	Key, Dr R.S.
<i>Gymnetron antirrhini</i>	Curculionidae	Common	Key, Dr R.S.
<i>Gymnetron pascuorum</i>	Curculionidae	Common	Key, Dr R.S.
<i>Rhamphus pulicarius</i>	Curculionidae	Common	Key, Dr R.S.
<b>Lepidoptera</b>			
<i>Thymelicus sylvestris</i>	Hesperiidae	Common	Sheppard, Dr D.A.
<i>Thymelicus sylvestris</i>	Hesperiidae	Common	Ball, Dr S.G.
<i>Thymelicus lineola</i>	Hesperiidae	Local	Ball, Dr S.G.
<i>Lycaena phlaeas</i>	Lycaenidae	Common	Sheppard, Dr D.A.
<i>Aricia agestis</i>	Lycaenidae	Local	Sheppard, Dr D.A.
<i>Polyommatus icarus</i>	Lycaenidae	Common	Sheppard, Dr D.A.
<i>Polyommatus icarus</i>	Lycaenidae	Common	Ball, Dr S.G.
<i>Inachis io</i>	Nymphalidae	Common	Ball, Dr S.G.
<i>Pyronia tithonus</i>	Satyridae	Common	Sheppard, Dr D.A.
<i>Pyronia tithonus</i>	Satyridae	Common	Ball, Dr S.G.
<i>Maniola jurtina</i>	Satyridae	Common	Sheppard, Dr D.A.
<i>Maniola jurtina</i>	Satyridae	Common	Ball, Dr S.G.
<i>Semiothisa clathrata</i>	Geometridae	Common	Sheppard, Dr D.A.
<i>Tyria jacobaeae</i>	Arctiidae	Common	Sheppard, Dr D.A.
<i>Tyria jacobaeae</i>	Arctiidae	Common	Ball, Dr S.G.
<i>Autographa gamma</i>	Noctuidae	Common	Sheppard, Dr D.A.
<b>Diptera</b>			
<i>Nephrotoma scurra</i>	Tipulidae	Local	Key, Dr R.S., det Stubbs, Mr A.E.
<i>Pachygaster atra</i>	Stratiomyidae	Common	Key, Dr R.S., det Drake, Dr C.M.
<i>Chloromyia formosa</i>	Stratiomyidae	Common	Ball, Dr S.G.
<i>Rhagio lineola</i>	Rhagionidae	Common	Key, Dr R.S., det Drake, Dr C.M.
<i>Dysmachus trigonus</i>	Asilidae	Local	Key, Dr R.S., det Drake, Dr C.M.
<i>Dysmachus trigonus</i>	Asilidae	Local	Ball, Dr S.G.
<i>Epitriptus cingulatus</i>	Asilidae	Local	Edwards, Dr M.
<i>Epitriptus cingulatus</i>	Asilidae	Local	Key, Dr R.S., det Drake, Dr C.M.
<i>Eutolmus rufibarbis</i>	Asilidae	pRDB3	Edwards, Dr M.
<i>Eutolmus rufibarbis</i>	Asilidae	pRDB3	Key, Dr R.S., det Drake, Dr C.M.
<i>Machimus atricapillus</i>	Asilidae	Common	Key, Dr R.S., det Drake, Dr C.M.
<i>Thereva nobilitata</i>	Therevidae	Common	Key, Dr R.S., det Drake, Dr C.M.
<i>Phthiria pulicaria</i>	Bombyliidae	Notable/Nb	Key, Dr R.S., det Drake, Dr C.M.
<i>Platypalpus longisetus</i>	Empididae	Common	Key, Dr R.S., det Drake, Dr C.M.
<i>Platypalpus pallidiventris</i>	Empididae	Common	Key, Dr R.S., det Drake, Dr C.M.
<i>Medetera micacea</i>	Dolichopodidae	Local	Key, Dr R.S., det Drake, Dr C.M.
<i>Medetera saxatilis</i>	Dolichopodidae	Local	Key, Dr R.S., det Drake, Dr C.M.
<i>Medetera truncorum</i>	Dolichopodidae	Common	Key, Dr R.S., det Drake, Dr C.M.
<i>Lonchoptera furcata</i>	Lonchopteridae	Common	Key, Dr R.S., det Drake, Dr C.M.
<i>Chrysotoxum bicinctum</i>	Syrphidae	Local	Key, Dr R.S.
<i>Episyrphus balteatus</i>	Syrphidae	Common	Ball, Dr S.G.
<i>Sphaerophoria scripta</i>	Syrphidae	Common	Edwards, Dr M.
<i>Syrpitta pipiens</i>	Syrphidae	Common	Ball, Dr S.G.
<i>Sicus ferrugineus</i>	Conopidae	Local	Edwards, Dr M.
<i>Minettia rivosa</i>	Lauxaniidae	Common	Key, Dr R.S., det Drake, Dr C.M.
<i>Calliopus geniculatum</i>	Lauxaniidae	Local	Key, Dr R.S., det Drake, Dr C.M.
<i>Trixoscelis marginella</i>	Heleomyzidae	Notable/Nb	Key, Dr R.S., det Drake, Dr C.M.
<i>Trixoscelis obscurella</i>	Heleomyzidae	Local	Key, Dr R.S., det Drake, Dr C.M.
<i>Pherbellia cinerella</i>	Sciomyzidae	Common	Key, Dr R.S., det Drake, Dr C.M.
<i>Coremacera marginata</i>	Sciomyzidae	Local	Key, Dr R.S., det Drake, Dr C.M.
<i>Eriothis rufomaculata</i>	Tachinidae	Common	Ball, Dr S.G.

**Hymenoptera**

Brachymera minuta	Chalcididae	Notable/Nb	Key, Dr R.S.
Cratomus megacephalus	Pteromalidae	Local	Key, Dr R.S.
Tiphia femorata	Tiphiidae	Local	Sheppard, Dr D.A.
Myrmosa atra	Tiphiidae	Local	Sheppard, Dr D.A.
Formica fusca	Formicidae	Common	Edwards, Dr M.
Formica fusca	Formicidae	Common	Sheppard, Dr D.A.
Lasius niger	Formicidae	Common	Edwards, Dr M.
Priocnemis pusilla	Pompilidae	Local	Sheppard, Dr D.A.
Evagetes crassicornis	Pompilidae	Local	Sheppard, Dr D.A.
Evagetes dubius	Pompilidae	Notable/Nb	Sheppard, Dr D.A.
Anoplius infuscatus	Pompilidae	Local	Sheppard, Dr D.A.
Episyron rufipes	Pompilidae	Local	Sheppard, Dr D.A.
Astata boops	Sphecidae	Local	Sheppard, Dr D.A.
Astata pinguis	Sphecidae	Local	Edwards, Dr M.
Astata pinguis	Sphecidae	Local	Sheppard, Dr D.A.
Trypoxylon clavicerum	Sphecidae	Common	Sheppard, Dr D.A.
Crossocerus ovalis	Sphecidae	Local	Sheppard, Dr D.A.
Crossocerus nigrinus	Sphecidae	Local	Sheppard, Dr D.A.
Crossocerus podagricus	Sphecidae	Common	Sheppard, Dr D.A.
Crossocerus quadrimaculatus	Sphecidae	Common	Sheppard, Dr D.A.
Ectemnius cephalotes	Sphecidae	Common	Sheppard, Dr D.A.
Oxybelus mandibularis	Sphecidae	Na	Sheppard, Dr D.A.
Oxybelus uniglumis	Sphecidae	Common	Sheppard, Dr D.A.
Spilomena beata	Sphecidae	Common	Sheppard, Dr D.A.
Pemphredon lugubris	Sphecidae	Common	Sheppard, Dr D.A.
Ammophila sabulosa	Sphecidae	Local	Edwards, Dr M.
Ammophila sabulosa	Sphecidae	Local	Sheppard, Dr D.A.
Cerceris arenaria	Sphecidae	Common	Edwards, Dr M.
Cerceris arenaria	Sphecidae	Common	Sheppard, Dr D.A.
Cerceris quinquefasciata	Sphecidae	RDB3	Sheppard, Dr D.A.
Philanthus triangulum	Sphecidae	RDB2	Key, Dr R.S.
Colletes fodiens	Colletidae	Common	Edwards, Dr M.
Colletes fodiens	Colletidae	Common	Sheppard, Dr D.A.
Colletes marginatus	Colletidae	Na	Sheppard, Dr D.A.
Colletes similis	Colletidae	Local	Edwards, Dr M.
Hylaeus signatus	Colletidae	Notable/Nb	Sheppard, Dr D.A.
Hylaeus hyalinatus	Colletidae	Local	Sheppard, Dr D.A.
Halictus confusus	Halictidae	RDB3	Sheppard, Dr D.A.
Lasioglossum leucozonium	Halictidae	Common	Edwards, Dr M.
Lasioglossum brevicorne	Halictidae	RDB3	Sheppard, Dr D.A.
Lasioglossum parvulum	Halictidae	Common	Sheppard, Dr D.A.
Lasioglossum punctatissimum	Halictidae	Local	Edwards, Dr M.
Melitta tricincta	Melittidae	Notable/Nb	Sheppard, Dr D.A.
Dasypoda altercator	Melittidae	Notable/Nb	Edwards, Dr M.
Anthidium manicatum	Megachilidae	Common	Sheppard, Dr D.A.
Megachile centuncularis	Megachilidae	Local	Edwards, Dr M.
Megachile leachella	Megachilidae	Notable/Nb	Sheppard, Dr D.A.
Megachile willughbiella	Megachilidae	Common	Sheppard, Dr D.A.
Megachile maritima	Megachilidae		Edwards, Dr M.
Epeolus variegatus	Anthophoridae	Local	Sheppard, Dr D.A.
Bombus lucorum	Apidae	Common	Edwards, Dr M.
Bombus lapidarius	Apidae	Common	Edwards, Dr M.
Bombus hortorum	Apidae	Common	Sheppard, Dr D.A.
Bombus pascuorum	Apidae	Common	Edwards, Dr M.
Bombus pascuorum	Apidae	Common	Sheppard, Dr D.A.

Psithyrus barbutellus	Apidae	Common	Edwards, Dr M.
<b>Isopoda</b>			
Porcellio scaber	Porcellionidae	Common	Procter, Ms D.
<b>Araneae</b>			
Zelotes electus	Gnaphosidae	Local	Procter, Ms D.
Cheiracanthium virescens	Clubionidae	Local	Procter, Ms D.
Enoplognatha latimana	Theridiidae	Local	Procter, Ms D.

### Invertebrates Recorded at RAF Lakenheath - Sorted Taxonomically

<b>Site Six</b>	TF746820		
<b>Mollusca</b>			
Cepaea nemoralis	Helicidae	Common	Key, Dr R.S.
<b>Heteroptera</b>			
Trapezonotus desertus	Lygaeidae	Common	Key, Dr R.S., det Kirby, Dr P.
Megalocoleus molliculus	Miridae	Common	Key, Dr R.S., det Kirby, Dr P.
Plagiognathus chrysanthemii	Miridae	Common	Key, Dr R.S., det Kirby, Dr P.
<b>Homoptera</b>			
Megophtalmus scabripennis	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.
Agallia venosa	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.
Aphrodes albifrons	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.
Aphrodes histrionicus	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.
Aphrodes makarovi	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.
Doratura stylata	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.
Euscelis incisus	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.
Kelisia sabulicola	Delphacidae	Local	Key, Dr R.S., det Kirby, Dr P.
<b>Coleoptera</b>			
Notiophilus aquaticus	Carabidae	Local	Key, Dr R.S.
Calathus ambiguus	Carabidae	Notable/Nb	Key, Dr R.S.
Calathus erratus	Carabidae	Common	Key, Dr R.S.
Calathus melanocephalus	Carabidae	Common	Key, Dr R.S.
Amara aenea	Carabidae	Common	Key, Dr R.S.
Amara bifrons	Carabidae	Local	Key, Dr R.S.
Amara tibialis	Carabidae	Local	Key, Dr R.S.
Harpalus attenuatus	Carabidae	Local	Key, Dr R.S.
Harpalus servus	Carabidae	Notable/Nb	Key, Dr R.S.
Harpalus vernalis	Carabidae	Na	Key, Dr R.S.
Masoreus wetterhalli	Carabidae	Na	Key, Dr R.S.
Metabletus foveatus	Carabidae	Common	Key, Dr R.S.
Helophorus rufipes	Hydrophilidae	Local	Key, Dr R.S.
Xantholinus longiventris	Staphylinidae	Common	Key, Dr R.S.
Tachyporus pusillus	Staphylinidae	Common	Key, Dr R.S.
Byrrhus pustulatus	Byrrhidae	Local	Key, Dr R.S.
Curimopsis maritima	Byrrhidae	Local	Key, Dr R.S.
Enicmus transversus	Lathridiidae	Common	Key, Dr R.S.
Cryptocephalus fulvus	Chrysomelidae	Local	Key, Dr R.S.
Aphthona euphorbiae	Chrysomelidae	Local	Key, Dr R.S.
Otiorhynchus ligneus	Curculionidae	Common	Key, Dr R.S.
Strophosoma faber	Curculionidae	Notable/Nb	Key, Dr R.S.
Sitona striatellus	Curculionidae	Common	Key, Dr R.S.
<b>Lepidoptera</b>			
Hipparchia semele	Satyridae	Local	Key, Dr R.S.
<b>Diptera</b>			
Dysmachus trigonus	Asilidae	Local	Key, Dr R.S., det Drake, Dr C.M.

<i>Epitriptus cingulatus</i>	Asilidae	Local	Key, Dr R.S., det Drake, Dr C.M.
<i>Machimus atricapillus</i>	Asilidae	Common	Key, Dr R.S., det Drake, Dr C.M.
<b>Hymenoptera</b>			
<i>Brachymera minuta</i>	Chalcididae	Notable/Nb	Key, Dr R.S.
<b>Opiliones</b>			
<i>Phalangium opilio</i>	Phalangiidae	Common	Procter, Ms D.
<b>Araneae</b>			
<i>Clubiona subtilis</i>	Clubionidae	Local	Procter, Ms D.
<i>Pardosa palustris</i>	Lycosidae	Common	Procter, Ms D.
<i>Theridion bimaculatum</i>	Theridiidae	Common	Procter, Ms D.
<i>Pelecopsis parallela</i>	Linyphiidae	Local	Procter, Ms D.
<i>Erigone dentipalpis</i>	Linyphiidae	Common	Procter, Ms D.
<i>Erigone atra</i>	Linyphiidae	Common	Procter, Ms D.
<i>Meioneta rurestris</i>	Linyphiidae	Common	Procter, Ms D.
<i>Lepthyphantes tenuis</i>	Linyphiidae	Common	Procter, Ms D.

## Invertebrates Recorded at RAF Lakenheath - Sorted Taxonomically

### Golf Course TF750811

#### Orthoptera

<i>Omocestus viridulus</i>	Acrididae	Common	Sheppard, Dr D.A.
<i>Myrmeleotettix maculatus</i>	Acrididae	Common	Sheppard, Dr D.A.
<i>Chorthippus parallelus</i>	Acrididae	Common	Sheppard, Dr D.A.

#### Heteroptera

<i>Dolycoris baccarum</i>	Pentatomidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Piezodorus lituratus</i>	Pentatomidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Syromastus rhombeus</i>	Coreidae	Local	Key, Dr R.S., det Kirby, Dr P.
<i>Rhopalus parumpunctatus</i>	Rhopalidae	Local	Key, Dr R.S., det Kirby, Dr P.
<i>Chorosoma schillingi</i>	Rhopalidae	Local	Key, Dr R.S., det Kirby, Dr P.
<i>Nysius thymi</i>	Lygaeidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Graptopeltus lynceus</i>	Lygaeidae	Notable/Nb	Key, Dr R.S., det Kirby, Dr P.
<i>Trapezonotus desertus</i>	Lygaeidae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Neides tipularius</i>	Berytinidae	Local	Key, Dr R.S., det Kirby, Dr P.
<i>Plagiognathus chrysanthemi</i>	Miridae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Chlamydatus pulicarius</i>	Miridae	Notable/Nb	Key, Dr R.S., det Kirby, Dr P.
<i>Chlamydatus pullus</i>	Miridae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Polymerus unifasciatus</i>	Miridae	Local	Key, Dr R.S., det Kirby, Dr P.
<i>Adelphocoris lineolatus</i>	Miridae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Phytocoris varipes</i>	Miridae	Common	Key, Dr R.S., det Kirby, Dr P.
<i>Stenodema calcaratum</i>	Miridae	Common	Key, Dr R.S., det Kirby, Dr P.

#### Homoptera

<i>Gargara genistae</i>	Membracidae	Local	Key, Dr R.S.
<i>Euscelis incisus</i>	Cicadellidae	Common	Key, Dr R.S., det Kirby, Dr P.

#### Coleoptera

<i>Calathus erratus</i>	Carabidae	Common	Key, Dr R.S.
<i>Calathus cinctus</i>	Carabidae	Local	Key, Dr R.S.
<i>Amara fulva</i>	Carabidae	Notable/Nb	Key, Dr R.S.
<i>Harpalus attenuatus</i>	Carabidae	Local	Key, Dr R.S.
<i>Harpalus servus</i>	Carabidae	Notable/Nb	Key, Dr R.S.
<i>Harpalus vernalis</i>	Carabidae	Na	Key, Dr R.S.
<i>Meligethes planiusculus</i>	Nitidulidae	Local	Key, Dr R.S.
<i>Subcoccinella 24-punctata</i>	Coccinellidae	Common	Key, Dr R.S.
<i>Coccinella septempunctata</i>	Coccinellidae	Common	Sheppard, Dr D.A.

<i>Orthocerus clavicornis</i>	Colydiidae	Notable/Nb	Key, Dr R.S.
<i>Cryptocephalus fulvus</i>	Chrysomelidae	Local	Key, Dr R.S.
<i>Phytodecta olivacea</i>	Chrysomelidae	Local	Key, Dr R.S.
<i>Hypera arator</i>	Curculionidae	Common	Key, Dr R.S.
<i>Ceutorhynchus geographicus</i>	Curculionidae	Notable/Nb	Key, Dr R.S.
<b>Lepidoptera</b>			
<i>Thymelicus sylvestris</i>	Hesperiidae	Common	Ball, Dr S.G.
<i>Polyommatus icarus</i>	Lycaenidae	Common	Ball, Dr S.G.
<i>Pyronia tithonus</i>	Satyridae	Common	Ball, Dr S.G.
<i>Maniola jurtina</i>	Satyridae	Common	Sheppard, Dr D.A.
<i>Maniola jurtina</i>	Satyridae	Common	Ball, Dr S.G.
<b>Diptera</b>			
<i>Chloromyia formosa</i>	Stratiomyidae	Common	Ball, Dr S.G.
<i>Dysmachus trigonus</i>	Asilidae	Local	Ball, Dr S.G.
<i>Eutolmus rufibarbis</i>	Asilidae	pRDB3	Edwards, Dr M.
<i>Hybos culiciformis</i>	Empididae	Common	Ball, Dr S.G.
<i>Melanostoma mellinum</i>	Syrphidae	Common	Ball, Dr S.G.
<i>Platycheirus clypeatus</i>	Syrphidae	Common	Ball, Dr S.G.
<i>Paragus haemorrhous</i>	Syrphidae	Local	Ball, Dr S.G.
<i>Episyrphus balteatus</i>	Syrphidae	Common	Sheppard, Dr D.A.
<i>Scaeva pyrastris</i>	Syrphidae	Common	Edwards, Dr M.
<i>Sphaerophoria scripta</i>	Syrphidae	Common	Key, Dr R.S., det Drake, Dr C.M.
<i>Sphaerophoria scripta</i>	Syrphidae	Common	Ball, Dr S.G.
<i>Syrirta pipiens</i>	Syrphidae	Common	Ball, Dr S.G.
<i>Tephritis vespertina</i>	Tephritidae	Common	Key, Dr R.S., det Drake, Dr C.M.
<i>Tephritis vespertina</i>	Tephritidae	Common	Ball, Dr S.G.
<i>Pherbellia cinerella</i>	Sciomyzidae	Common	Ball, Dr S.G.
<i>Limnia unguicornis</i>	Sciomyzidae	Common	Ball, Dr S.G.
<b>Hymenoptera</b>			
<i>Lasius niger</i>	Formicidae	Common	Edwards, Dr M.
<i>Oxybelus argentatus</i>	Sphecidae	Na	Edwards, Dr M.
<i>Mellinus arvensis</i>	Sphecidae	Common	Sheppard, Dr D.A.
<i>Cerceris arenaria</i>	Sphecidae	Common	Edwards, Dr M.
<i>Cerceris arenaria</i>	Sphecidae	Common	Sheppard, Dr D.A.
<i>Colletes fodiens</i>	Colletidae	Common	Sheppard, Dr D.A.
<i>Hylaeus signatus</i>	Colletidae	Notable/Nb	Edwards, Dr M.
<i>Halictus tumulorum</i>	Halictidae	Common	Edwards, Dr M.
<i>Lasioglossum villosulum</i>	Halictidae	Common	Edwards, Dr M.
<i>Sphecodes puncticeps</i>	Halictidae		Edwards, Dr M.
<i>Megachile leachella</i>	Megachilidae	Notable/Nb	Edwards, Dr M.
<i>Megachile maritima</i>	Megachilidae		Edwards, Dr M.
<i>Bombus lucorum</i>	Apidae	Common	Edwards, Dr M.
<i>Bombus terrestris</i>	Apidae	Common	Edwards, Dr M.
<i>Bombus lapidarius</i>	Apidae	Common	Sheppard, Dr D.A.
<i>Bombus pratorum</i>	Apidae	Common	Edwards, Dr M.
<i>Bombus pascuorum</i>	Apidae	Common	Edwards, Dr M.
<i>Psithyrus vestalis</i>	Apidae	Common	Edwards, Dr M.

## APPENDIX 6

### INVERTEBRATE STATUS CATEGORIES

Invertebrates in this report are attributed various status categories, the meaning of which is given below. Criteria for the selection of species into Red Data Book categories one to five follow Shirt (1987) and Bratton (1991), with minor modifications. Criteria for the selection of Nationally Scarce Species follow Eversham (1983). Status categories prefixed with the letter "p" refer to provisional status where the status has been updated in a review of a taxonomic group (eg Hyman & Parsons (1992) but not yet included in an updated Red Data Book.

#### RED DATA BOOK CATEGORY 1. RDB1 - ENDANGERED. (No species in this report)

**Definition.** Taxa in danger of extinction and whose survival is unlikely if the causal factors continue operating.

#### RED DATA BOOK CATEGORY 2. RDB2 - VULNERABLE

**Definition.** Taxa believed likely to move into the Endangered category in the near future if the causal factors continue operating. Included are taxa of which most or all of the populations are decreasing because of over-exploitation, extensive destruction of habitat or other environmental disturbance; taxa with populations that have been seriously depleted and whose ultimate security is not yet assured; and taxa with populations that are still abundant but are under threat from serious adverse factors throughout their range.

**Criteria.** Species declining throughout their range. Species in vulnerable habitats.

#### RED DATA BOOK CATEGORY 3. RDB3 - RARE

**Definition.** Taxa with small populations that are not at present Endangered or Vulnerable, but are at risk. These taxa are usually localised within restricted geographical areas or habitats or are thinly scattered over a more extensive range.

**Criteria.** Species which are estimated to exist in only fifteen or fewer 7post 19708 10 km squares. This criterion may be relaxed where populations are likely to exist in over fifteen 10 km squares but occupy small areas of especially vulnerable habitat.

#### RED DATA BOOK CATEGORY 4. RDB4 - OUT OF DANGER (No species in this report)

#### RED DATA BOOK CATEGORY 5. RDB5 - ENDEMIC (No species in this report)

#### RED DATA BOOK APPENDIX. RDBApp. EXTINCT. (No species in this report)

#### RED DATA BOOK CATEGORY I. RDBI - INDETERMINATE. (No species in this report)

**Definition.** Taxa considered to be Endangered, Vulnerable or Rare, but where there is not enough information to say which of the three categories is appropriate.

#### RED DATA BOOK CATEGORY K. RDBK - INSUFFICIENTLY KNOWN

**Definition.** Taxa that are suspected but not definitely known to belong to any of the above categories, because of lack of information.

**Criteria.** Taxa recently discovered or recognised in Britain which may prove to be more widespread in the future (although some recent discoveries may be placed in other



categories if the group to which they belong is thought not to be under-recorded. Taxa with very few or perhaps only a single known locality but which belong to poorly recorded or taxonomically difficult or unstable groups. Species with very few or perhaps only a single known locality, inhabiting inaccessible or infrequently sampled but widespread habitats. such as some northern moorland species, ones associated with some agricultural situations and ones which are adult only during the winter. Species with very few or perhaps only a single known locality and of questionable native status, but not clearly falling into the category of recent colonist, vagrant or introduction.

#### **NATIONALLY SCARCE (NOTABLE) CATEGORY A - NA**

Taxa which do not fall within RDB categories 1 - 3 but which are none-the-less uncommon in Great Britain and thought to occur in fewer than 30 10 km squares of the National Grid or, for less well recorded groups, within 12 or fewer Vice Counties.

#### **NATIONALLY SCARCE (NOTABLE) CATEGORY B - NB**

Taxa which do not fall within RDB categories 1 - 3 but which are none-the-less uncommon in Great Britain and thought to occur in fewer than 100 10 km squares of the National Grid or, for less well recorded groups, within 20 or fewer Vice Counties.

#### **LOCAL**

The term local is not rigidly defined, but loosely means species confined to a particular habitat type (usually associated with better quality examples of that habitat), a particular geographic area, or species that are too widespread to warrant Notable status but are nevertheless infrequently encountered.

#### **COMMON**

Common, often ubiquitous species, frequently recorded.

#### **SYNANTHROPIC SPECIES**

Species dependent on man, his buildings or crops.

#### **UNKNOWN**

Species within groups so obscure that no status has been attributed to any members of it. As a taxonomic checklist is entered into the Invertebrate Site Register, the status initially defaults to unknown. Certain common or local species may therefore sometimes erroneously appear in this category if there has been no necessity to use the species record before.