



*Provisional atlas of the
longhorn beetles (Coleoptera,
Cerambycidae) of Britain*

P F G Twinn and P T Harding



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INTRODUCTION

Cerambycidae, otherwise known as longhorn beetles or cerambycids, are handsome, relatively large and, in many cases, colourful beetles. About 60 of the estimated 20 000 world species are considered to be native or naturalised in Britain although the true status of some species is rather uncertain. At least 150 additional species have been recorded at some time in Britain as a result of accidental introductions, often in association with imported timber, but have never become established here. A few of our native and naturalised species are sufficiently distinctive to have acquired English names (Hickin 1987) although they are not widely used.

Life history and habits

In common with most insects, cerambycids spend most of their life cycle as immature stages (egg, larva and pupa) which may last two or more years. Most British cerambycids, in their immature stages, are associated with living or dead wood of trees and shrubs. They specialise in a particular part of the plant - from roots to small twigs or dead wood and are known to develop in more than one species of host plant. A few species, notably *Agapanthia villosoviridescens* and *Phytoecia cylindrica*, feed in robust herbaceous plants, especially thistles and umbellifers. Most methods for finding cerambycid larvae can be very destructive of often scarce habitat, such as dead wood, and should be avoided wherever possible.

Although adult cerambycids usually live for only a few weeks, mainly to feed and reproduce, they are often easy to find in favourable conditions. Most species are diurnal and active in warm weather, when they can most readily be found on the flowers of herbaceous plants, such as umbellifers and hawthorn (*Crataegus* spp.) by sweeping or beating. A few species, such as *Prionus coriarius*, are crepuscular and/or nocturnal and will come to artificial light. Because most of the British cerambycids are associated with woody material as larvae, areas with or near trees and shrubs are likely to be the most productive for adults. Oviposition sites vary considerably with the species, including tree bark, cracks in old wood, shattered ends of fallen branches, old larval emergence holes, dead and rotten wood and even in soil.

Origins of the British cerambycid fauna

By virtue of its geographical position, Britain is on the western edge of the Palaearctic range of many taxa. For most groups of insects, the total number of species recorded as native to Britain is significantly less than that recorded in western parts of continental Europe. In the case of cerambycids this is particularly noticeable: Britain's 62 presumed native species is roughly half the number that occur in northern France (over 110 species) (see Speight 1988). When compared

with that of Britain, the cerambycid fauna of Ireland is even more impoverished, with only 21 presumed native species (Anderson, Nash & O'Connor 1997). Speight (1988) discusses the possible causes of this progressive reduction in the numbers of cerambycid species at the western edges of Europe. He concluded that a range of factors, including the geographic ranges of host plants, climatic conditions and habitat modification and loss, have conspired to limit the number of cerambycid species in Ireland, and, to a lesser extent also in Britain.

Our presumed native cerambycid fauna consists of three major, but overlapping, biogeographic elements:

- a boreo-montane group which occurs mainly in Scandinavia and the major mountain ranges of central Europe (eg *Judolia sexmaculata*);
- a central and southern European group which does not extend into northern Scandinavia (eg *Dinoptera collaris*, *Grammoptera ruficornis*);
- a mainly western and southern European group (eg *Anoplodera fulva*).

There is no representative in Britain of a distinctive southern European or Mediterranean group. Perhaps the most unusual species to occur in Britain is the latest addition to our cerambycid fauna, *Tetrops starkii*, which, according to Bense (1995) otherwise occurs no further west than western Germany, but it may have been overlooked until recently.

A few species have become established in Britain as the result of accidental introduction, the most extreme example being the highly polyphagous *Trinophyllum cribratum*. It originated in the Indian sub-continent and, according to Bense (1995), is not known to occur elsewhere in Europe.

Most cerambycids in Britain are associated, in the immature stages, with the trees and shrubs of the original Holocene (post-glacial) forests. Some tree and shrub species did not reach Britain naturally, in particular all the forest conifers, except Scots pine (*Pinus sylvestris*), and not unexpectedly their associated faunas are absent from, or poorly represented in, Britain. With the fragmentation and modification of the natural forests, over a period of some 10 000 years, the present-day occurrence of many cerambycids in Britain may be the result of a range of factors. For example:

- the geographical range achieved by species before humans began large-scale forest clearance and modification;
- continuity of habitat availability;
- degree of host plant specificity;
- dispersal ability (both natural and assisted by humans).

This *Atlas* will contribute to increased understanding of the occurrence of the native and naturalised species in Britain.

A declining and threatened group?

Cerambycids, because of their dependence mainly on trees and shrubs, are most

commonly associated with woodlands, and similar areas such as parkland, wooded commons, hedgerows and, to a lesser extent, large suburban gardens. The small number of species associated mainly with Scots pine (*Pinus sylvestris*) are largely found in areas of native Caledonian pine forest, but some have spread into extensive areas of forestry plantations established mostly during the 20th century. A few species associated with other conifers have apparently extended their range in association with this afforestation.

Available information on the Holocene beetle fauna suggests that several species of cerambycids were formerly more widespread. *Cerambyx cerdo* was lost to the British native fauna before entomological recording began and at least five species (see check list below) have apparently been lost during the last 200 years. Early records show that during the 19th and early 20th centuries many species were more widespread than they appear to be at the present time. These apparent losses and declines may be due to many factors, but it is probably not coincidental that there was progressive felling of woodland, and of mature trees in woodland and parkland until at least the second half of the 20th century. Dutch elm disease (*Ophiostoma ulmi* and *O. nova-ulmi*) may have had some effect on the abundance of a few species, but no British Cerambycidae are solely dependent on elms (*Ulmus* spp.).

The most recent review of the status of the presumed native British Cerambycidae (Hyman & Parsons 1992) lists nearly 19% as being nationally threatened (ie Red Data Book status) with a further 41% categorised as 'nationally scarce'. These percentages are considerably higher than for most other groups of invertebrates. Thus it is particularly important to know the distributions of our native cerambycids at the present time. Naturalised species may have the potential to become more widespread and abundant in future; it is, therefore, important to document the distributions of these species also.

Accidentally introduced species

The majority of the many accidentally introduced species which have been recorded at some time in Britain are not covered in this *Atlas*, mainly because they are not part of our native fauna. There is no comprehensive list of such introductions. As most such species are found here in association with imported products such as timber or exotic fruits, or in packing materials, the likelihood of their becoming naturalised is not high. However, four species (see check list below) have apparently become naturalised in Britain and are included here. None of these accidentally introduced species has yet become a commercially important pest species, in a way that some naturalised species in other groups have. *Anoplophora glabripennis*, the Asian longhorn beetle (a native of South-east Asia), is frequently introduced to Britain. There is currently concern that it may be capable of establishing in the wild here and developing into a serious pest of broad-leaved trees (Forestry Commission press release, 1999).

About the Atlas

The main objectives of the *Atlas* are to summarise the distribution information now held at the Biological Records Centre (BRC) as a result of the national Cerambycidae Recording Scheme, and to provide an initial guide to recent British and continental publications which describe the appearance, biology and ecology of British cerambycids.

The *Atlas* summarises the information that has been collated by the recording scheme since it began in 1982. Despite their generally attractive appearance and, in many cases their considerable size, cerambycids (in common with many other groups of beetles) have not been particularly thoroughly recorded; this may be due to three main factors:

- there is no readily available, well illustrated identification guide to the British species, either as adults or larvae, although there is a wealth of older British and recent continental literature;
- adult cerambycids are seasonal and larvae are difficult to find and are rarely collected;
- adult cerambycids do not usually occur in large numbers, either as individuals at any one time, or as several species at any one site.

Few recorders go out specifically to collect or record cerambycids; most records have resulted from collections or observations made whilst collecting or recording other beetles or other groups of insects, or from casual observations of particularly distinctive species.

The records have come from many sources, of which the most important are museum collections and their curators, local natural history and entomological societies, publicly funded bodies, specially commissioned environmental surveys, entomological journals and, above all, the records and collections of private field workers. A list of the museum collections and journals covered is included as Appendix 1.

Species covered by the scheme

An intention of the recording scheme was to receive records of all species of cerambycids found in Britain, irrespective of whether they were native, naturalised or accidentally introduced. Few records have been contributed of species not listed on the RA45 recording card (see Figure 1) provided for the scheme by the BRC. Few records of species that are not regarded as native or naturalised have been received by the scheme; those that have been received are not sufficiently complete or representative to merit publication at this time.

The RA45 card listed only 59 species, reflecting opinion about the British list of native and naturalised species when the card was prepared in 1981. The RA45 card included *Grammoptera bolomelina* (now synonymised with *G. ruficornis*), one extinct species (*Obrivum cantharinum*) and two introduced species (*Nathrius*

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Figure 1. The RA45 recording card

brevipennis and *Hylotrupes bajulus*). Since 1981, opinions about the status of species have changed, partly as a result of the scheme, but also because of background work on the status of species leading to the publication of *British Red Data Books: 2, Insects* (Shirt 1987) and *A review of the scarce and threatened Coleoptera of Great Britain* (Hyman & Parsons 1992) and also as a result of Uthoff-Kaufmann's 1985–95 series of 21 papers covering almost all the British (and Irish) native and naturalised cerambycids. An additional, presumably native species, *Tetrops starkii*, was added to the British list in 1992.

Limitations of the available data

Unfortunately many records remain unavailable to the scheme because of the lack of resources to extract them from existing collections and publications. It is probable that many of these are old records but they might prove invaluable in tracing the historical occurrence of individual species in Britain.

Validation of records is always a matter of concern. In the case of old published records, the specimens from which the data have been taken may no longer exist, but fortunately in most cases the records have been made by reputable field workers. However, recent experience with *Anoplodera rufa* (see page 22) shows that even apparently reliable records, that have been cited in the literature for a century or more, must be regarded with some degree of caution until such time as a voucher specimen is re-identified to modern standards.

The scheme was not operated to provide an identification service for inexperienced recorders. For most modern records, the problem of which records were likely to be reliable was made easier because most records came from active entomologists of recognised competence. The relative ease with which most species can be identified (given access to the appropriate literature) also aided accuracy of identification. Much effort has been devoted to eliminating unreliable or duplicated data. Despite the difficulties, we are reasonably confident that the inaccuracies are not significant, particularly in the case of the more common species. In the case of the rare or endangered species, any surprising records have been checked as far as possible.

Recording cerambycid larvae

Collecting and identifying (or rearing) larvae is an under-exploited method for recording cerambycids in Britain, though a few of the records summarised here are based on larval material. Guides to the identification of the larvae of most British cerambycids are given in Duffy (1953) and Klausnitzer (1997). The larvae of several species are very distinctive, but most species require microscopic examination. However, collecting cerambycid larvae can be very destructive of damaged, dying and dead wood, which is normally a scarce resource in the British landscape. This habitat is also used by many other nationally threatened insects. For these reasons, considerable restraint should be used in attempting to record

cerambycid larvae. For more information on collecting and rearing larvae see Duffy (1953), Luff (1991) and Lonsdale (1991).

Future cerambycid recording

The collection of data summarised in this *Atlas* has been a lengthy task and the information that is available has many limitations. Vigorous efforts are being made to overcome these and one of the objects of this *Atlas* is to stimulate others to give more attention to these attractive beetles, particularly in those areas where a paucity of records suggests a dearth of entomologists rather than an absence of cerambycids.

The national Cerambycidae Recording Scheme will continue to be organised by Peter Twinn. New records for the Scheme should be sent to him (address below). All other correspondence, such as requests for data, recording cards or information about other recording schemes, should be sent to the Biological Records Centre (address inside front cover).

Dr P F G Twinn
Cerambycidae Recording Scheme
Upper Woodlands
Llanover
Abergavenny
Monmouthshire
NP7 9EP

NOMENCLATURE AND STATUS OF BRITISH CERAMBYCIDAE

The most recent check list of British Coleoptera (Pope 1977) includes all but one of the species now considered to be 'native' to Britain. One species (*Tetrops starkii* Chevrolat) has been added since that publication (Harrison 1992, Welch 1998a, b).

Pope's (1977) revision of the original list by Kloet and Hincks (1945) took a generally conservative approach to systematic and nomenclatural changes that had been published elsewhere in the world at that time. The group of taxa, known as 'longhorn beetles' in Britain, seems to have been subjected to more than their fair share of attention from systematic and nomenclatural revisionists, both elsewhere in Europe and more widely, in recent decades. Some of these nomenclatural changes have begun to find their way into the British literature (eg Hodge & Jones 1995), and two recently published, English language identification guides (Bílý & Mehl 1989, Bense 1995) adopt many changes at generic and higher levels.

As a new check list of British Coleoptera is planned, it has been considered premature to publish a fully revised British check list solely for longhorn beetles. Thus, the nomenclature adopted by Pope (1977) has been followed here, with a few key changes that are now generally accepted internationally. We are very grateful to Dr R G Booth of CABI BIOSCIENCE, London for advice on these preferred changes. The following check list is deliberately styled as *interim*. It is expected that the publications by Bílý and Mehl (1989) and Bense (1995) will be used by British coleopterists; cross-reference to the nomenclature used in these publications is comparatively simple as both publications are well indexed. The check list excludes the increasing number of accidentally introduced species that have not become established in Britain.

Interim check list of British longhorn beetles (Coleoptera: Cerambycidae)

***Chrysomeloidea* Cerambycidae**

Prioninae

Prionus Geoffroy 1762
 coriarius (Linnaeus 1758)

Aseminae

Arhopalus Serville 1834
 rusticus (Linnaeus 1758)

- tristis* (Fabricius 1787)
 ferus (Mulsant 1839)
 polonicus (Motschulsky 1845)
Asemum Eschscholtz 1830
 striatum (Linnaeus 1758)
Tetropium Kirby 1837
 castaneum (Linnaeus 1758) [Probable introduction –
 apparently naturalised]
 gabrieli Weise 1905
 crawsbayi Sharp 1905
 fuscum sensu auct. Brit. not (Fabricius 1787)
- Lepturinae**
- Rhagium* Fabricius 1775
 bifasciatum Fabricius 1775
 inquisitor (Linnaeus 1758)
 indagator Fabricius 1787
 mordax (Degeer 1775)
 inquisitor sensu auct. Brit. partim not (Linnaeus 1758)
Stenocorus Geoffroy 1762
 meridianus (Linnaeus 1758)
Dinoptera Mulsant 1863
 collaris (Linnaeus 1758)
Grammoptera Serville 1835
 ruficornis (Fabricius 1781)
 holomelina Pool 1905
 holomelaena auct. Brit. partim (misspelling)
 ustulata (Schaller 1783)
 præeusta (Fabricius 1787)
 abdominalis (Stephens 1831)
 variegata (Germar 1824)
 analis (Herrich-Schäffer in Panzer 1832)
Alosterna Mulsant 1863
 tabacicolor (Degeer 1775)
 tabacicola auct. Brit. partim (misspelling)
Anoplodera Mulsant 1839
 fulva (Degeer 1775)
 livida (Fabricius 1777)
 rubra (Linnaeus 1758)
 sanguinolenta (Linnaeus 1761)
 scutellata (Fabricius 1781)
 sexguttata (Fabricius 1775)
 virens (Linnaeus 1758) [Extinct – 19th century]
Judolia Mulsant 1863
 cerambyciformis (Schrank 1781)

- sexmaculata* (Linnaeus 1758)
Strangalia Serville 1835
attenuata (Linnaeus 1758) [Extinct – 19th century]
Leptura Linnaeus 1758
aurulenta Fabricius 1792
maculata Poda 1761
armata Preyssler 1793
melanura Linnaeus 1758
nigra Linnaeus 1758
quadrifasciata Linnaeus 1758
revestita Linnaeus 1767
- Cerambycinae**
Cerambyx Linnaeus 1758
scopolii Fuessly 1775 [Extinct – 20th century]
scopoli auct.
Trinophylum Bates 1878
cribratum Bates 1878 [Introduction – apparently naturalised]
Gracilia Serville 1834
minuta (Fabricius 1781)
Obrium Dejean 1821
brunneum (Fabricius 1792)
cantharinum (Linnaeus 1767) [Extinct – 20th century]
Nathrius Brèthes 1916
brevipennis (Mulsant 1839) [Introduction – apparently naturalised]
Molorchus Fabricius 1792
minor (Linnaeus 1758)
umbellatarum (von Schreber 1759)
Aromia Serville 1834
moschata (Linnaeus 1758)
Hylotrupes Serville 1834
bajulus (Linnaeus 1758) [Introduction – apparently naturalised]
Callidium Fabricius 1775
violaceum (Linnaeus 1758)
Pyrrhidium Fairmaire 1863
sanguineum (Linnaeus 1758)
Phymatodes Mulsant 1839
alni (Linnaeus 1767)
testaceus (Linnaeus 1758)
variabilis (Linnaeus 1761)
Clytus Laicharting 1784
arietis (Linnaeus 1758)
medioniger Allen 1959
Plagionotus Mulsant 1842
arcuatus (Linnaeus 1758) [Extinct – 19th century]

- Anaglyptus* Mulsant 1839
mysticus (Linnaeus 1758)
- Lamiinae**
- Lamia* Fabricius 1775
textor (Linnaeus 1758)
- Mesosa* Latreille 1829
nebulosa (Fabricius 1781)
nubila (Gmelin in Linnaeus 1789)
- Pogonocherus* Dejean 1821
fasciculatus (Degeer 1775)
hispidulus (Piller & Mitterpacher 1783)
bidentatus Thomson, C.G. 1866
hispidus (Linnaeus 1758)
dentatus (Geoffroy in Fourcroy 1785)
- Leiopus* Serville 1835
nebulosus (Linnaeus 1758)
- Acanthocinus* Dejean 1821
aedilis (Linnaeus 1758)
- Agapanthia* Serville 1835
villosoviridescens (Degeer 1775)
lineatocollis (Donovan 1797)
- Saperda* Fabricius 1775
carcharias (Linnaeus 1758)
populnea (Linnaeus 1758)
scalaris (Linnaeus 1758)
- Oberea* Dejean 1835
oculata (Linnaeus 1758)
- Stenostola* Dejean 1835
dubia (Laicharting 1784)
ferrea sensu auct. not (Schrank 1776)
- Phytoecia* Dejean 1835
cylindrica (Linnaeus 1758)
- Tetrops* Kirby 1826
praeustus (Linnaeus 1758)
praeusta auct.
starkii Chevrolat 1859

Authors have differed in their treatment of cerambycid taxonomy, particularly at the generic level. Table 1 allows comparison of the nomenclature used in this *Atlas* with the nomenclature used in other standard references to the British cerambycid fauna. The table is in check list order, and the names used in Joy (1932), Duffy (1952), Hickin (1963), Pope (1977), Uthoff-Kaufmann (1985–92), Bílý and Mehl (1989) and Bense (1995) are given only where they differ. This table is intended to allow easy cross-referencing among these works.

Table 1. Nomenclatural cross-tabulation between standard references to the British Cerambycidae

Twinn and Harding	Joy (1932)	Duffy (1952)	Hickin (1963)
Chrysomeloidea			
Cerambycidae			
Prioninae			
<i>Prionus coriarius</i>			
Aseminae			
<i>Arhopalus rusticus</i>	<i>Criocephalus rusticus</i>		
<i>Arhopalus tristis</i>	<i>Criocephalus polonicus</i>	<i>Arhopalus ferus</i>	<i>Arhopalus ferus</i>
<i>Asemum striatum</i>			
<i>Tetropium castaneum</i>	not in Joy (1932)	not in Duffy (1952)	
<i>Tetropium gabrieli</i>			
Lepturinae			
<i>Rhagium bifasciatum</i>			
<i>Rhagium inquisitor</i>			
<i>Rhagium mordax</i>			
<i>Stenocorus meridianus</i>	<i>Stenochorus meridianus</i>		
<i>Dinoptera collaris</i>	<i>Acmaeops collaris</i>	<i>Acmaeops collaris</i>	<i>Acmaeops collaris</i>
<i>Grammoptera ruficornis</i> ¹			
<i>Grammoptera ustulata</i>			
<i>Grammoptera abdominalis</i>	<i>Grammoptera variegata</i>	<i>Grammoptera variegata</i>	<i>Grammoptera variegata</i>
<i>Alosterna tabacicolor</i>	<i>Leptura tabacicolor</i>	<i>Alosterna tabacicola</i>	<i>Alosterna tabacicola</i>
<i>Anoplodera fulva</i>	<i>Leptura fulva</i>	<i>Leptura fulva</i>	<i>Leptura fulva</i>
<i>Anoplodera livida</i>	<i>Leptura livida</i>	<i>Leptura livida</i>	<i>Leptura livida</i>
<i>Anoplodera rubra</i>	<i>Leptura rubra</i>	<i>Leptura rubra</i>	<i>Leptura rubra</i>
<i>Anoplodera sanguinolenta</i>	<i>Leptura sanguinolenta</i>	<i>Leptura sanguinolenta</i>	<i>Leptura sanguinolenta</i>
<i>Anoplodera scutellata</i>	<i>Leptura scutellata</i>	<i>Leptura scutellata</i>	<i>Leptura scutellata</i>
<i>Anoplodera sexguttata</i>	<i>Leptura sexguttata</i>	<i>Leptura sexguttata</i>	<i>Leptura sexguttata</i>
<i>Anoplodera virens</i>	not in Joy (1932)	not in Duffy (1952)	not in Hickin (1963)
<i>Judolia cerambyciformis</i>	<i>Pachytodes cerambyciformis</i>		
<i>Judolia sexmaculata</i>	<i>Leptura sexmaculata</i>		
<i>Strangalia attenuata</i>	not in Joy (1932)	not in Duffy (1952)	
<i>Leptura aurulenta</i>		<i>Strangalia aurulenta</i>	<i>Strangalia aurulenta</i>
<i>Leptura maculata</i>		<i>Strangalia maculata</i>	<i>Strangalia maculata</i>
<i>Leptura melanura</i>		<i>Strangalia melanura</i>	<i>Strangalia melanura</i>
<i>Leptura nigra</i>		<i>Strangalia nigra</i>	<i>Strangalia nigra</i>
<i>Leptura quadrifasciata</i>		<i>Strangalia quadrifasciata</i>	<i>Strangalia quadrifasciata</i>
<i>Leptura revestita</i>	not in Joy (1932)	<i>Strangalia revestita</i>	<i>Strangalia revestita</i>
Cerambycinae			
<i>Cerambyx cerdo</i>	not in Joy (1932)		
<i>Cerambyx scopoli</i>	not in Joy (1932)	<i>Cerambyx scopoli</i>	
<i>Trinophylum cribratum</i>	not in Joy (1932)		
<i>Gracilia minuta</i>			
<i>Obrium brunneum</i>	not in Joy (1932)		
<i>Obrium cantharinum</i>			
<i>Nathrius brevipennis</i>	<i>Leptidea brevipennis</i>	<i>Leptideella brevipennis</i>	<i>Leptideella brevipennis</i>
<i>Molorchus minor</i>	<i>Caenoptera minor</i>		
<i>Molorchus umbellatarum</i>	<i>Caenoptera umbellatarum</i>		
<i>Aromia moschata</i>			
<i>Hylotrupes bajulus</i>			
<i>Callidium violaceum</i>			
<i>Pyrrhidium sanguineum</i>		<i>P. sanguinem</i> ²	
<i>Phymatodes alni</i>	<i>Poecilium alni</i>	<i>Poecilium alni</i>	<i>Poecilium alni</i>
<i>Phymatodes lividus</i>			

Continued over page...

*Arhopalus ferus**Acmaeops collaris**Acmaeops collaris**Grammoptera variegata**Grammoptera variegata**Leptura fulva**Leptura fulva*

not in Bily & Mehl (1989)

*Corymbia fulva**Leptura livida**Leptura livida**Pseudalosterna livida**Pseudovadonia livida**Leptura rubra**Leptura rubra**Corymbia rubra**Corymbia rubra**Leptura sanguinolenta**Leptura sanguinolenta**Anastrangalia sanguinolenta**Anastrangalia sanguinolenta**Leptura scutellata**Leptura scutellata**Stictoleptura scutellata**Corymbia scutellata**Leptura sexguttata**Leptura sexguttata*

not in Pope (1977)

*Leptura virens**Lepturobosca virens**Lepturobosca virens**Pachytodes cerambyciformis**Pachytodes cerambyciformis**Strangalia aurulenta**Strangalia aurulenta*

not in Bily & Mehl (1989)

*Strangalia maculata**Strangalia maculata**Rutpela maculata**Strangalia melanura**Strangalia melanura**Stenurella melanura**Stenurella melanura**Strangalia nigra**Strangalia nigra**Stenurella nigra**Stenurella nigra**Strangalia quadrifasciata**Strangalia quadrifasciata**Strangalia revestita**Strangalia revestita**Pedostrangalia revestita**Pedostrangalia revestita**Trinophyllum cribratum**Cerambyx scopoli*

not in Bily & Mehl (1989)

*Glaphyra umbellatarum**Poecilium alni*

not in Pope (1977)

not in Uhthoff-Kaufmann (1985-92)

not in Bily & Mehl (1989)

Twinn and Harding	Joy (1932)	Duffy (1952)	Hickin (1963)
<i>Phymatodes testaceus</i>			
<i>Clytus arietis</i>			
<i>Plagionotus arcuatus</i>			
<i>Anaglyptus mysticus</i>			
Lamiinae			
<i>Lamia textor</i>			
<i>Mesosa nebulosa</i>			
<i>Pogonocherus fasciculatus</i>	<i>Pogonochaerus fasciculatus</i>		
<i>Pogonocherus hispidulus</i>	<i>Pogonochaerus hispidulus</i>		
<i>Pogonocherus hispidus</i>	<i>Pogonochaerus hispidus</i>		
<i>Leiopus nebulosus</i>			
<i>Acanthocinus aedilis</i>			
<i>Agapanthia villosiviridescens</i>			
<i>Saperda carcharias</i>			
<i>Saperda populnea</i>			
<i>Saperda scalaris</i>			
<i>Oberea oculata</i>			
<i>Stenostola dubia</i>	<i>Stenostola ferrea</i>	<i>Stenostola ferrea</i>	<i>Stenostola ferrea</i>
<i>Phytoecia cylindrica</i>			
<i>Tetrops praeustus</i>	<i>Tetrops praeusta</i>	<i>Tetrops praeusta</i>	<i>Tetrops praeusta</i>
<i>Tetrops starkii</i>	not in Joy (1932)	not in Duffy (1952)	not in Hickin (1963)

Aplocnemia nebulosa
Pityphilus fasciculatus

Anaerea carcharias
Compsidia populnea

Stenostola ferrea

Stenostola ferrea

*Stenostola dubia*³

Tetrops praeusta
 not in Pope (1977)

Tetrops praeusta
 not in Uhthoff-Kaufmann (1985-92)

Tetrops praeusta

Tetrops praeusta

¹ In this atlas, *Grammoptera holomelina* Pool 1905 is considered a synonym for *G. ruficornis*. Duffy (1952), Hickin (1963) and Uhthoff-Kaufmann (1989a) include *holomelina* as a variety of *ruficornis*; Joy (1932) and Pope (1977) regarded it as a distinct species.

² Duffy (1952) refers to this species as *P. sanguinem* in the key, but the correct spelling is used in the index.

³ The keys in Bense (1995) apply *Stenostola dubia* in the same sense as this atlas. However, in the text, Bense continues the error of earlier authors by referring to *S. ferrea* as the sole British representative of the genus.

Status

More than 150 species, additional to the above list, have been recorded in the literature as having been seen in Britain. In some cases these records have been based on casual introductions, but ten species have been included in one or other of the British keys or checklists published in the 20th century. The present statuses of some of these species have been clarified in the papers by Uthhoff-Kaufmann and as a result of the preparation of this *Atlas*. Pope (1977) listed seven species with some form of comment on their status. Of these, only *Pyrrhidium sanguineum* is now considered irrefutably to be a native species and is covered in this *Atlas*.

Apparently extinct species

Anoplodera (formerly *Leptura*) *virens*

This species was omitted from the British list by Pope (1977), despite clear evidence by Allen (1968) that authentic 19th century British material exists, from the Forest of Dean. Uthhoff-Kaufmann (1987) supported Allen's case for this to be regarded as a British species which is now extinct. Hyman and Parsons (1992) listed it as extinct.

Cerambyx species

Records of this genus have been confused in the British literature. Allen (1968) resolved the confusion regarding use of the specific epithets *heros*, *cerdo* and *scopolii* by British authors.

Cerambyx cerdo

This species has been recorded twice as a Holocene sub-fossil in the Cambridgeshire fens (Duffy 1968, Harding & Plant 1978). Uthhoff-Kaufmann (1992b) suggested uncertainty about the age of the actual specimens described by these authors, implying that they may not have been contemporaneous with the host trees, which were carbon-dated to between 3600–4000 before the present. In the case of those described by Harding and Plant (1978), found on 6 May 1976, there is clear evidence that mature *C. cerdo* could not have developed within the bog oak as a result of recent infestation. The tree in question had been buried in peat in an arable field until the preceding autumn/winter, when it was revealed by deep ploughing. The field in question was part of the large area of wetlands around the former Ugg and Whittlesey Meres, which were drained in the 19th century.

Somewhat confusingly, Uthhoff-Kaufmann (1992b) made reference to Stephens' early 19th century record of a *Cerambyx* from the Isle of Ely, in text covering *C. cerdo*, whereas Allen (1968) clearly indicated that this record refers to *C. scopolii* (q.v.).

C. cerdo has been known to occur occasionally as an accidental introduction to Britain with timber. Allen (1995) described a possible record of a male *C. cerdo*, based on a colour photograph, from 'Knight Wood Enclosure' in the New Forest on

9 August 1966. Despite the location, Allen dismissed this record as almost certainly another example of an accidental introduction. The inclusion of *C. cerdo* in lists of species for special action or protection under the UK Biodiversity Action Plan process (UK Biodiversity Steering Group 1995) was prompted by this 1966 record.

C. cerdo is listed by Pope (1977) as extinct. Because of the uncertainty about the 1966 New Forest record, it is best to regard *C. cerdo* as having been present in Britain during the Holocene and to have been introduced occasionally with imported timber. It is almost certainly not a recent (ie 20th century) extinction from the British fauna.

Cerambyx scopolii

Listed by Pope (1977) as a British species without comment. Allen (1968) and Uthhoff-Kaufmann (1992b) described 19th century records from the London area, the status of which is somewhat ambiguous. On the evidence of Allen (1968), Stephens' early 19th century record from the Isle of Ely was this species and not *C. cerdo*. The latest record was from Gray's Inn Square, London in 1902 (Fowler & Donisthorpe 1913). It is conceivable that this species was native to Britain and that its range was limited to the south-east, where it survived in the relic woods of the London area into the 19th century. London would have been the warmest part of the country due to the thermal effect of the conurbation. However, it is equally conceivable that it was an introduction with imported timber and that it was able to colonise suitable habitat near to introduction sites. In our opinion it should be regarded as possibly native, but extinct in Britain since 1902 (other than as the result of occasional, accidental introductions).

Obrium cantbarinum

Uthhoff-Kaufmann (1985) reviewed the occurrence of the two species of *Obrium* recorded from Britain. Most records of *O. cantbarinum* were from a restricted area in Hertfordshire and Essex in the first half of the 19th century, but 20th century records were noted from Kent and, most recently, in 1929 from Bovey Tracy, Devon (Perkins 1929). The only reliable record for about 150 years appears to be that from Devon in 1929, which is some 300 km west of its accepted previous range in Britain. Although Pope (1977) did not comment on the status of this species, Shirt (1987) gave it as extinct, and Hyman and Parsons (1992) also presumed it to be extinct. In the absence of any contrary evidence we also conclude that it is extinct in Britain.

Plagionotus arcuatus

Uthhoff-Kaufmann (1992b) and Hyman and Parsons (1992) considered that this species was probably native at some of the sites from which it was recorded in the 19th century, although accidental importations were also suspected. According to W J Bond (cited by Uthhoff-Kaufmann 1992b), it was plentiful at a site in Hainault

Forest, Essex, in the 1830s. No 20th century records have been received by the present scheme. Pope (1977) listed this species as possibly extinct, and Shirt (1987) and Hyman and Parsons (1992) listed it as extinct. It is possible that the species may be found in Britain again, but only as an accidental importation.

Strangalia attenuata

Allen (1957, 1968) and Uthhoff-Kaufmann (1988a) presented evidence that this species occurred in southern England in the 19th century, most notably at Windsor Forest. Windsor is a well surveyed site so that its continued, but undetected, presence there is highly improbable. Pope (1977), Shirt (1987) and Hyman and Parsons (1992) listed it as *Extinct* in Britain. However, Moon (1991) claimed to have found a single specimen at Holmbush Forest, West Sussex in July 1982. The occurrence of this species in Britain was reviewed by Uthhoff-Kaufmann (1995a).

Doubtfully native species

Anoplodera (formerly Leptura) rufa

Pope (1977) listed this species as doubtfully British. Its inclusion on the British list is based on a record of a single male reputed to have been taken in Sussex in 1865. Uthhoff-Kaufmann (1987) implied that this species had no real place on the present British list. Dr R G Booth (pers. comm.) has recently re-examined the original British specimen and re-identified it as *Anoplodera trisignata* (Fairmaire 1852), a species known from southern France and the Iberian peninsula.

Pbymatodes lividus

The occurrence of this species at Reading, Berkshire, breeding in wooden barrel hoops between 1894 and 1905, is well documented (Bouskell 1905, Fowler & Donisthorpe 1913), but the record seems to have been overlooked by subsequent authors. It was certainly an introduced species but seemed to establish a synanthropic breeding colony at one location for at least 10 years.

Tetropium castaneum

Pope (1977) regarded this species as being of doubtful status in Britain but Uthhoff-Kaufmann (1990a) stated that it is firmly established in conifer forests in Scotland. It has been found on several occasions in circumstances that suggest it is now naturalised in Britain.

Species of uncertain taxonomic status

***Grammoptera bolomelina* Pool**

Uthhoff-Kaufmann (1947) regarded this as a valid species, despite reservations about its taxonomic status expressed by Pool (1905), Fowler and Donisthorpe (1913), Henderson (1946) and Allen (1947). Subsequent authors have also regarded this to be a species of doubtful status or have concluded that it is a variety of *G. ruficornis* (Allen 1988, Uthhoff-Kaufmann 1989a, Owen 1993, Hammond 1996). Uthhoff-Kaufmann (1989a) cited Plavilstshikov, who referred to

G. bolomelina as being confined to England, and also observed that it was 'remarkable that no form resembling *bolomelina* has ever been found on the Continent'. Bense (1995) cited Uhthoff-Kaufmann (1989a) in stating that *G. bolomelina* Bates (1905) (sic!) is 'only a variation of *G. ruficornis*'. Hodge and Jones (1995) used the spelling *bolomelaena* in reference to this species, quoting Uhthoff-Kaufmann (1947). Opinion among British coleopterists may still be divided on the taxonomic status of '*Grammoptera bolomelina*', but we have elected to regard it as a variety of *G. ruficornis* and have summarised records of *G. bolomelina* with the data for *G. ruficornis*.

DISTRIBUTION MAPS AND NOTES ON SPECIES

Literature sources

To enable the reader to gain access to relevant publications, a small selection of key works is indexed for each species under four headings. The full reference for each publication indexed in this way is included in the Bibliography. Coverage of the literature is not exhaustive, but includes all the major works that include reference to most species of British Cerambycidae.

Threat status

The threat status of British cerambycids has been reviewed, together with other Coleoptera, by Hyman (1986), Shirt (1987) and Hyman and Parsons (1992). The most up-to-date statement on the status of species is, therefore, Hyman and Parsons (1992), which contains data sheets for all species then considered to be of *Red Data Book* status or to be 'Nationally Notable' (now referred to as 'Nationally Scarce'). Only one species (*Oberea oculata*) is listed for action under the UK Biodiversity Plan (UK Biodiversity Steering Group 1995) and can, therefore, be considered to have some measure of legal protection.

Illustrations and descriptions/keys

Cerambycidae have been the subject of many publications in the British literature, but the most recent complete key to species (Duffy 1952) has been out of print for many years. Hickin (1963) included illustrated keys to most species, but this book is also out of print. Joy (1932) is somewhat unreliable, but some species are illustrated with line drawings. Use of both Joy (1932) and Duffy (1952) should be in conjunction with the notes in Hodge and Jones (1995). Uthhoff-Kaufmann's (1985–1995) series of papers does not include a comprehensive key to species.

Two books in a more popular style contain whole animal portraits of some species: those in Harde (1984) are all colour plates and those in Hickin (1987) are a mixture of black and white line drawings and colour photographs. In addition to this British literature, there are several continental publications that cover many of the British species, of which Bílý and Mehl (1989) and Bense (1995) are in English and have good descriptions and figures, with the former also including colour plates of many species. In this way most species are described and illustrated in at least one English language publication.

There are three good continental keys illustrated with line drawings: Harde (1966) covers the fauna of central Europe and is in German; Villiers (1978) covers the fauna of France and is in French, and Muylaert (1990) covers the Belgian fauna, including distribution maps, and is also in French.

Distribution

Uthhoff-Kaufmann's (1985–1995) series of 21 papers covered all species and summarised a large number of records updating his earlier paper (Uthhoff-Kaufmann 1948) as vice-county records. Dr Uthhoff-Kaufmann was unable to provide access to records that are more detailed than those published in his recent papers. Inevitably, the maps in this *Atlas* omit many records that currently are available only as vice-county records. Uthhoff-Kaufmann's papers probably provide a better *generalised* overview of the occurrence of some species in Britain than this *Atlas*. His papers also include Ireland, which is not covered in this *Atlas*. The greater precision required for most purposes (eg biogeographic research, conservation and planning) means that the continued preparation of vice-county summaries has only limited use.

This section also includes references to the main sources of information about the occurrence of the species in Great Britain, including from the continental literature.

Biology and habitat

The biology and habitats of species were summarised adequately by Hickin (1963) and in the recent papers by Uthhoff-Kaufmann, although much of the information is somewhat anecdotal and may not fully reflect current opinions. Bílý and Mehl (1989) also provided brief accounts of most British species. Larval biology is reviewed at length by Duffy (1953) who also lists recorded host plants. Hyman and Parsons (1992) provided some information on the less common species. We have not repeated information already available in the literature. Such statements that are included are necessarily very generalised and readers are advised to consult the above publications for more details.

Notes on coverage maps

This *Atlas* summarises almost 13 000 records collated by the Recording Scheme since its inception in 1982. The following distribution maps of coverage and individual species summarise these data. The first three maps of coverage show the patchy nature of these data, due to the paucity of records referred to in the Introduction.

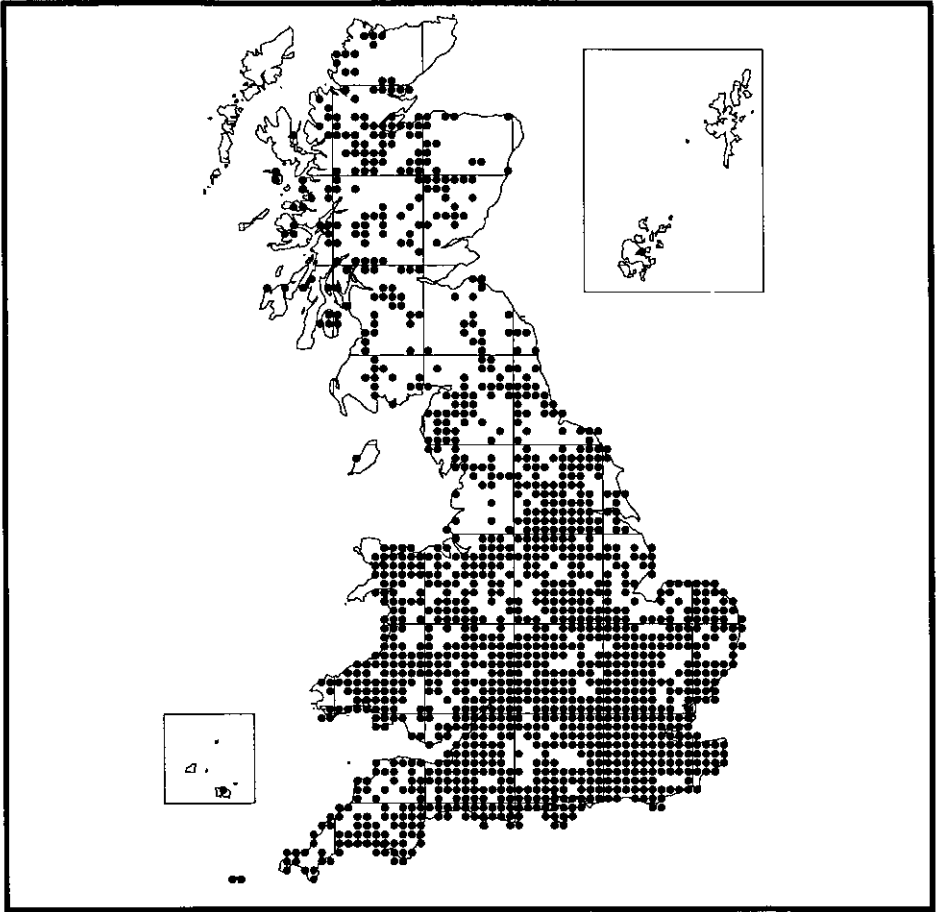
Notes on species distribution maps

Maps 4–63 show the recorded distributions of the individual species. Records are presented for two periods:

- before 1970
- 1970–1998

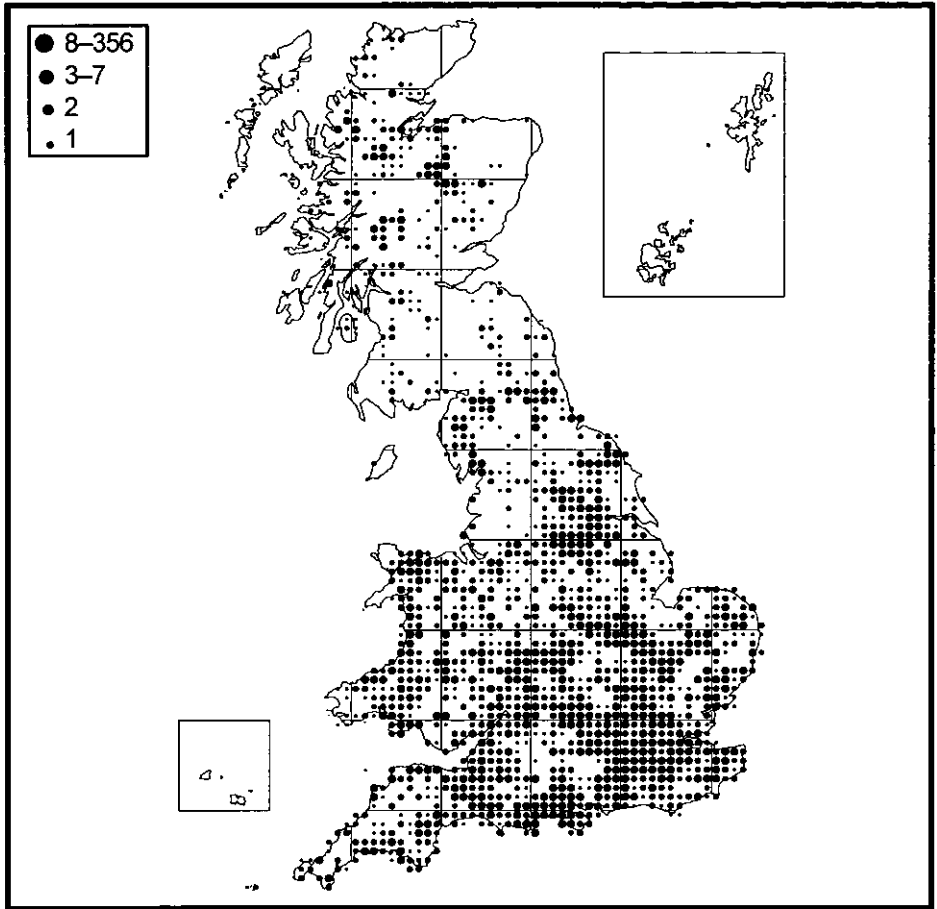
The presence of an open circle does not necessarily mean that the species has declined since 1970. It may indicate that the locality has not been visited or that the species was not looked for. However, the apparent absence of many species in recent years from within their former ranges suggests that these species may have become more difficult to find than was formerly the case.

Map 1 Overall coverage



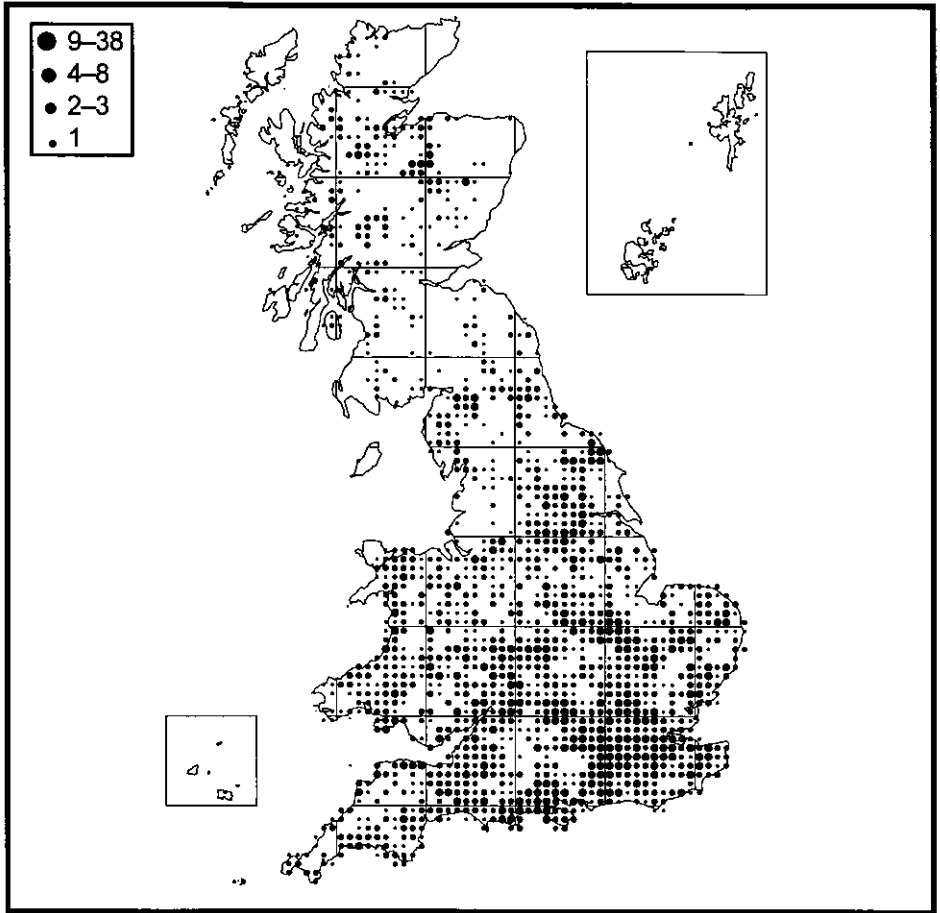
Shows the 10 km squares from which at least one record of a species has been received. This is a highly simplified indication of the geographical areas from which records have been received, which is refined in Map 2 and Map 3.

Map 2 Intensity of recording

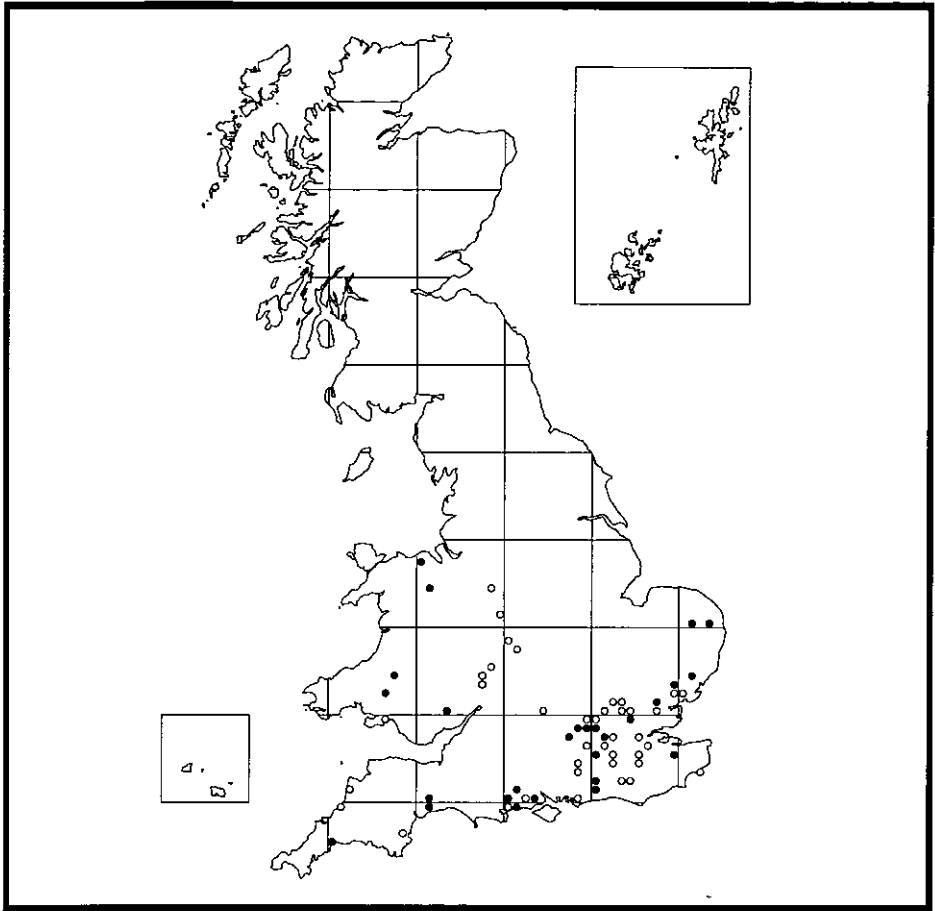


Shows the number of individual records received from each 10 km square. This provides a simplified indication of the intensity of recording effort, which will have been influenced by factors such as geographical remoteness, apparent absence of suitable habitat, and the availability of recorders.

Map 3 Number of species



Shows the total number of species recorded in each 10 km square. The number of species likely to occur in any given 10 km square will vary according to the ranges of individual species and the presence of suitable habitats and host plants. More species could be expected to occur in southern and eastern Britain than in the north and west because of the ecological factors and climatic conditions required by the majority of British species.



Threat status Not listed (Hyman 1986, Shirt 1987)
Notable (Hyman & Parsons 1992)

Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984),
Hickin (1963), Hickin (1987)

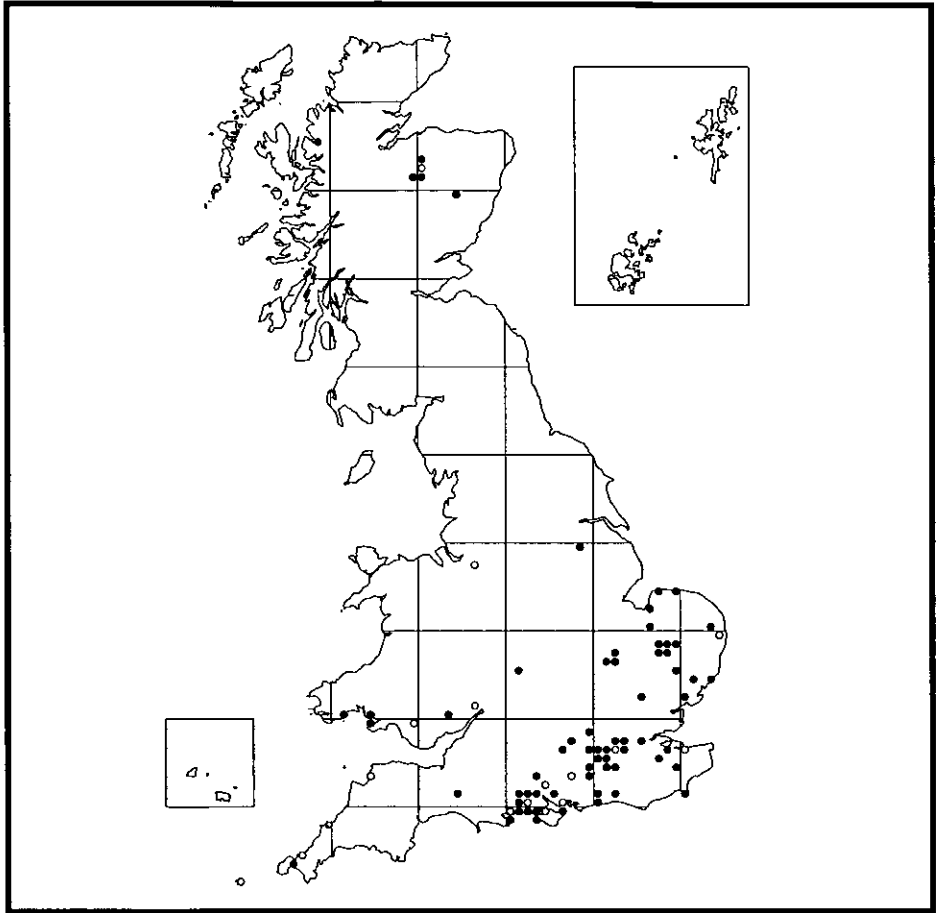
Description/key Bense (1995), Bílý and Mehl (1989), Harde (1984),
Hickin (1963), Uthhoff-Kaufmann (1991a)

Distribution Hyman and Parsons (1992), Uthhoff-Kaufmann (1991a)

Biology and habitat Duffy (1946), Hyman and Parsons (1992), Uthhoff-
Kaufmann (1991a)

Usually found from mid-July to late September. Nocturnal. Inhabits broad-leaved and pasture woodland, particularly associated with oak (*Quercus* spp.), beech (*Fagus sylvatica*) and birch (*Betula* spp.) but also recorded from pine (*Pinus* spp.), willow (*Salix* spp.) and other trees. Larvae feed on the roots of trees.

Map 5 *Arhopalus rusticus* (Linnaeus 1758)



Threat status None

Illustration Bense (1995), Harde (1984)

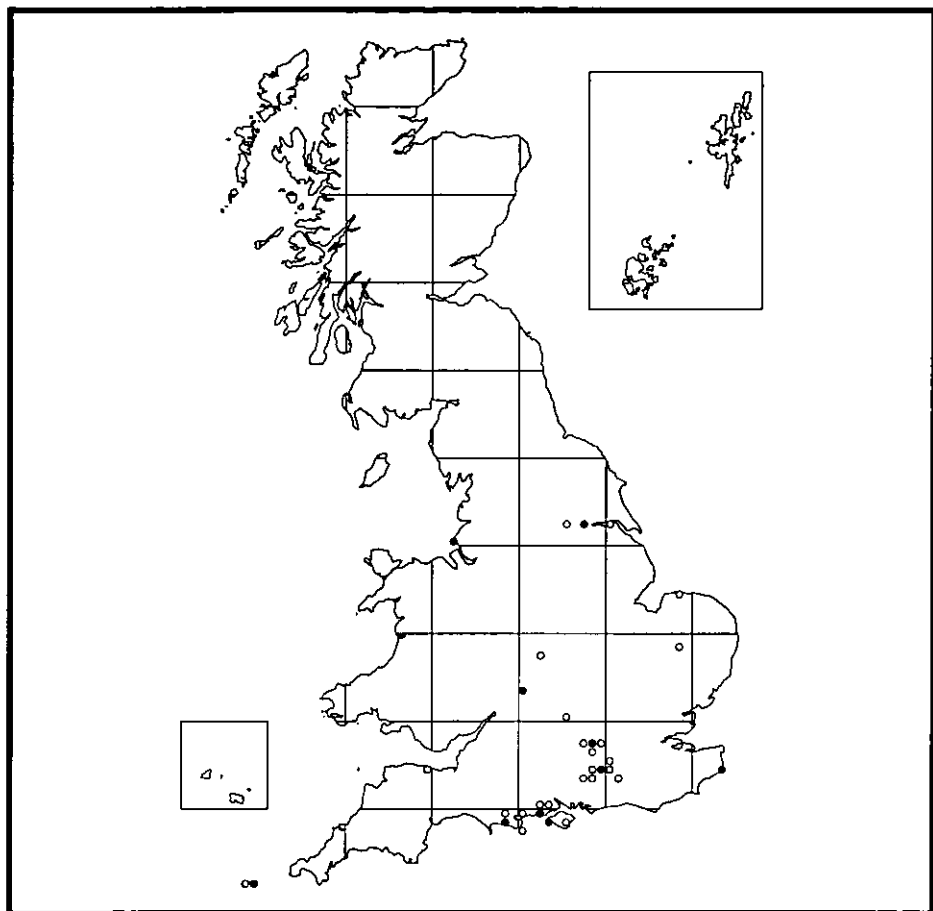
Description/key Bense (1995), Bílý and Mehl (1989), Harde (1984),
Hickin (1963), Uhthoff-Kaufmann (1990a),

Distribution Uhthoff-Kaufmann (1990a)

Biology and habitat Uhthoff-Kaufmann (1990a)

Associated with living or dead conifers. Adults present from May to September. Nocturnal; recorded in mercury vapour light traps (Welch 1994).

Map 6 *Arhopalus tristis* (Fabricius 1787)



Threat status Formerly Notable (Hyman 1986), classification withdrawn (Hyman & Parsons 1992). Not listed (Shirt 1987)

Illustration Bense (1995), Bílý and Mehl (1989), Hickin (1963), Hickin (1987)

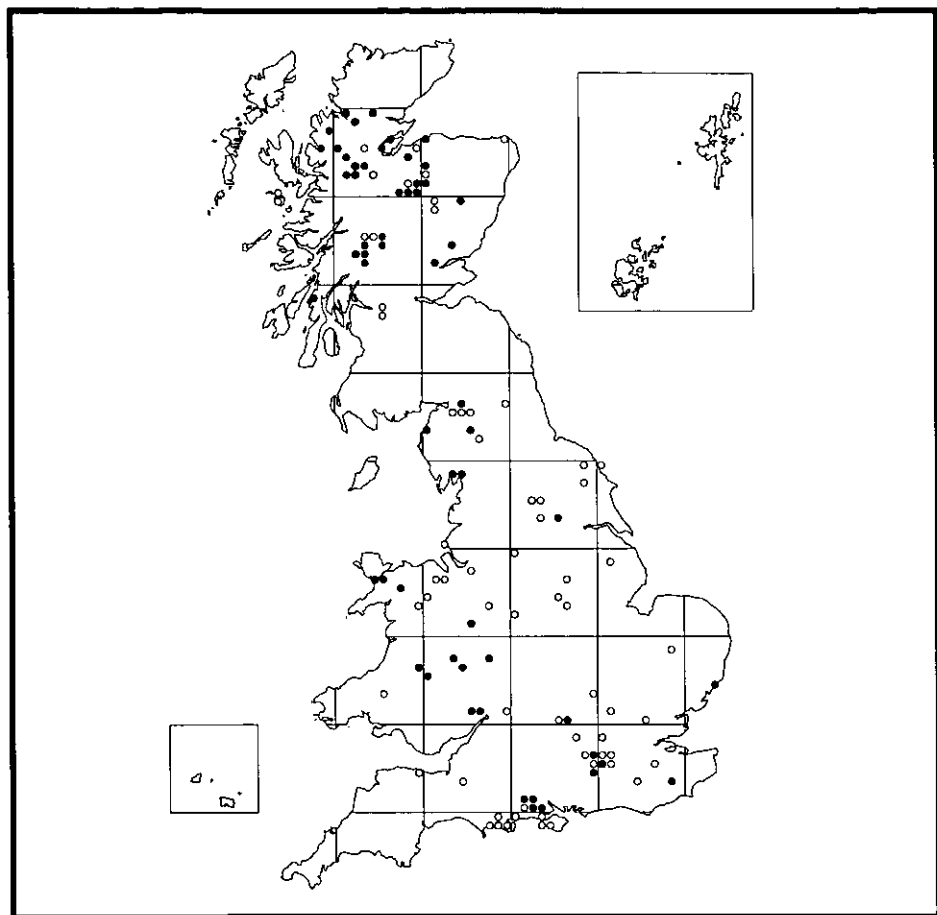
Description/key Bense (1995), Bílý and Mehl (1989), Hickin (1963), Uhthoff-Kaufmann (1990a)

Distribution Uhthoff-Kaufmann (1990a)

Biology and habitat Uhthoff-Kaufmann (1990a)

Associated with living or dead conifers, especially exposed roots and boles. Adults present from July to October/early November. Mainly nocturnal.

Map 7 *Asemum striatum* (Linnaeus 1758)



Threat status None

Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984), Hickin (1963)

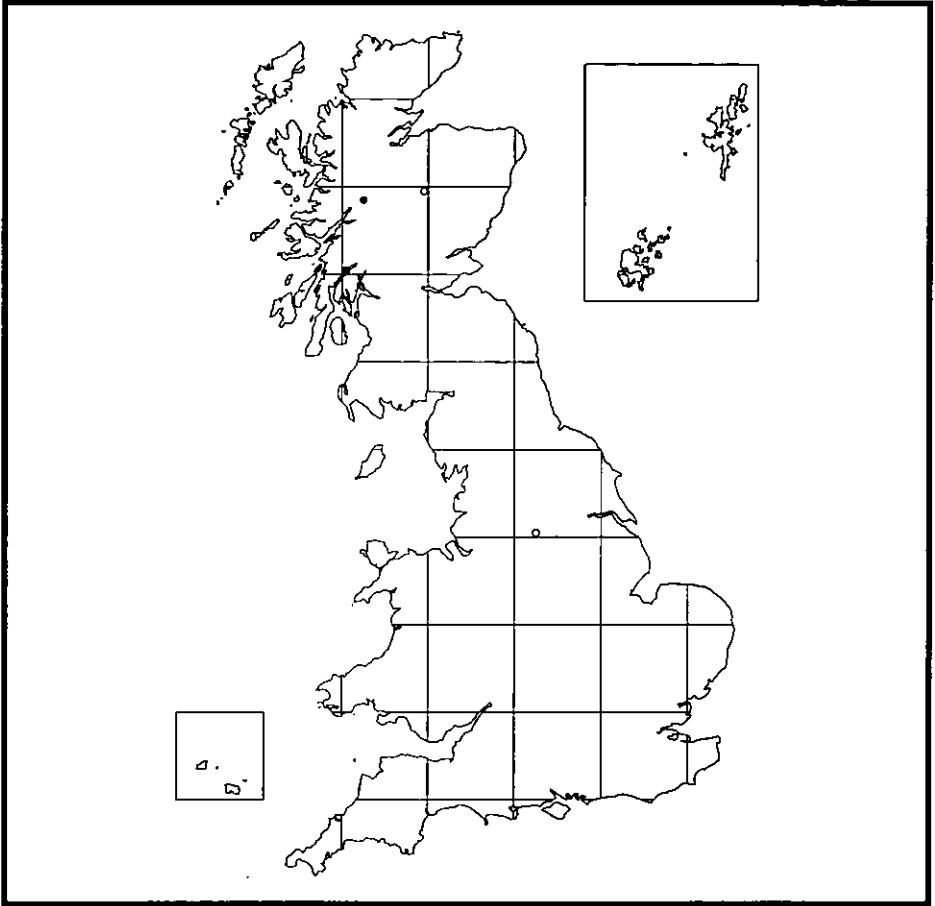
Description/key Bense (1995), Bílý and Mehl (1989), Harde (1984), Hickin (1963), Uhthoff-Kaufmann (1990a)

Distribution Uhthoff-Kaufmann (1990a)

Biology and habitat Uhthoff-Kaufmann (1990a)

Associated mainly with newly-cut or dead conifers, especially stumps and exposed roots. Sometimes found in construction timber. Adults emerge in late May and are present through to September. Mainly crepuscular, but will fly in warm sunlight. Uncommon but probably spreading.

Map 8 *Tetropium castaneum* (Linnaeus 1758)



Threat status Formerly RDB 3 (Hyman 1986, Shirt 1987), classification withdrawn (Hyman & Parsons 1992)

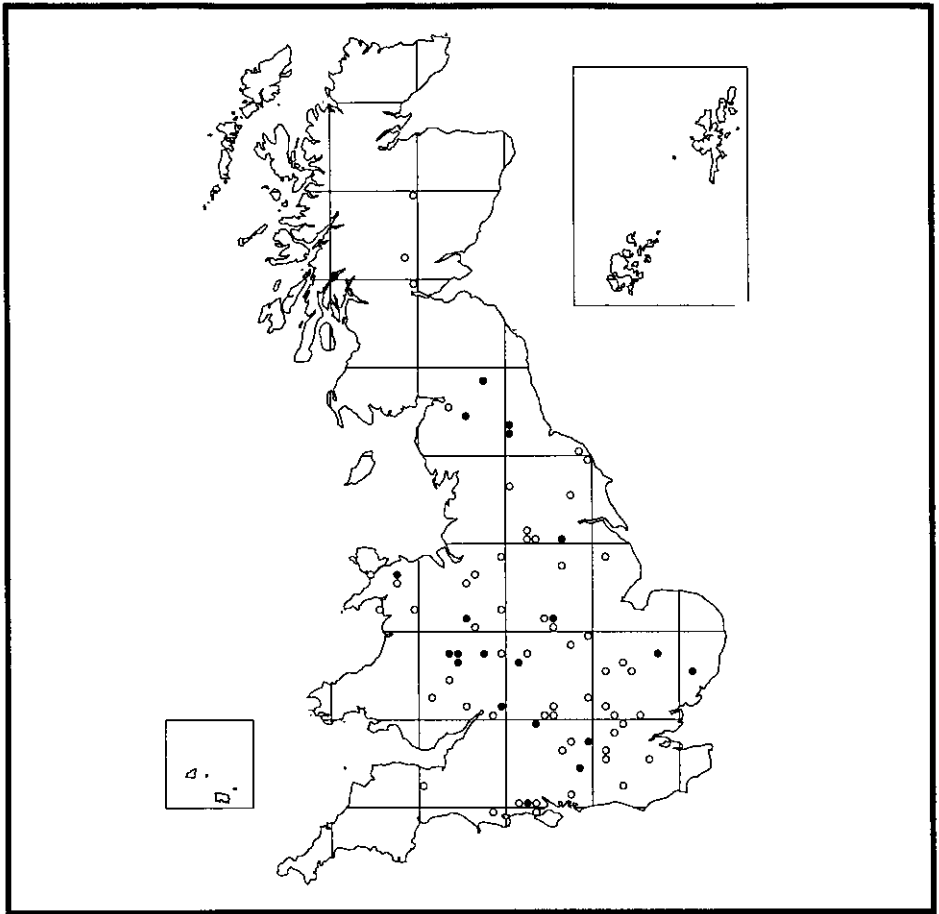
Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984)

Description/key Bense (1995), Bílý and Mehl (1989), Harde (1984), Hickin (1963), Uhthoff-Kaufmann (1990a)

Distribution Uhthoff-Kaufmann (1990a)

Biology and habitat Uhthoff-Kaufmann (1990a),

A significant pest of conifers in continental Europe. Adults occur from May to July.



Threat status None

Illustration Bense (1995), Hickin (1963), Hickin (1967)

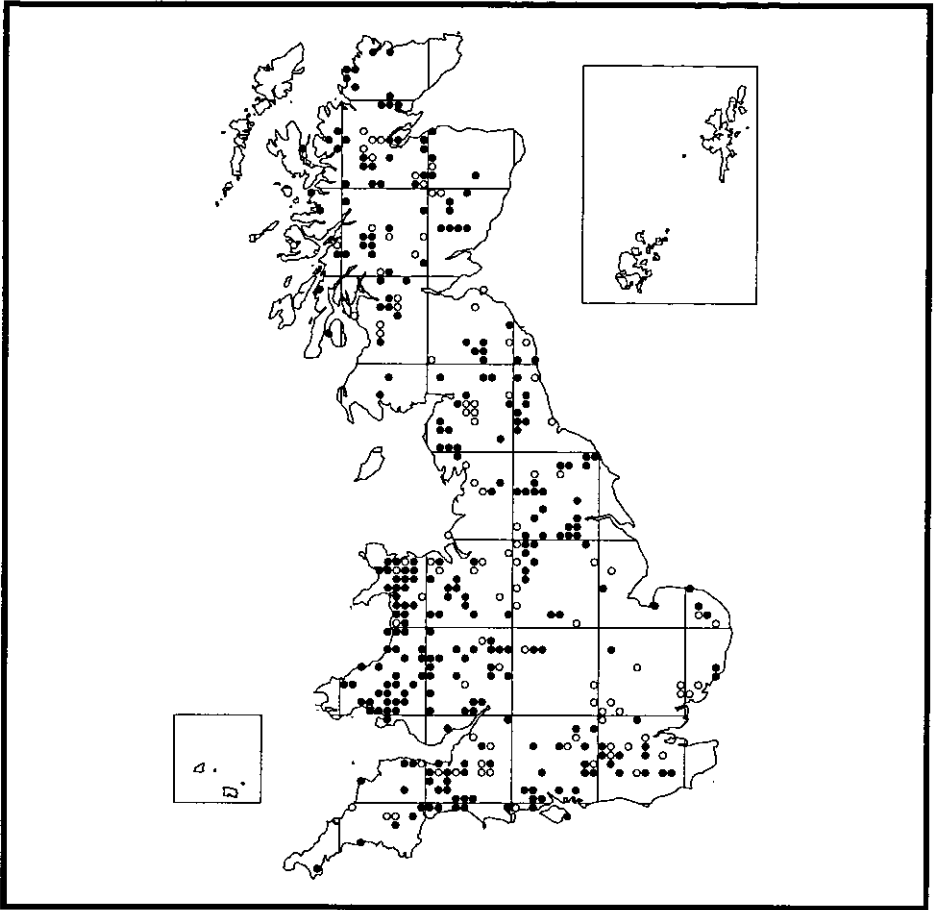
Description/key Bense (1995), Bílý and Mehl (1989), Hickin (1963), Uthhoff-Kaufmann (1990a)

Distribution Uthhoff-Kaufmann (1990a)

Biology and habitat Uthhoff-Kaufmann (1990a),

Associated with conifers, particularly larch (*Larix* spp.), but causing only superficial damage to felled timber. Adults occur throughout the summer, but most commonly in August.

Map 10 *Rhagium bifasciatum* Fabricius 1775



Threat status None

Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984),
Hickin (1963), Linssen (1959)

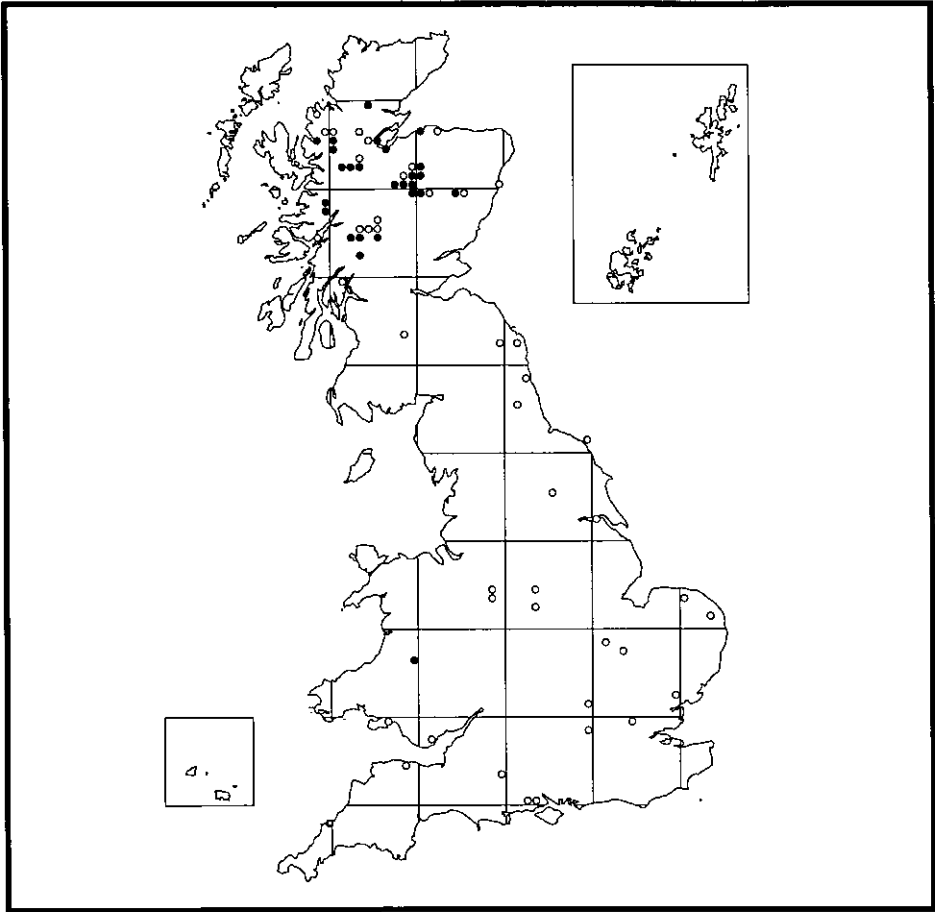
Description/key Bense (1995), Bílý and Mehl (1989), Harde (1984),
Hickin (1963), Uthhoff-Kaufmann (1988b) (varieties of *R.*
bifasciatum), Uthhoff-Kaufmann (1989c)

Distribution Uthhoff-Kaufmann (1988b) (varieties of *R. bifasciatum*),
Uthhoff-Kaufmann (1989c)

Biology and habitat Uthhoff-Kaufmann (1989c)

A polyphagous species found on both conifers and broad-leaved trees, but most commonly on Scots pine (*Pinus sylvestris*). Larvae occur mainly in rotting logs and stumps. Adults emerge from overwintering sites from April onwards.

Map 11 *Rhagium inquisitor* (Linnaeus 1758)



Threat status Notable B (Hyman 1986, Hyman & Parsons 1992). Not listed (Shirt 1987)

Illustration Bense (1995), Harde (1984), Hickin (1963), Hickin (1987), Linssen (1959)

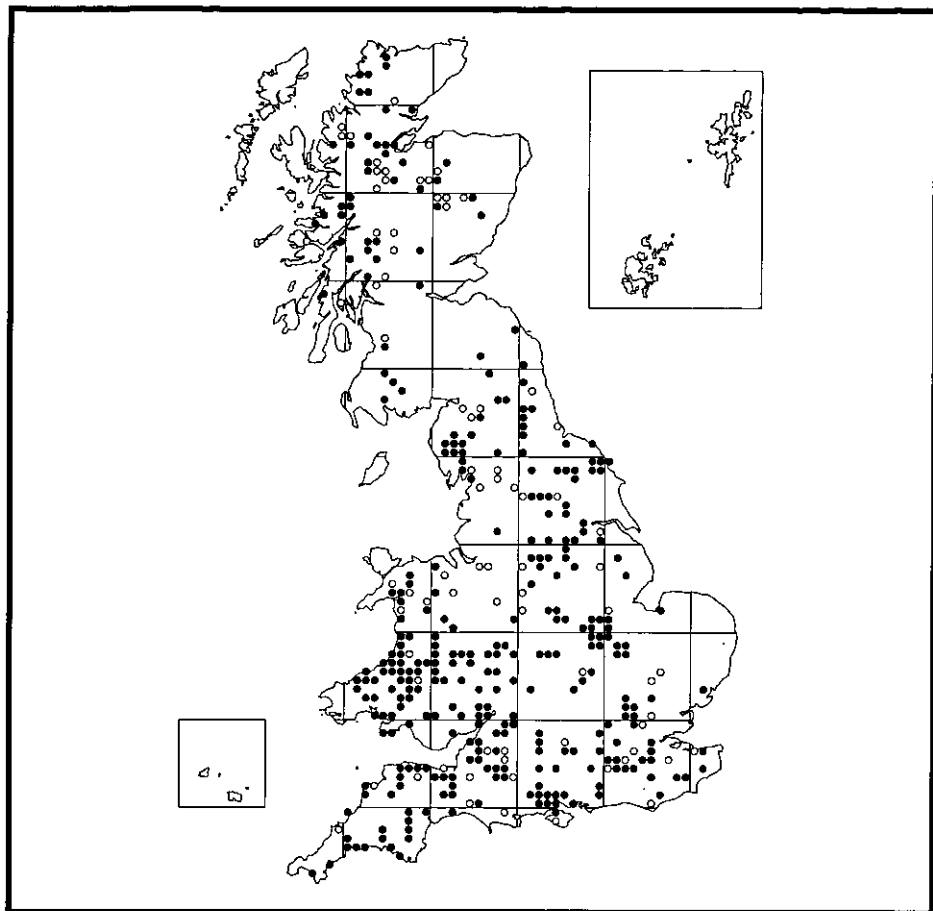
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963), Hickin (1987)

Distribution Bílý and Mehl (1989), Hickin (1963), Hickin (1987), Hyman and Parsons (1992), Uthhoff-Kaufmann (1989c)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987), Hyman and Parsons (1992), Uthhoff-Kaufmann (1989c)

A woodland species, particularly associated with dead Scots pine (*Pinus sylvestris*). Adults occur from June to August. Records from outside Scotland are considered to be introductions.

Map 12 *Rhagium mordax* (Degeer 1775)



Threat status None

Illustration Bense (1995), Bílý and Mehl (1989), Duffy (1952), Harde (1984), Hickin (1963), Linssen (1959)

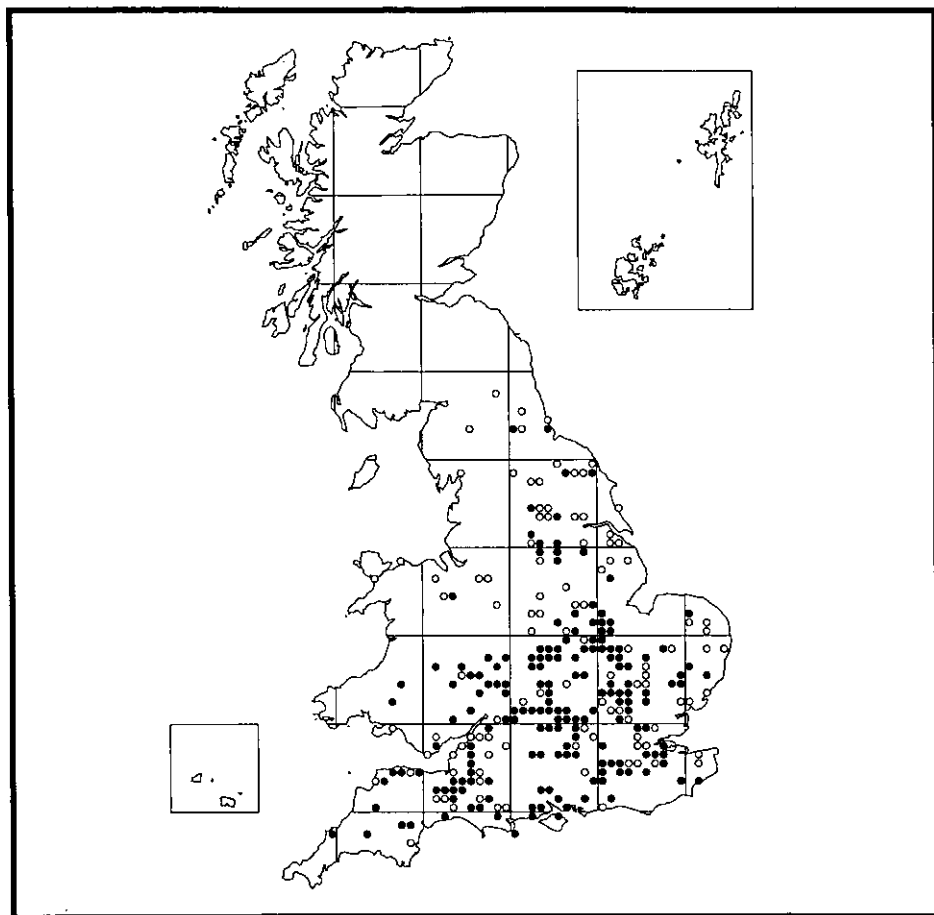
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963), Hickin (1987), Uthhoff-Kaufmann (1989c) (v. *morvandicum*)

Distribution Bílý and Mehl (1989), Uthhoff-Kaufmann (1989c)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987), Uthhoff-Kaufmann (1989c)

Occurs in wooded areas, where it is particularly associated with oak (*Quercus* spp.). Adults emerge from their pupae from August onwards but remain in the pupal cells until the following spring. Thereafter they are active throughout the warmer months.

Map 13 *Stenocorus meridianus* (Linnaeus 1758)



Threat status None

Illustration Bense (1995), Bílý and Mehl (1989), Duffy (1952), Harde (1984), Hickin (1963), Hickin (1987), Linszen (1959)

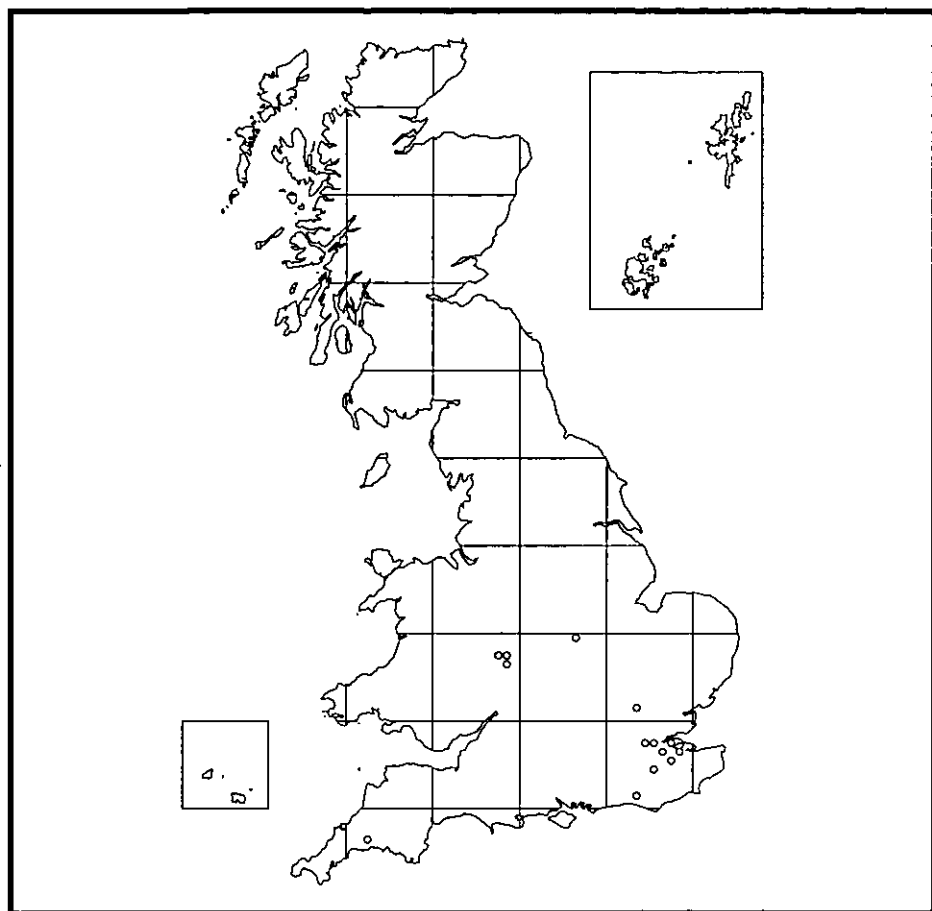
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Harde (1984), Hickin (1963), Hickin (1987), Uhthoff-Kaufmann (1989c)

Distribution Bílý and Mehl (1989), Uhthoff-Kaufmann (1989c)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987), Uhthoff-Kaufmann (1989c)

The larvae can be found in the stumps, branches or roots of a variety of tree species. Adults occur from May or June until August and are attracted to flowers, especially umbellifers (Apiaceae).

Map 14 *Dinoptera collaris* (Linnaeus 1758)



Threat status RDB 3 (Hyman 1986, Shirt 1987, Hyman & Parsons 1992)

Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987)

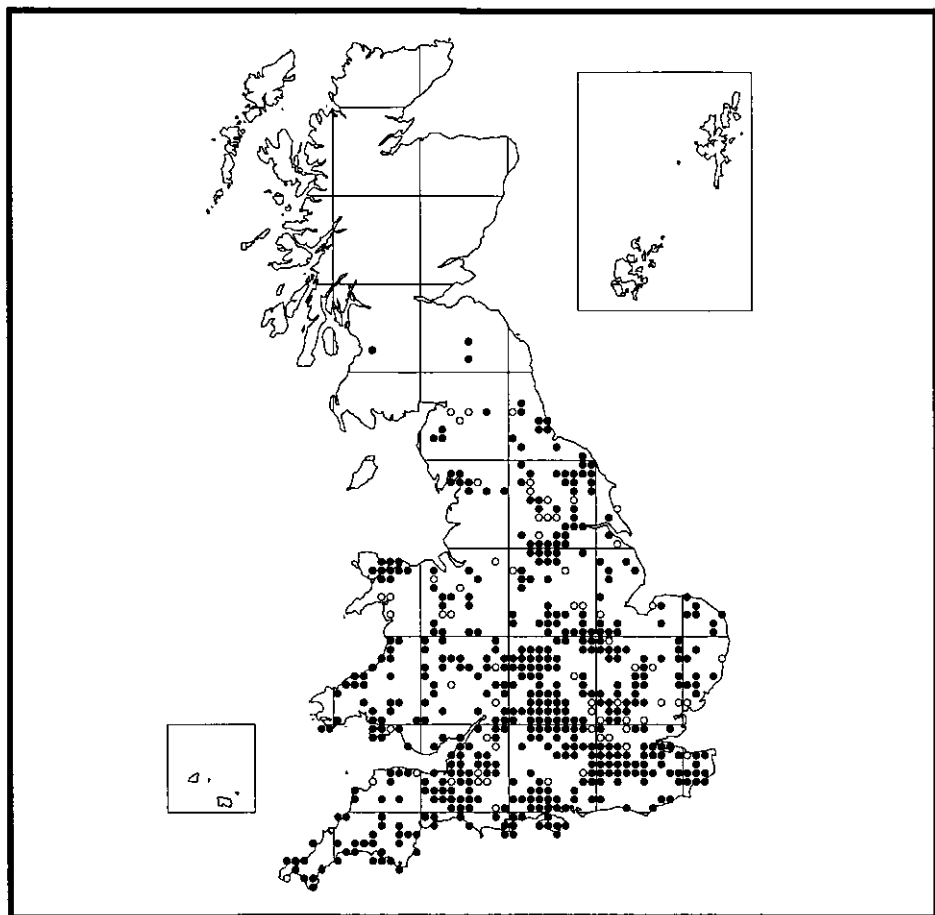
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963), Hickin (1987)

Distribution Bílý and Mehl (1989), Hyman and Parsons (1992), Uhthoff-Kaufmann (1989b), Uhthoff-Kaufmann (1992b)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987), Hyman and Parsons (1992), Uhthoff-Kaufmann (1989b)

Found in woodland where it is associated with oak (*Quercus* spp.). Adults are recorded from April to July, and are attracted to a variety of flowers.

Map 15 *Grammoptera ruficornis* (Fabricius 1781)



Threat status *Grammoptera holomelina* Pool 1905, now regarded as a junior synonym of *G. ruficornis*, was originally considered to be an endemic species (Hammond 1996)

Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984), Hickin (1963)

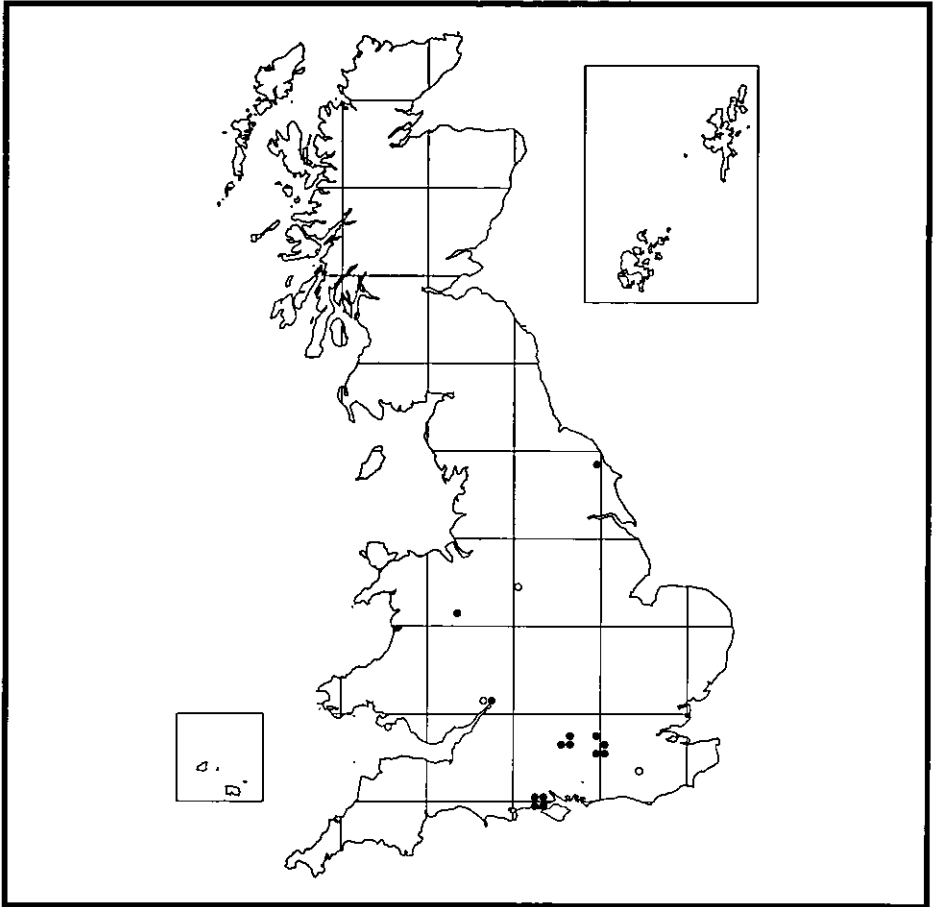
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963), Uthhoff-Kaufmann (1989a)

Distribution Bílý and Mehl (1989), Uthhoff-Kaufmann (1989a)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Uthhoff-Kaufmann (1989a)

The larvae inhabit the dead twigs or decaying small branches of a variety of deciduous trees and shrubs. Adults occur from April to September.

Map 16 *Grammoptera ustulata* (Schaller 1783)



Threat status RDB 3 (Hyman 1986, Shirt 1987, Hyman & Parsons 1992)

Illustration Hickin (1963)

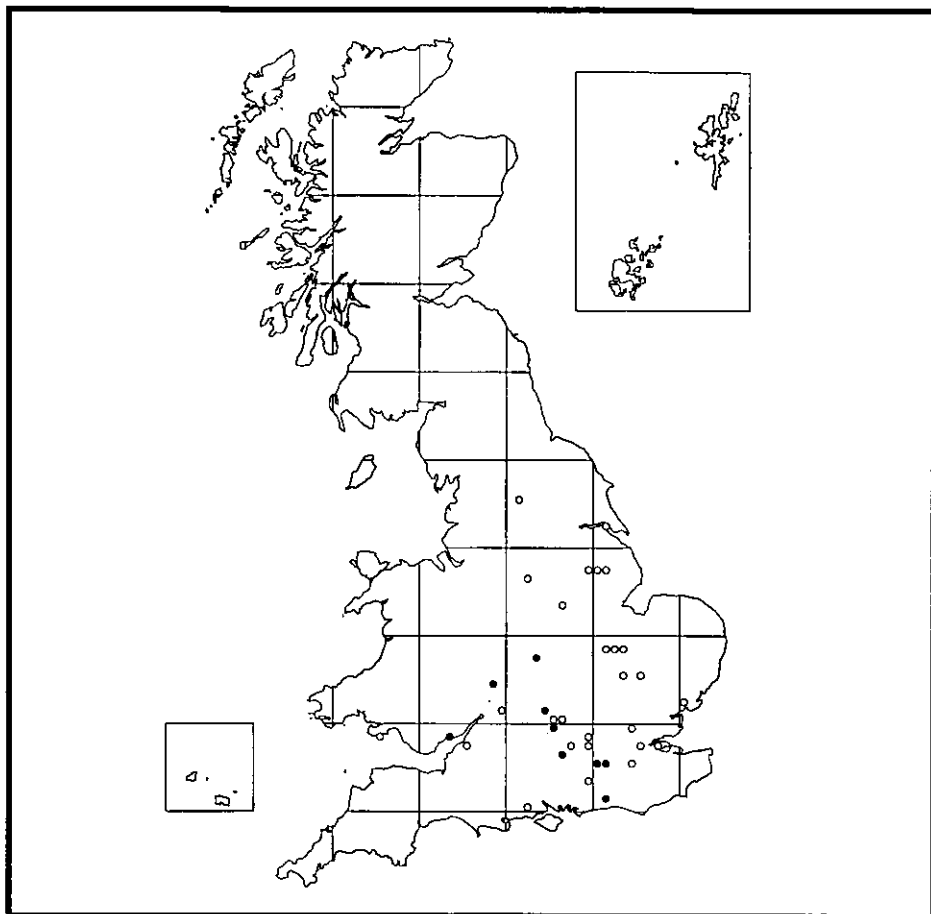
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963)

Distribution Bílý and Mehl (1989), Hickin (1963), Hyman and Parsons (1992), Uthhoff-Kaufmann (1989a)

Biology and habitat Bílý and Mehl (1989), Hickin (1963), Hyman and Parsons (1992), Uthhoff-Kaufmann (1989a)

Found in ancient broad-leaved and pasture woodland. Adults occur from April to August.

Map 17 *Grammoptera abdominalis* (Stephens 1831)



Threat status Notable A (Hyman 1986, Hyman & Parsons 1992). Not listed (Shirt 1987)

Illustration Hickin (1963)

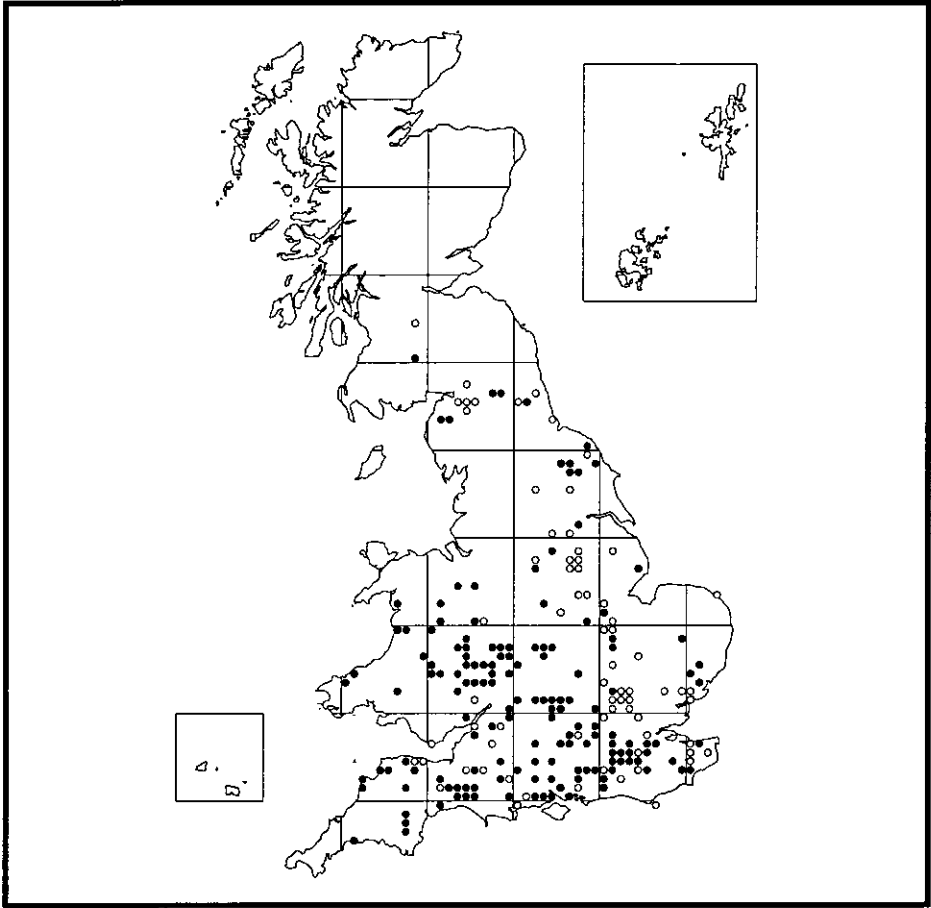
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963), Uhthoff-Kaufmann (1989a)

Distribution Bílý and Mehl (1989), Hickin (1963), Hyman and Parsons (1992), Uhthoff-Kaufmann (1989a)

Biology and habitat Bílý and Mehl (1989), Hickin (1963), Hyman and Parsons (1992), Uhthoff-Kaufmann (1989a)

Inhabits broad-leaved woodland, associated mainly with oak (*Quercus* spp.). Adults emerge from April to June and can be found until August.

Map 18 *Alosterna tabacicolor* (Degeer 1775)



Threat status None

Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984), Hickin (1963)

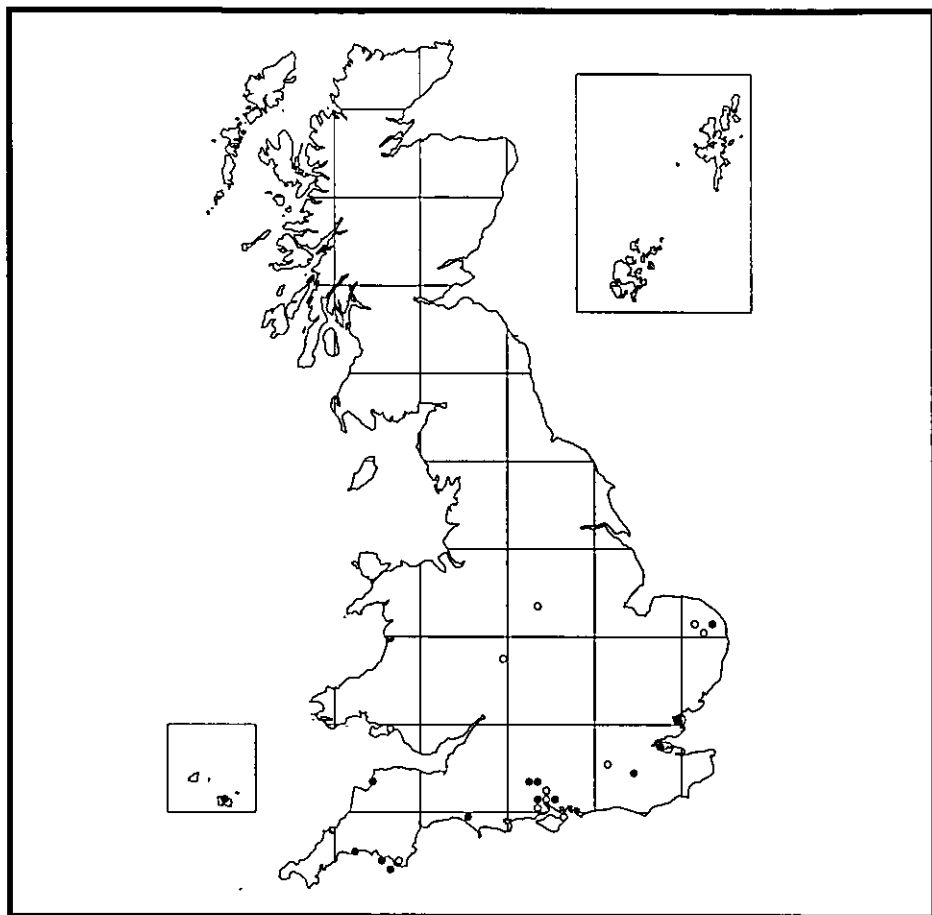
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963)

Distribution Bílý and Mehl (1989), Uhthoff-Kaufmann (1989a)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Uhthoff-Kaufmann (1989a)

Larvae feed within the dead and rotting twigs of several tree species. Adults may occur from April until August.

Map 19 *Anoplodera fulva* (Degeer 1775)



Threat status Formerly Notable A (Hyman 1986). Not listed (Shirt 1987). Classification revised, RDB 3 (Hyman & Parsons 1992)

Illustration Bense (1995), Hickin (1963)

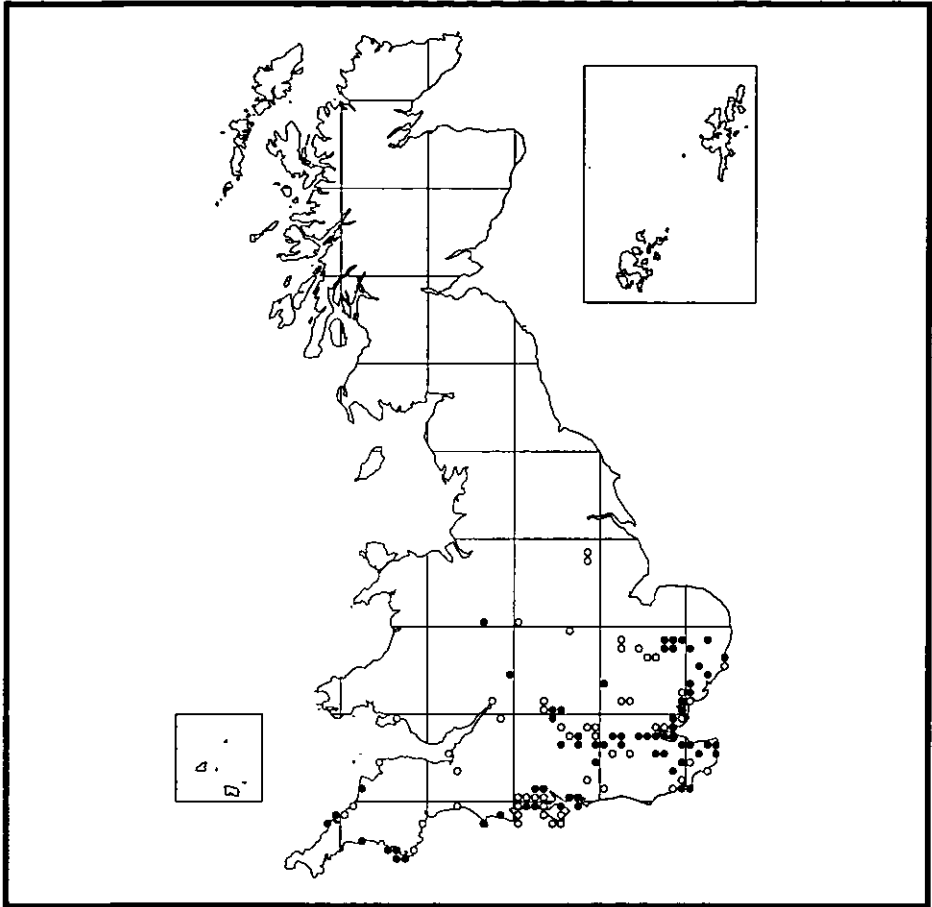
Description/key Bense (1995), Duffy (1952), Hickin (1963)

Distribution Hyman and Parsons (1992), Uthhoff-Kaufmann (1987)

Biology and habitat Hyman and Parsons (1992), Uthhoff-Kaufmann (1987)

Usually associated with broad-leaved woodland. Adults are recorded from June to August, often on flowers.

Map 20 *Anoplodera livida* (Fabricius 1777)



Threat status None

Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984),
Hickin (1963)

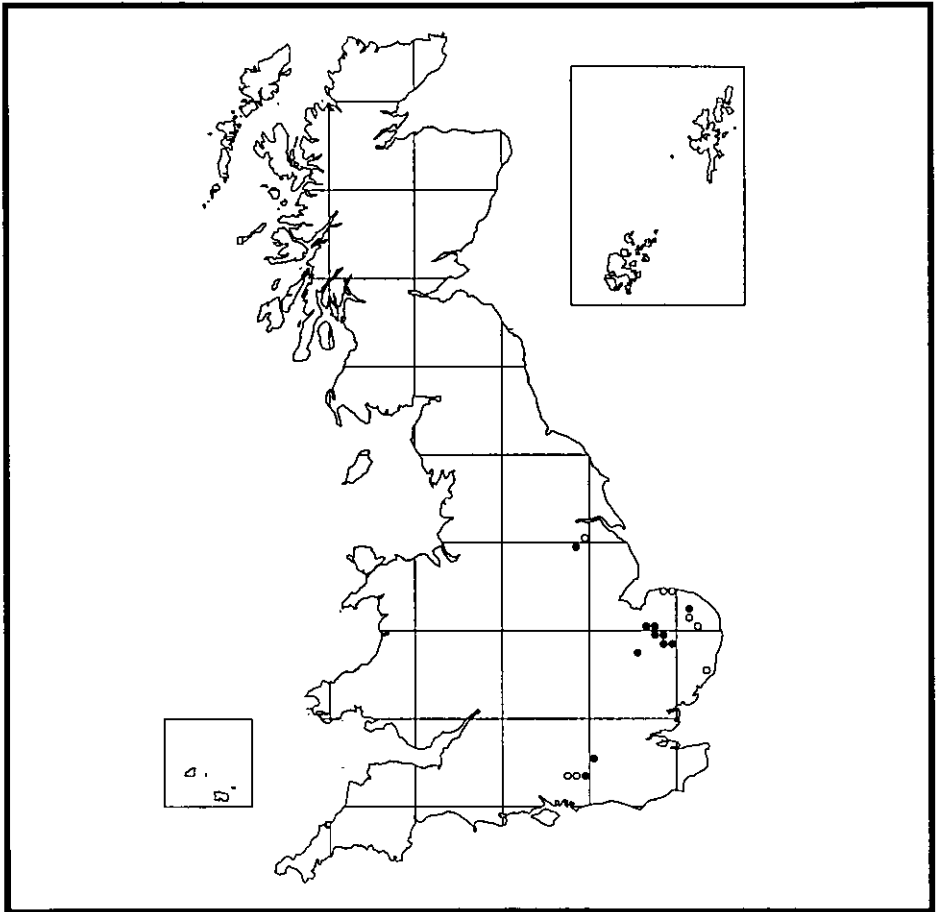
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Harde
(1984), Hickin (1963)

Distribution Bílý and Mehl (1989), Uhthoff-Kaufmann (1987)

Biology and habitat Bílý and Mehl (1989), Uhthoff-Kaufmann (1987)

The larvae are said to inhabit both deciduous and coniferous trees. Adults occur from May to August.

Map 21 *Anoplodera rubra* (Linnaeus 1758)



Threat status RDB 3 (Hyman 1986, Shirt 1987). Not listed (Hyman & Parsons 1992)

Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984), Hickin (1963), Duffy (1952)

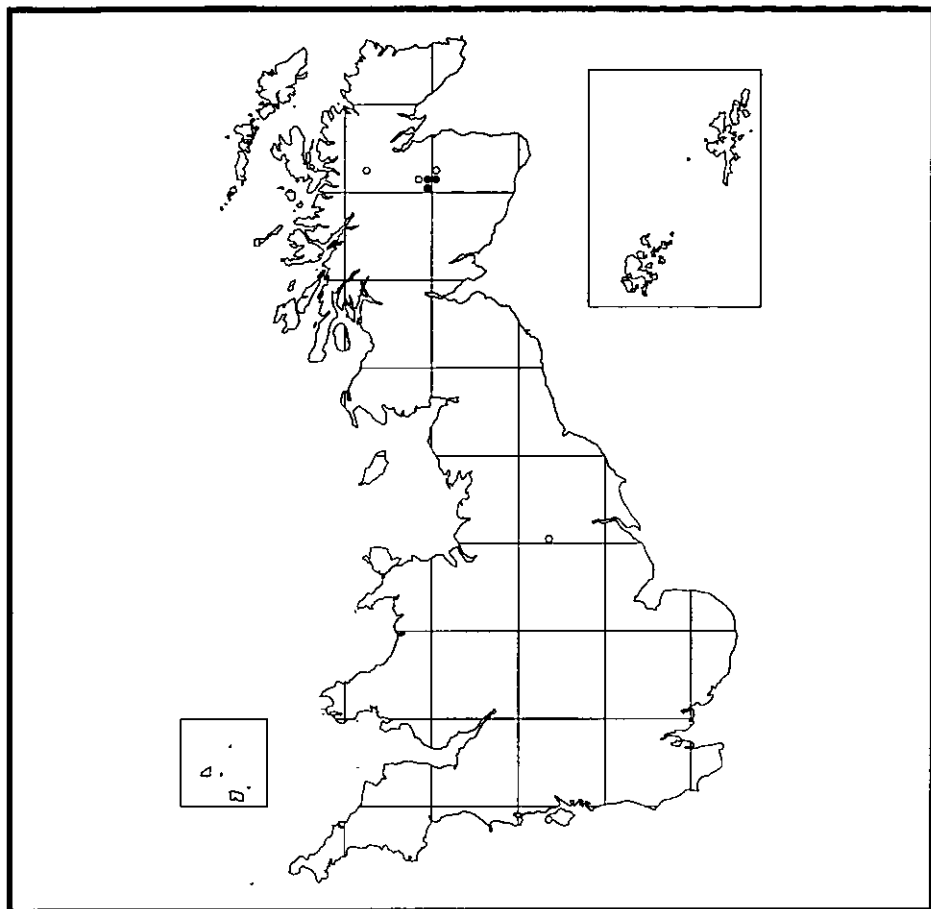
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Harde (1984), Hickin (1963),

Distribution Bílý and Mehl (1989), Ulthoff-Kaufmann (1987)

Biology and habitat Bílý and Mehl (1989), Ulthoff-Kaufmann (1987)

Larvae are found in the stumps, branches and roots of conifers. Adult males are attracted to flowers and fly readily on warm days.

Map 22 *Anoplodera sanguinolenta* (Linnaeus 1761)



Threat status Formerly Notable A (Hyman 1986). Not listed (Shirt 1987). Classification revised, RDB 3 (Hyman & Parsons 1992)

Illustration Bense (1995), Bílý and Mehl (1989), Hickin (1963)

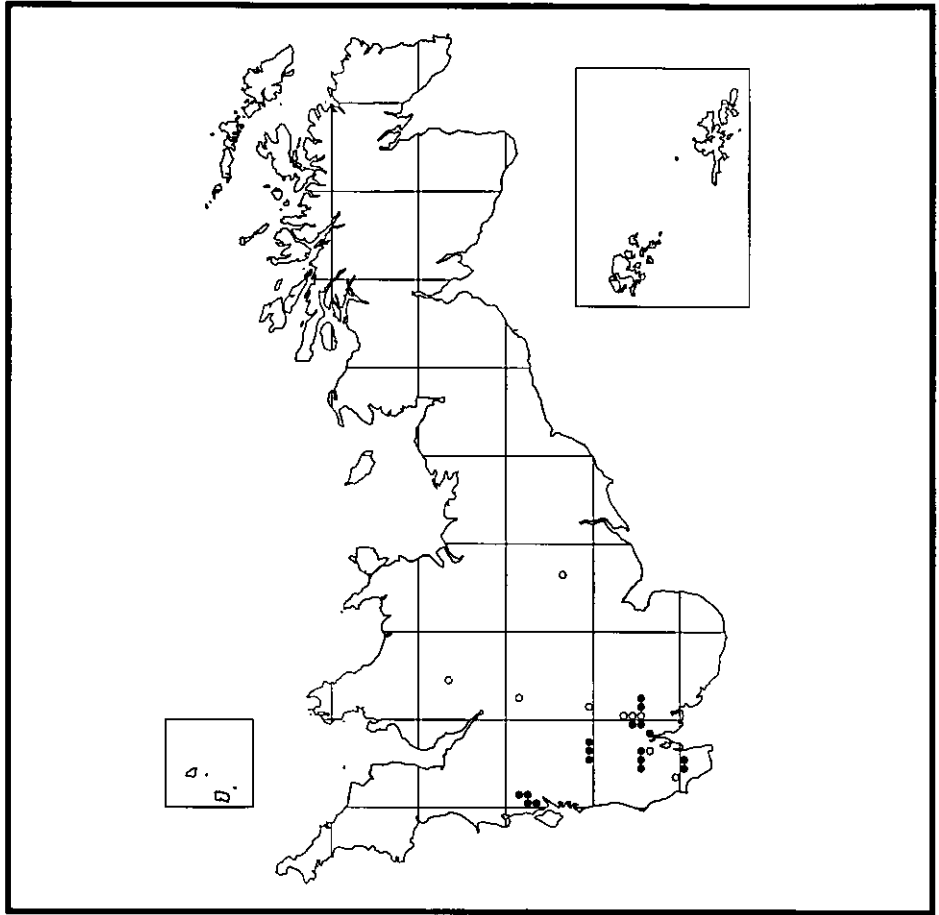
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963)

Distribution Bílý and Mehl (1989), Hyman and Parsons (1992), Uthhoff-Kaufmann (1987)

Biology and habitat Bílý and Mehl (1989), Hyman and Parsons (1992), Uthhoff-Kaufmann (1987)

Inhabits coniferous woodland, particularly associated with Scots pine (*Pinus sylvestris*). The adults, which occur mainly in June and July (sometimes later), are attracted to umbellifers (Apiaceae).

Map 23 *Anoplodera scutellata* (Fabricius 1781)



Threat status Notable A (Hyman 1986, Hyman & Parsons 1992). Not listed (Shirt 1987)

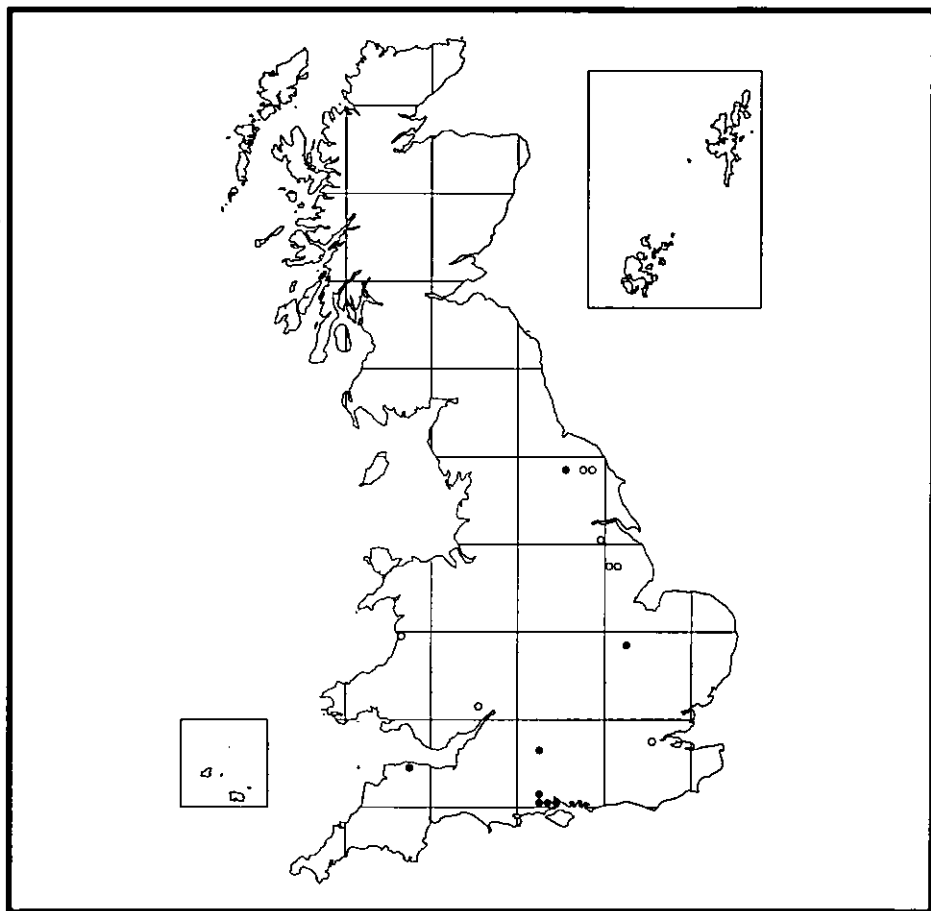
Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984)
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963), Uthhoff-Kaufmann (1987)

Distribution Bílý and Mehl (1989), Hyman and Parsons (1992), Uthhoff-Kaufmann (1987)

Biology and habitat Bílý and Mehl (1989), Hyman and Parsons (1992), Uthhoff-Kaufmann (1987)

Inhabits broad-leaved and pasture woodland, associated mainly with beech (*Fagus sylvatica*). Adults are found from March to August.

Map 24 *Anoplodera sexguttata* (Fabricius 1775)



Threat status RDB 3 (Hyman 1986, Shirt 1987, Hyman & Parsons 1992)

Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984), Hickin (1963)

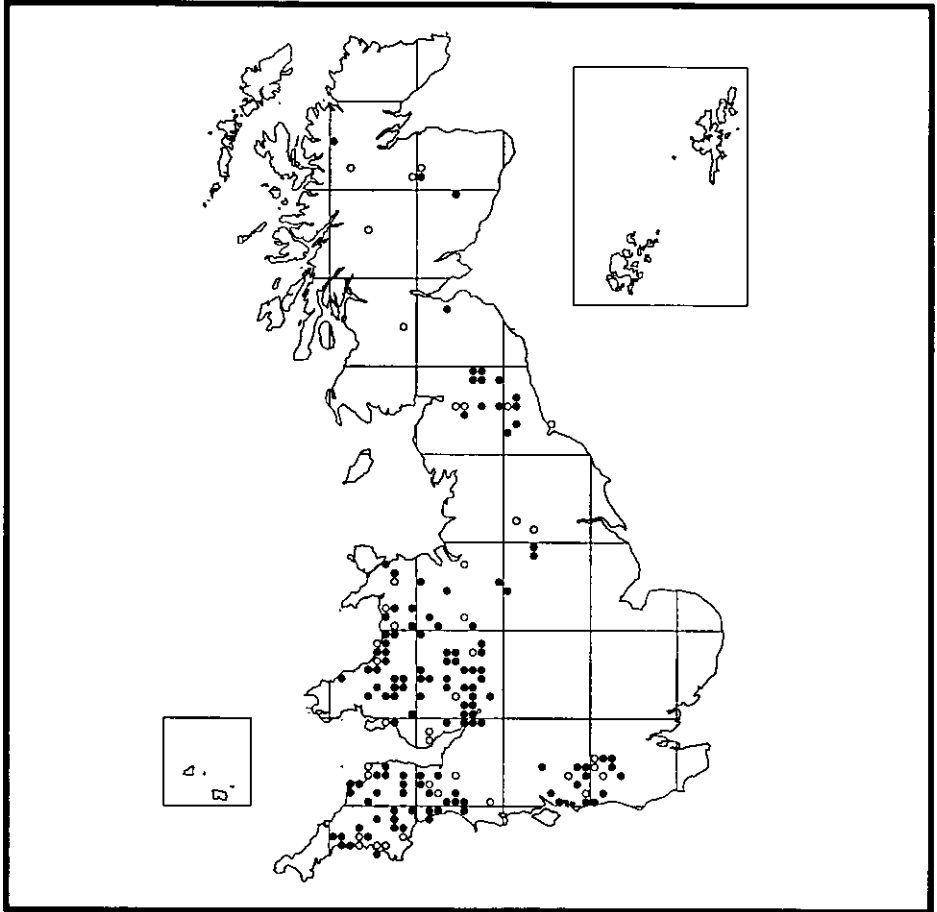
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Harde (1984), Hickin (1963)

Distribution Bílý and Mehl (1989), Hyman and Parsons (1992), Uhthoff-Kaufmann (1987)

Biology and habitat Bílý and Mehl (1989), Hyman and Parsons (1992), Uhthoff-Kaufmann (1987)

Probably associated with broad-leaved trees. Adults are recorded in June and July, often on flowers.

Map 25 *Judolia cerambyciformis* (Schrank 1781)



Threat status Notable B (Hyman 1986). Not listed (Shirt 1987, Hyman & Parsons 1992)

Illustration Bense (1995), Bílý and Mehl (1989), Duffy (1952), Harde (1984), Hickin (1963)

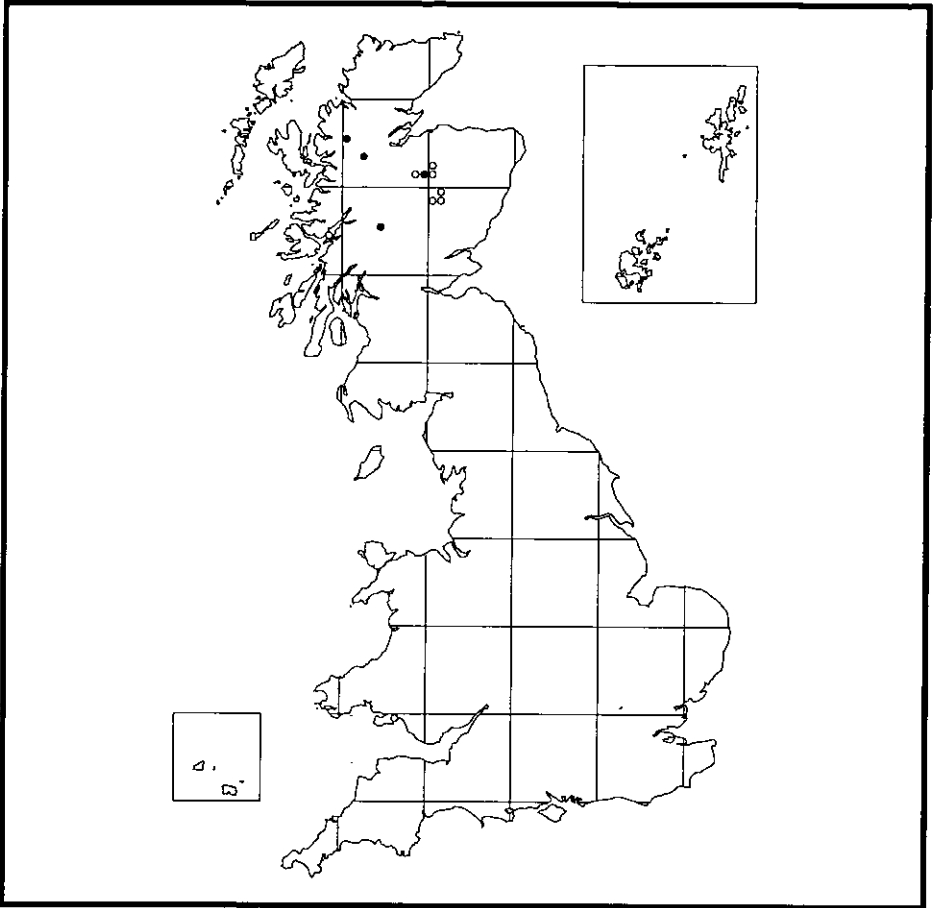
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Duffy (1953), Harde (1984), Hickin (1963)

Distribution Bílý and Mehl (1989), Uhthoff-Kaufmann (1989b)

Biology and habitat Bílý and Mehl (1989), Hickin (1963), Uhthoff-Kaufmann (1989b)

A polyphagous species, the larvae preferring moist tree roots. Adults can be found on flowers in wooded areas.

Map 26 *Judolia sexmaculata* (Linnaeus 1758)



Threat status Notable A (Hyman 1986, Hyman & Parsons 1992). Not listed (Shirt 1987)

Illustration Bense (1995), Bílý and Mehl (1989), Hickin (1963)

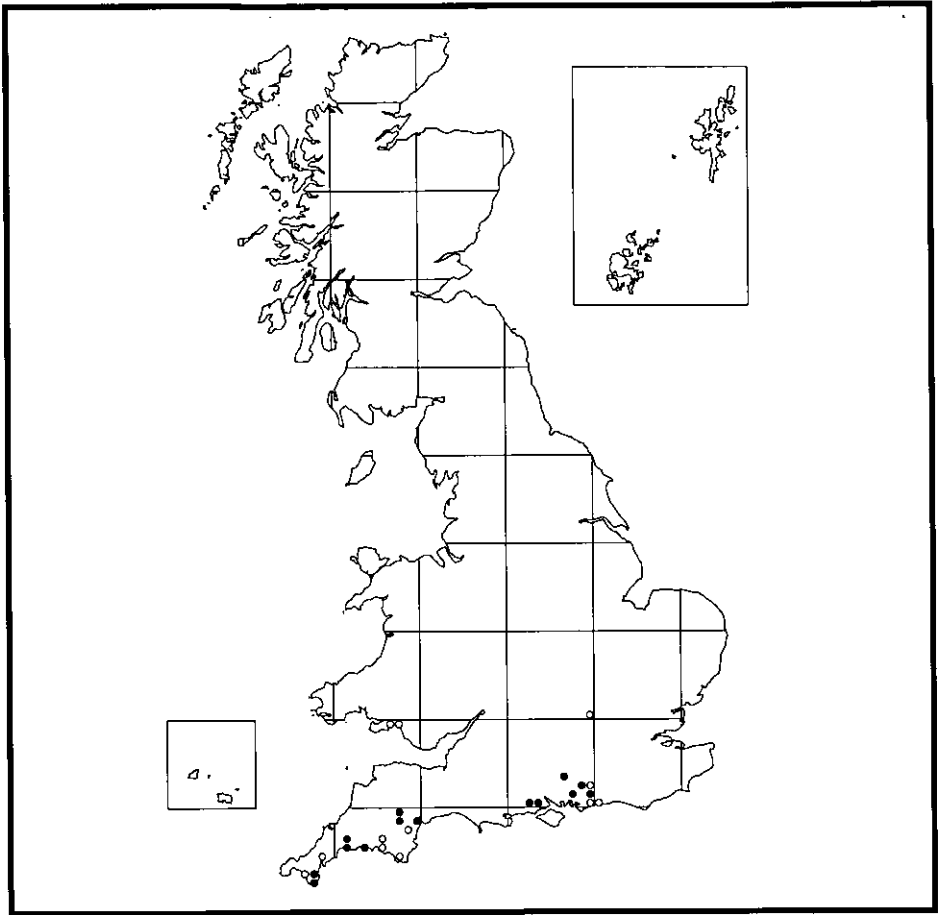
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963), Uhthoff-Kaufmann (1989b)

Distribution Bílý and Mehl (1989), Hyman and Parsons (1992), Uhthoff-Kaufmann (1989b)

Biology and habitat Bílý and Mehl (1989), Hyman and Parsons (1992), Uhthoff-Kaufmann (1989b)

A coniferous woodland species. Adults are recorded in June and July (rarely August), often on flowers.

Map 27 *Leptura aurulenta* Fabricius 1792



Threat status Notable A (Hyman 1986, Hyman & Parsons 1992). Not listed (Shirt 1987)

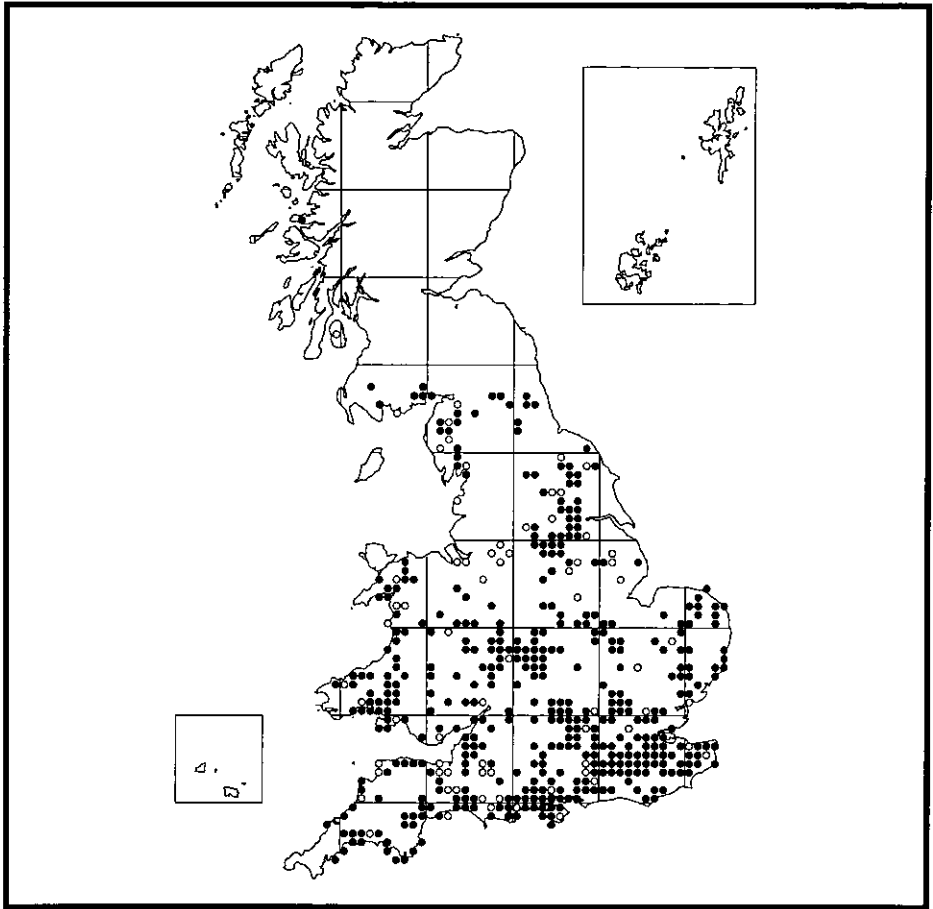
Illustration Bense (1995), Hickin (1963)

Description/key Bense (1995), Hickin (1963), Duffy (1952), Uthhoff-Kaufmann (1988a)

Distribution Hickin (1987), Hyman and Parsons (1992), Uthhoff-Kaufmann (1988a)

Biology and habitat Hickin (1963), Hickin (1987), Hyman and Parsons (1992), Uthhoff-Kaufmann (1988a)

Found in broad-leaved and pasture woodland, chiefly associated with oak (*Quercus* spp.), but also many other trees. Adults emerge mainly in June or July but can be found until August or September.



Threat status None

Illustration Bense (1995), Bílý and Mehl (1989), Duffy (1952), Harde (1984), Hickin (1963), Hickin (1987), Uthhoff-Kaufmann (1988a) (as *Strangalia maculata* (Poda) ab. *stelligera* nov.)

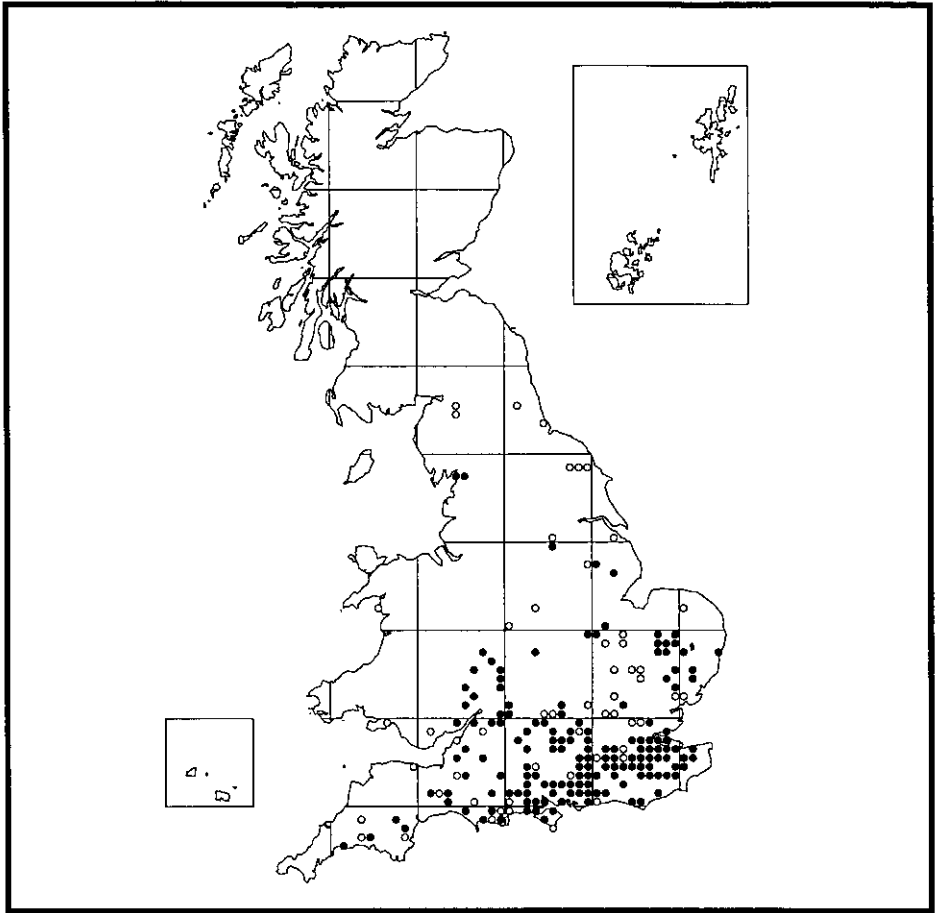
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Harde (1984), Hickin (1963), Hickin (1987), Uthhoff-Kaufmann (1988a), Uthhoff-Kaufmann (1995b) (as *Strangalia maculata* (Poda) var. *gibberdi* nov.)

Distribution Bílý and Mehl (1989), Uthhoff-Kaufmann (1988a)

Biology and habitat Bílý and Mehl (1989), Hickin (1963), Hickin (1987), Uthhoff-Kaufmann (1988a)

Larvae may be found in the stumps of several tree species. The adults are attracted to flowers and can be found from May to August.

Map 29 *Leptura melanura* Linnaeus 1758



Threat status None

Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987)

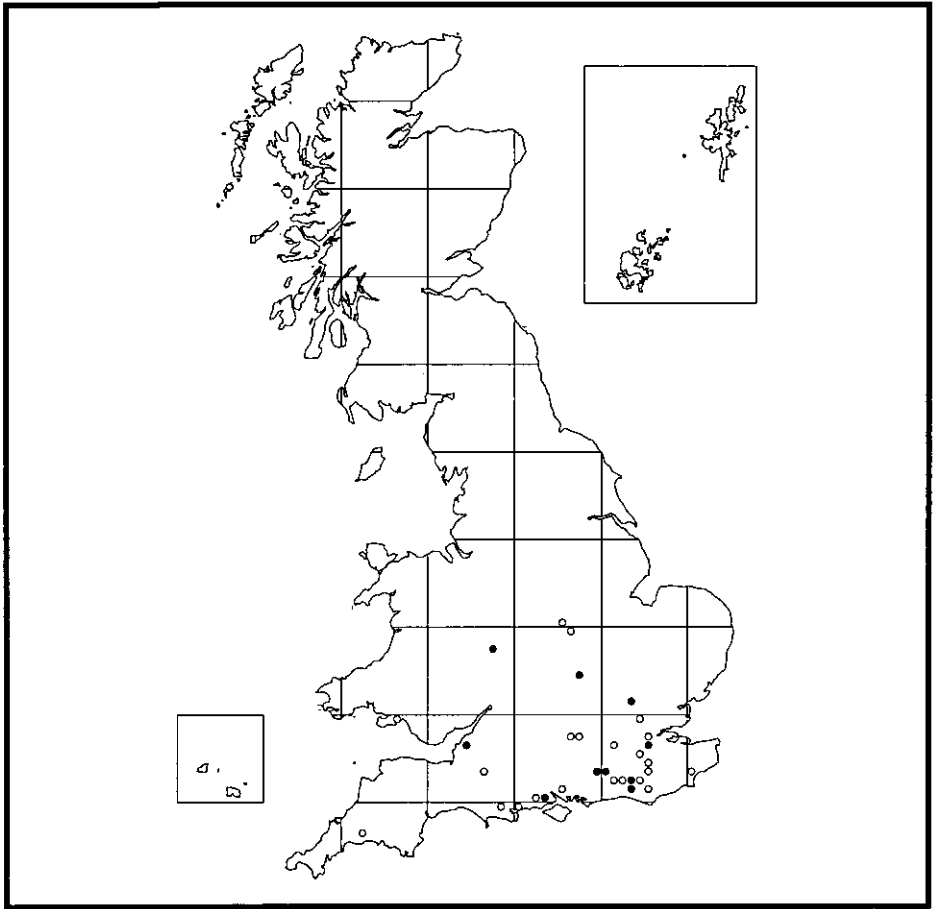
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Harde (1984), Hickin (1963), Hickin (1987)

Distribution Bílý and Mehl (1989), Uthhoff-Kaufmann (1988a)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Uthhoff-Kaufmann (1988a)

Suggested larval hosts are the rotten branches of oak (*Quercus* spp.) and the roots of broom (*Cytisus scoparius*). Adults occur from May until September, and are attracted to flowers.

Map 30 *Leptura nigra* Linnaeus 1758



Threat status Notable A (Hyman 1986, Hyman & Parsons 1992). Not listed (Shirt 1987)

Illustration Harde (1984), Hickin (1963)

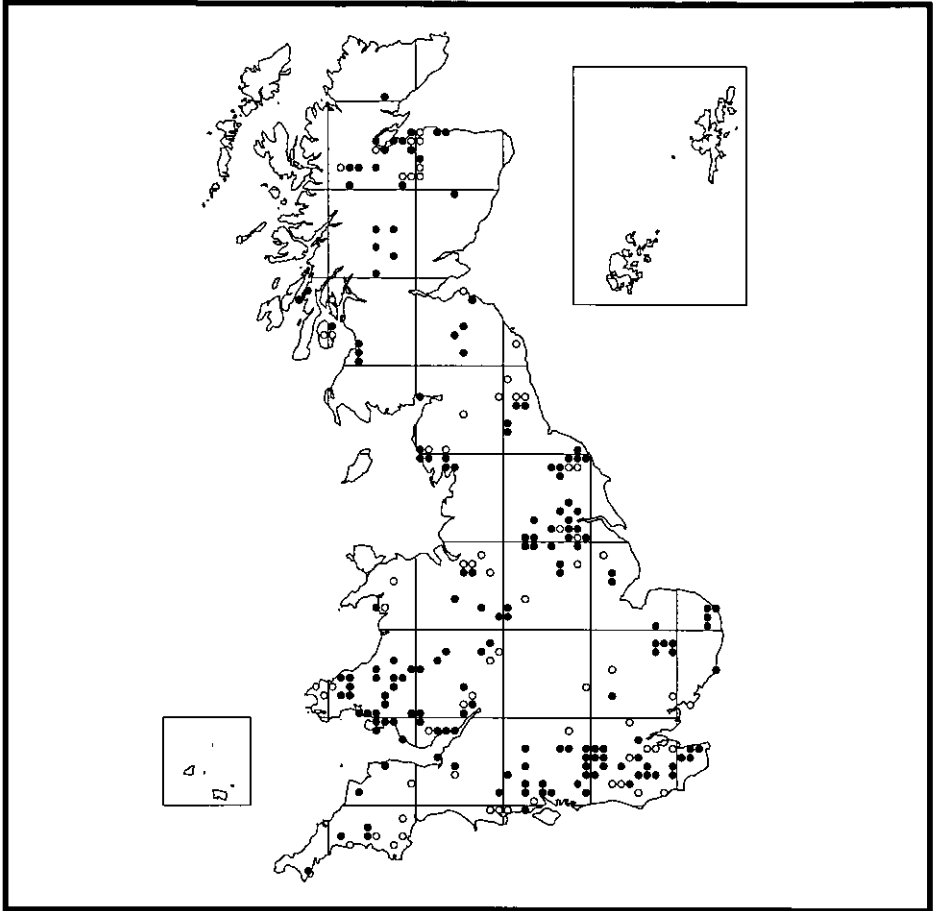
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Harde (1984), Hickin (1963), Hickin (1987)

Distribution Bílý and Mehl (1989), Hyman and Parsons (1992), Uthhoff-Kaufmann (1988a)

Biology and habitat Bílý and Mehl (1989), Hyman and Parsons (1992), Uthhoff-Kaufmann (1988a)

Probably associated with broad-leaved woodland. The adults occur from May to July.

Map 31 *Leptura quadrifasciata* Linnaeus 1758



Threat status Notable B (Hyman 1986.) Not listed (Hyman & Parsons 1992, Shirt 1987)

Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984), Hickin (1963)

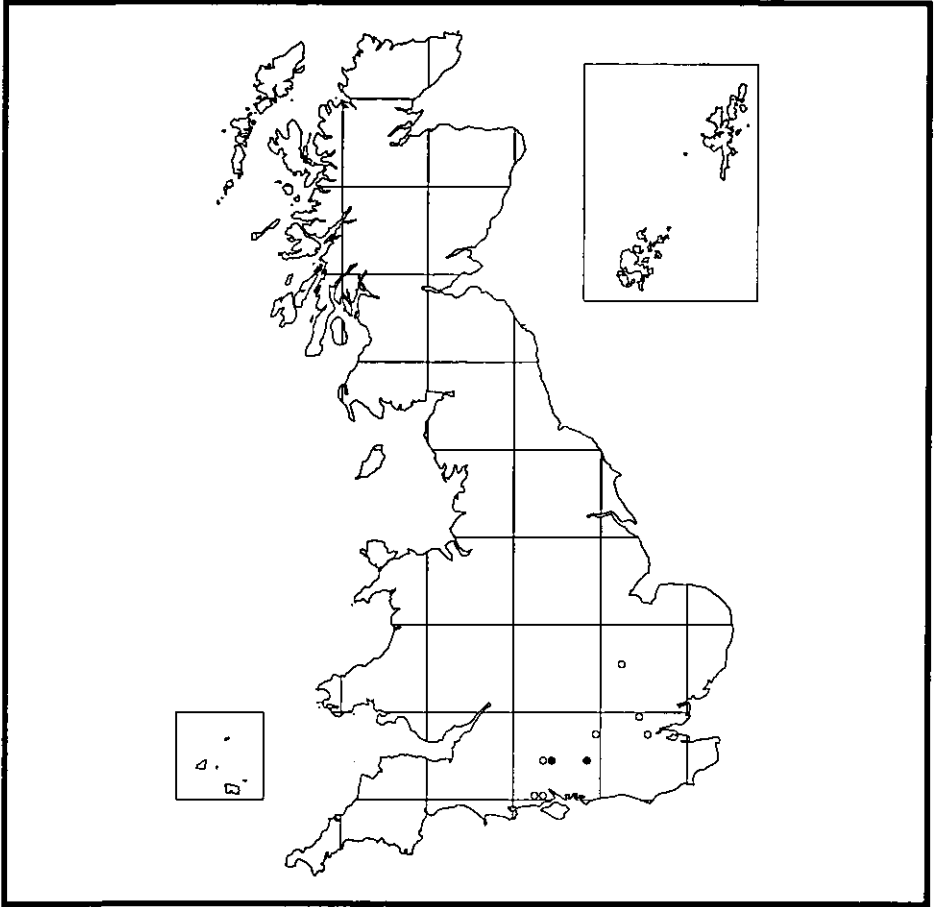
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Harde (1984), Hickin (1963)

Distribution Bílý and Mehl (1989), Uhthoff-Kaufmann (1988a)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Uhthoff-Kaufmann (1988a)

Larvae are found in dead and decaying trees. Adults occur from May to July.

Map 32 *Leptura revestita* Linnaeus 1767



Threat status RDB 3 (Hyman 1986, Shirt 1987). Revised status RDB 1 (Hyman & Parsons 1992)

Illustration Bense (1995), Bílý and Mehl (1989), Hickin (1963), Hickin (1987)

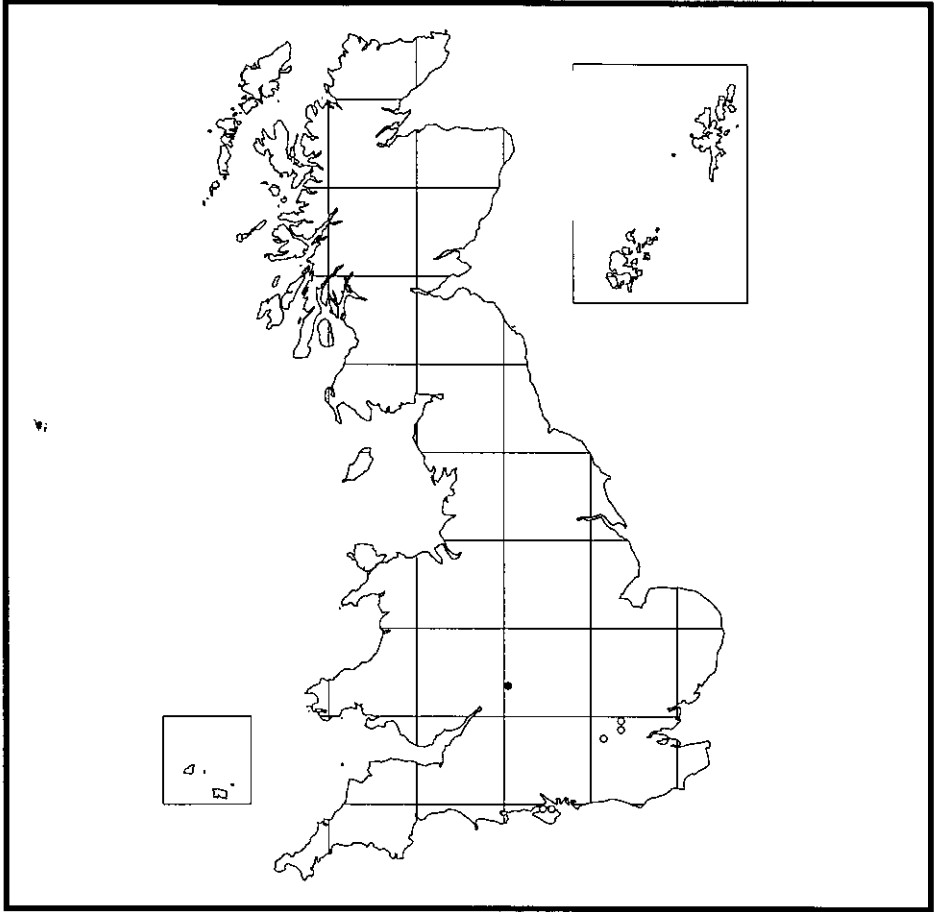
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963)

Distribution Bílý and Mehl (1989), Hyman and Parsons (1992), Uhthoff-Kaufmann (1988a), Uhthoff-Kaufmann (1992b)

Biology and habitat Bílý and Mehl (1989), Hyman and Parsons (1992), Uhthoff-Kaufmann (1988a), Uhthoff-Kaufmann (1992b)

May be associated with fruit, elm (*Ulmus* spp.) or oak (*Quercus* spp.). Adults recorded only in June. Recorded from Warwickshire in 1996 (Forsythe 1997).

Map 33 *Trinophylum cribratum* Bates 1878



Threat status List 2 (Hyman 1986). Not listed (Hyman and Parsons 1992, Shirt 1987)

Illustration Bense (1995), Hickin (1963)

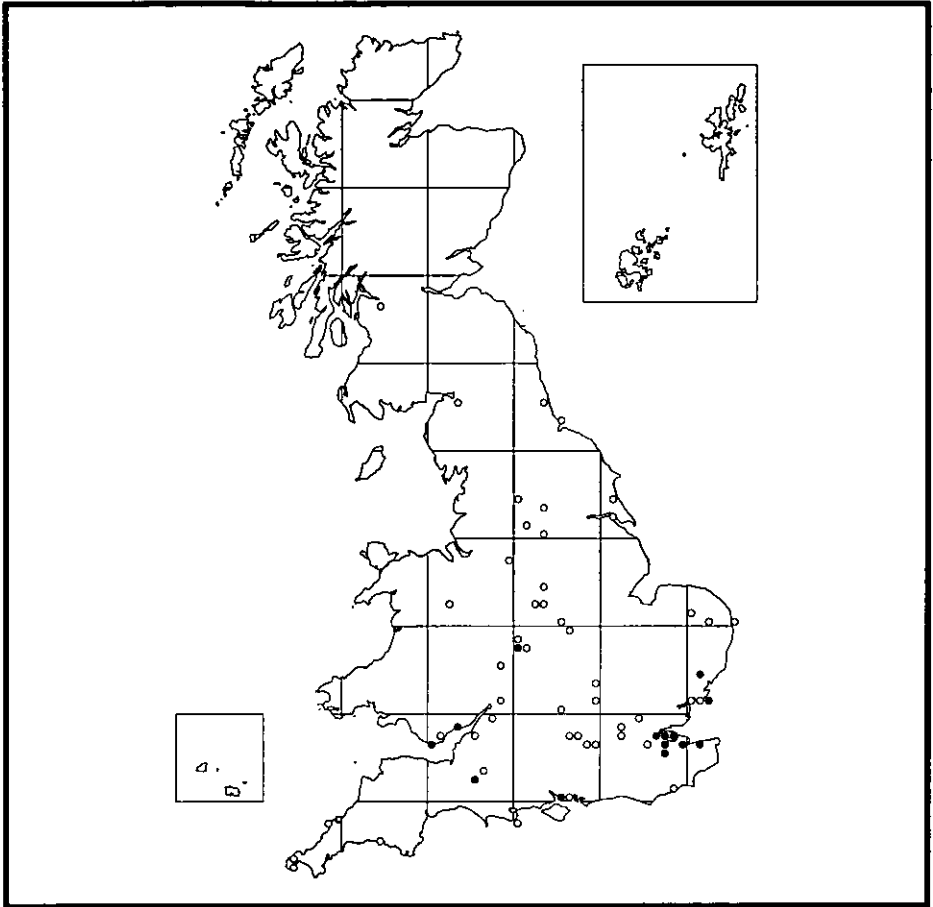
Description/key Bense (1995), Duffy (1952), Hickin (1963)

Distribution Uthhoff-Kaufmann (1990e)

Biology and habitat Hickin (1963), Uthhoff-Kaufmann (1990e)

A very rare immigrant species, only recently found in Britain. Larvae are found in oak (*Quercus* spp.), birch (*Betula* spp.) and other trees. Adults emerge in May and June, sometimes surviving until September, and are nocturnal.

Map 34 *Gracilia minuta* (Fabricius 1781)



Threat status Notable A (Hyman 1986). Not listed (Shirt 1987).
Revised status, RDB 2 (Hyman & Parsons 1992)

Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984),
Hickin (1963), Hickin (1987)

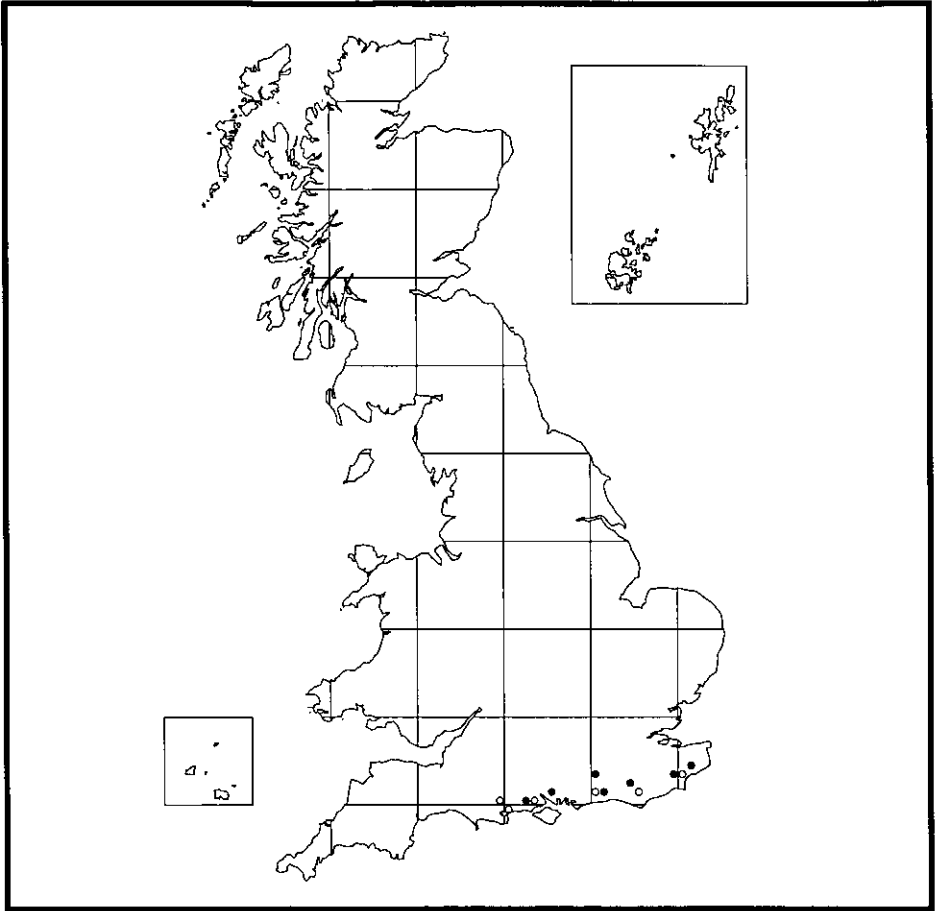
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin
(1963), Hickin (1987)

Distribution Hyman and Parsons (1992), Uhthoff-Kaufmann (1990e)

Biology and habitat Harde (1984), Hickin (1963), Hickin (1987), Hyman and
Parsons (1992), Uhthoff-Kaufmann (1990e)

This species, which inhabits woodland and scrub, has declined in recent times.
The adult occurs from May to August.

Map 35 *Obrlum brunneum* (Fabricius 1792)



Threat status Notable A (Hyman 1986). Not listed (Shirt 1987, Hyman & Parsons 1992)

Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984)

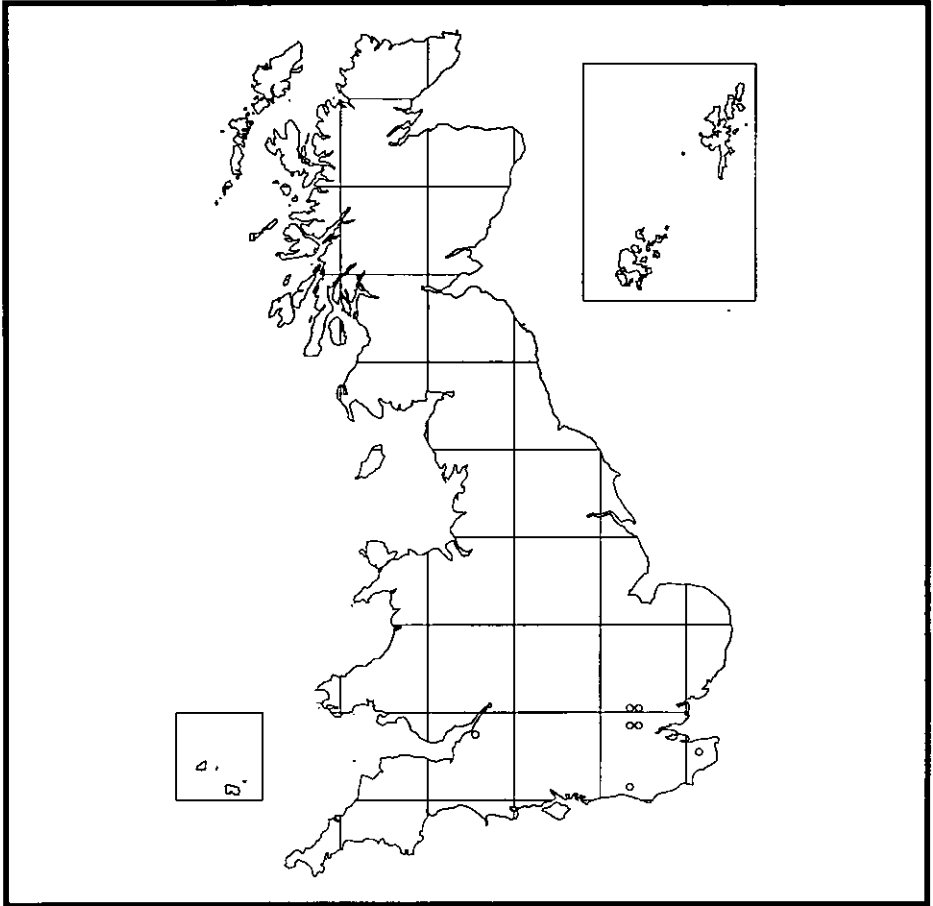
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963), Uhthoff-Kaufmann (1985)

Distribution Bílý and Mehl (1989), Uhthoff-Kaufmann (1985)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Uhthoff-Kaufmann (1985)

Adults occur from May to July.

Map 36 *Obrium cantharinum* (Linnaeus 1767)



Threat status RDB Appendix (Hyman 1986, Shirt 1987). Revised status Extinct (Hyman & Parsons 1992)

Illustration Bense (1995), Bílý and Mehl (1989), Hickin (1963)

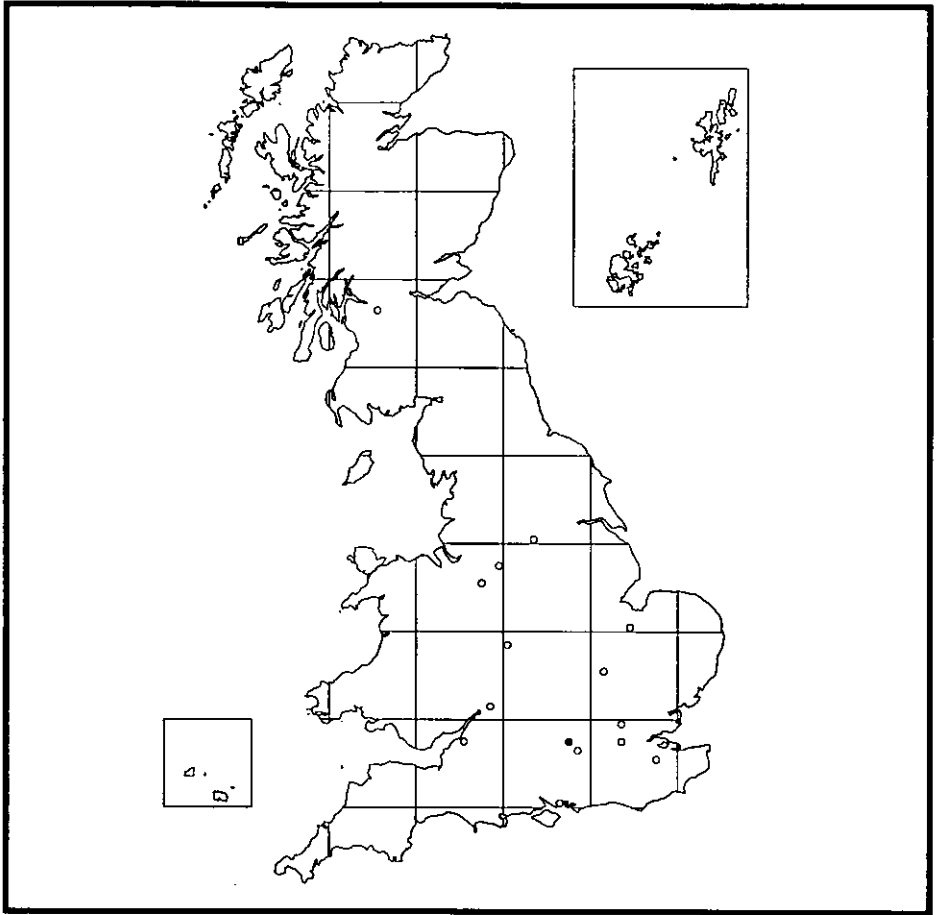
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963), Uthhoff-Kaufmann (1985)

Distribution Bílý and Mehl (1989), Hyman and Parsons (1992), Uthhoff-Kaufmann (1985), Uthhoff-Kaufmann (1992b)

Biology and habitat Bílý and Mehl (1989), Hickin (1963), Hyman and Parsons (1992), Uthhoff-Kaufmann (1985), Uthhoff-Kaufmann (1992b)

Adults found in June and July.

Map 37 *Nathrius brevipennis* (Mulsant 1839)



Threat status None

Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987)

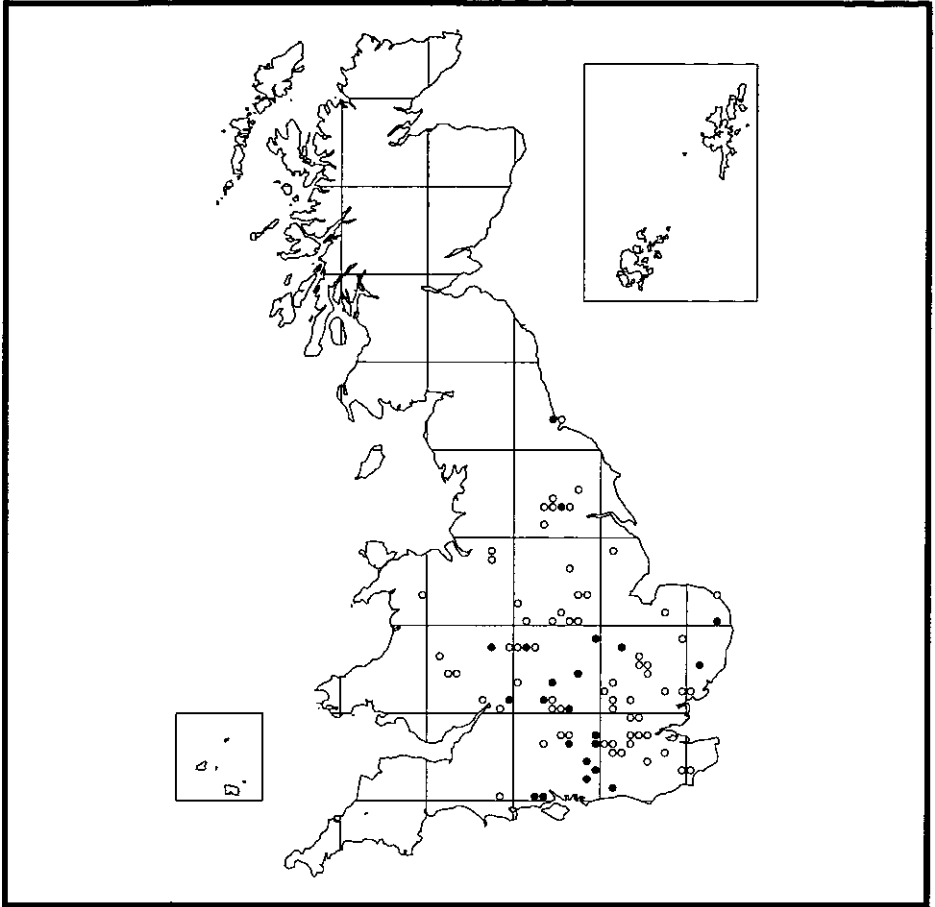
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Harde (1984), Hickin (1963), Hickin (1987)

Distribution Bílý and Mehl (1989), Hickin (1963), Hickin (1987), Uthhoff-Kaufmann (1990d)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987), Uthhoff-Kaufmann (1990d)

Larvae feed on a variety of tree and shrub species, both deciduous and coniferous. Sometimes imported. Adults emerge in mid-summer and can be found until August.

Map 38 *Molorchus minor* (Linnaeus 1758)



Threat status Notable B (Hyman 1986). Not listed (Shirt 1987, Hyman & Parsons 1992)

Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987)

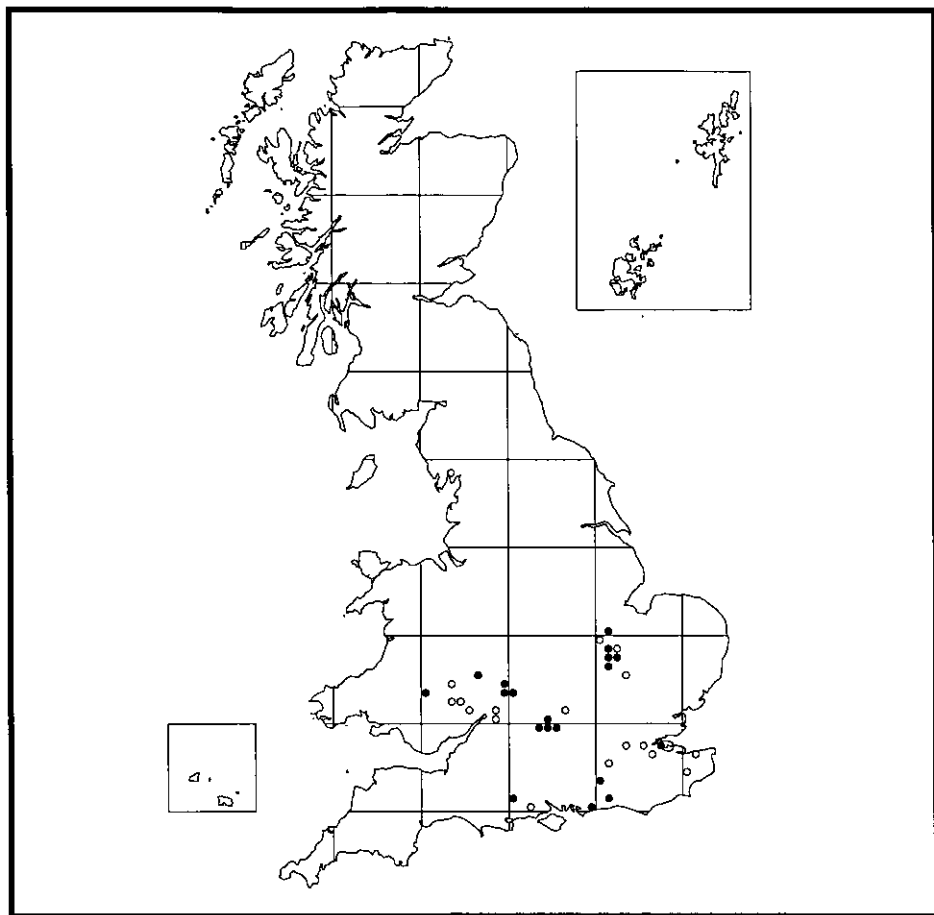
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963), Hickin (1987)

Distribution Bílý and Mehl (1989), Hickin (1963), Hickin (1987), Uhthoff-Kaufmann (1990d)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987), Uhthoff-Kaufmann (1990d)

Associated with many tree species, but particularly favouring dead spruce (*Picea* spp.) branches. Adults emerge from the pupal case in August but are said to remain in the pupal cell until the following May or June.

Map 39 *Molorchus umbellatarum* (von Schreber 1759)



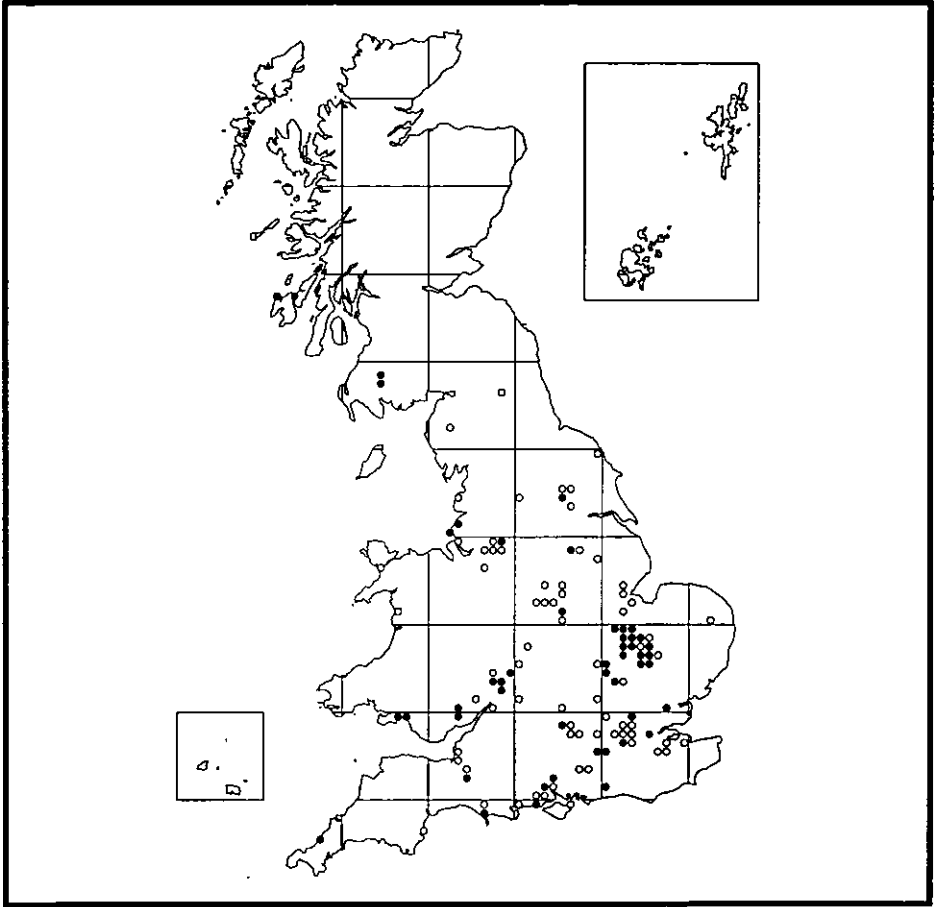
Threat status Notable A (Hyman 1986, Hyman & Parsons 1992). Not listed (Shirt 1987)

Illustration Bense (1995), Bílý and Mehl (1989), Hickin (1963)
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963)

Distribution Bílý and Mehl (1989), Hyman and Parsons (1992), Uthhoff-Kaufmann (1990d)

Biology and habitat Bílý and Mehl (1989), Hickin (1963), Hyman and Parsons (1992), Uthhoff-Kaufmann (1990d)

Associated with various trees and shrubs. The adult, which is attracted to umbellifers (Apiaceae), is found from May to July.



Threat status Notable A (Hyman 1986). Not listed (Shirt 1987). Revised status Notable B (Hyman & Parsons 1992)

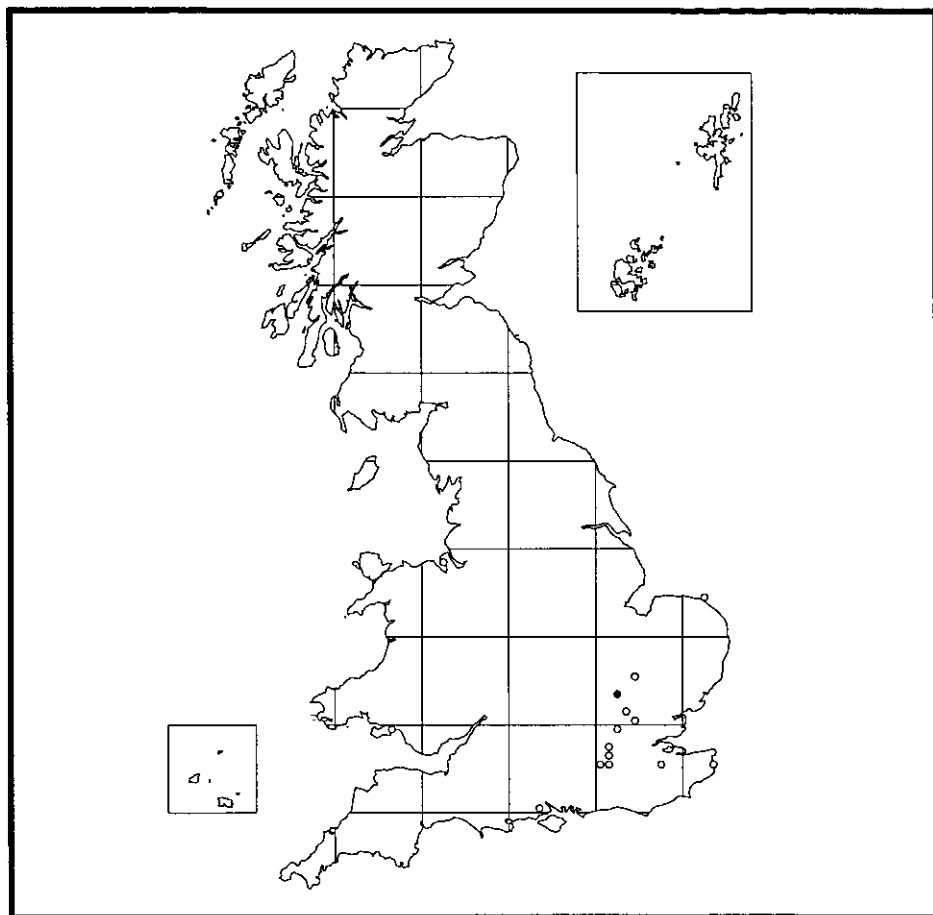
Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987), Linssen (1959)

Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963), Hickin (1987)

Distribution Bílý and Mehl (1989), Hickin (1987), Hyman and Parsons (1992), Uthhoff-Kaufmann (1990e)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hyman and Parsons (1992), Uthhoff-Kaufmann (1990e)

Associated with willows (*Salix* spp.) along river margins and in wetlands and wet woodlands. Adults emerge from May to September.



Threat status List 3 (Hyman 1986). Not listed (Hyman & Parsons 1992, Shirt 1987)

Illustration Bense (1995), Bílý and Mehl (1989), Duffy (1952), Harde (1984), Hickin (1963), Hickin (1987), Linssen (1959)

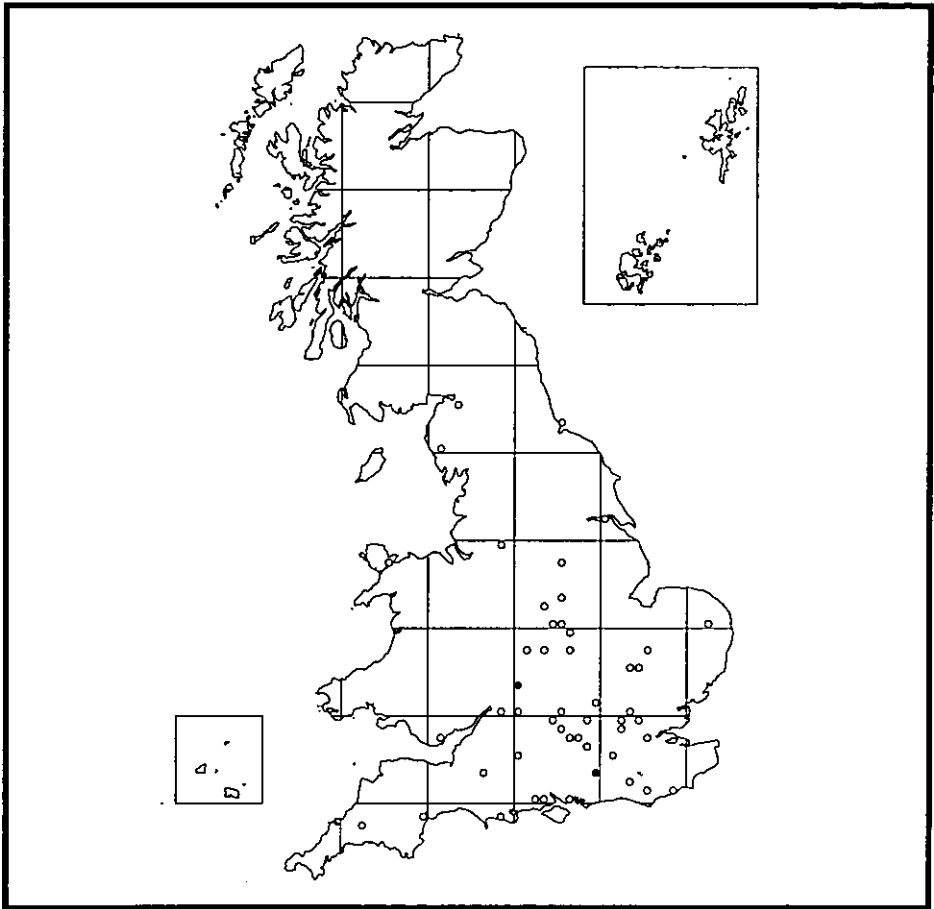
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963), Hickin (1987)

Distribution Bílý and Mehl (1989), Hickin (1963), Hickin (1987), Uthhoff-Kaufmann (1990e)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987), Uthhoff-Kaufmann (1990e)

Although also known from stumps, posts and poles outdoors, this species is particularly associated with dry timbers in buildings, where it can cause serious damage. Adults may occur from July to September.

Map 42 *Callidium violaceum* (Linnaeus 1758)



Threat status RDB 3 (Hyman 1986, Shirt 1987). Not listed (Hyman & Parsons 1992)

Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987), Linssen (1959)

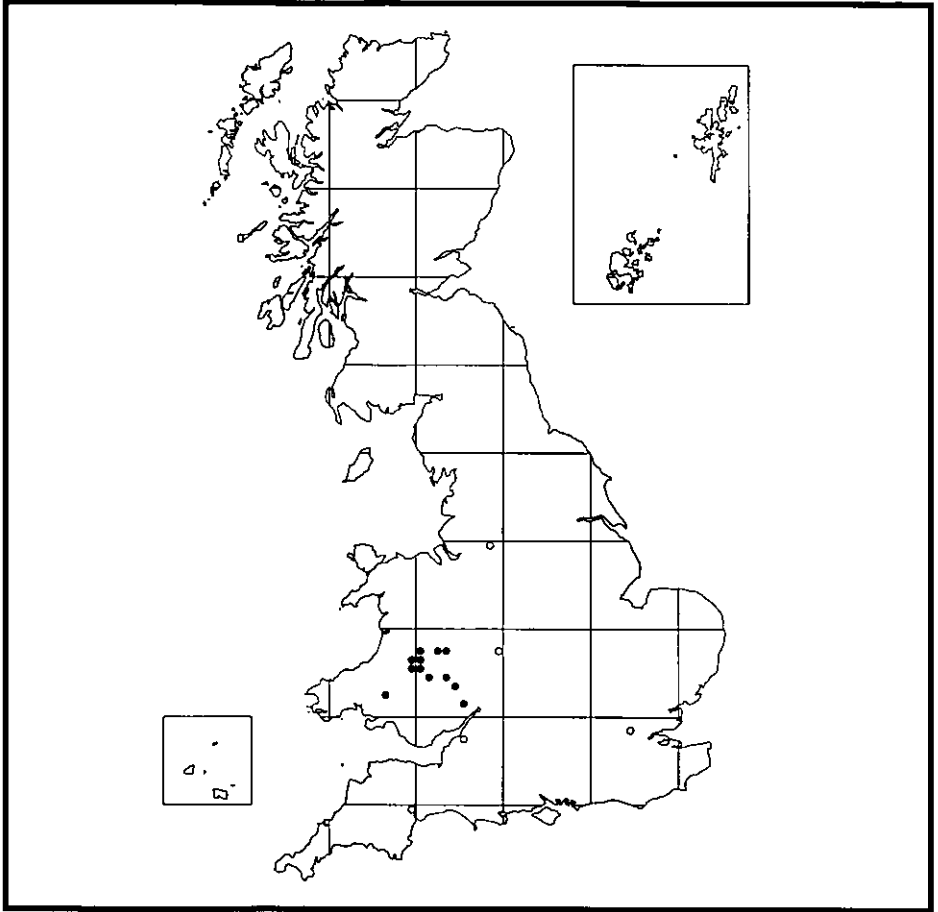
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963), Hickin (1987)

Distribution Bílý and Mehl (1989), Uhthoff-Kaufmann (1990c)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987), Uhthoff-Kaufmann (1990c)

Larvae are found in a wide variety of trees. Adults occur from April to July.

Map 43 *Pyrrhidium sanguineum* (Linnaeus 1758)



Threat status RDB 1 (Hyman 1986), RDB 2 (Hyman & Parsons 1992, Shirt 1987)

Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987), Linssen (1959)

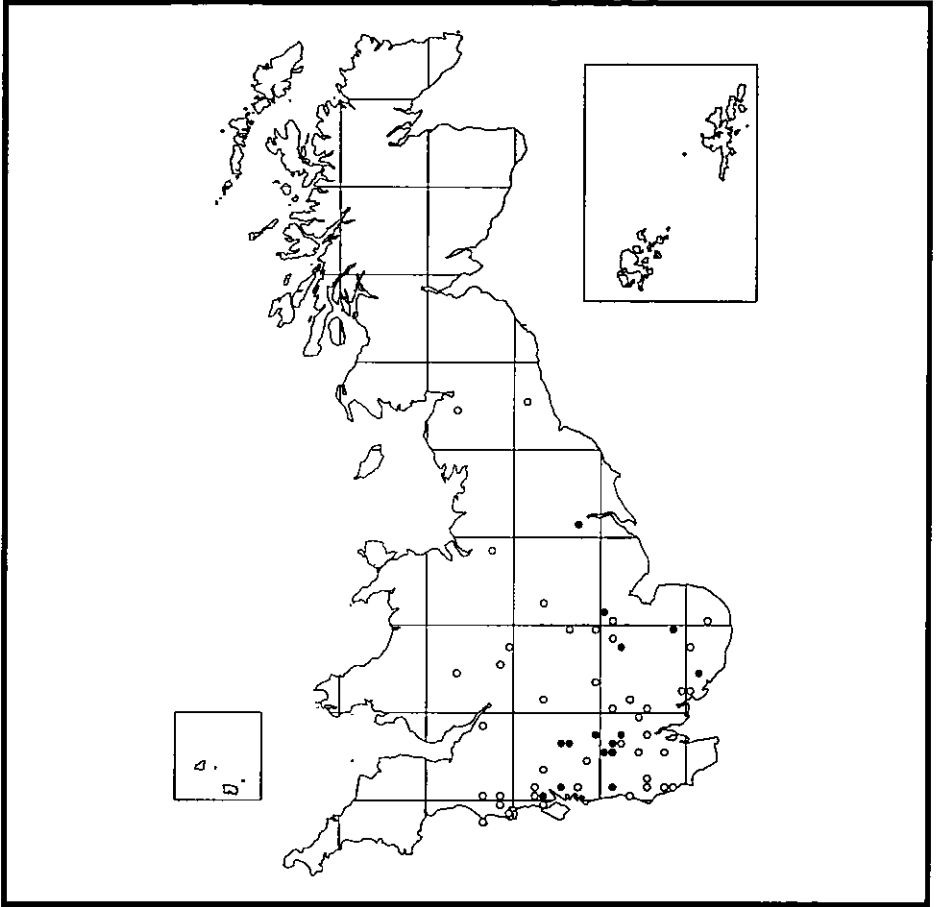
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963), Hickin (1987)

Distribution Bílý and Mehl (1989), Hickin (1963), Hickin (1987), Hyman and Parsons (1992), Uhthoff-Kaufmann (1990c), Uhthoff-Kaufmann (1992b)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hyman and Parsons (1992), Uhthoff-Kaufmann (1990c)

Associated with ancient broad-leaved and pasture woodland, particularly attracted to oak (*Quercus* spp.). Adults are found between April and June.

Map 44 *Phymatodes alni* (Linnaeus 1767)



Threat status Notable B (Hyman 1986, Hyman & Parsons 1992). Not listed (Shirt 1987)

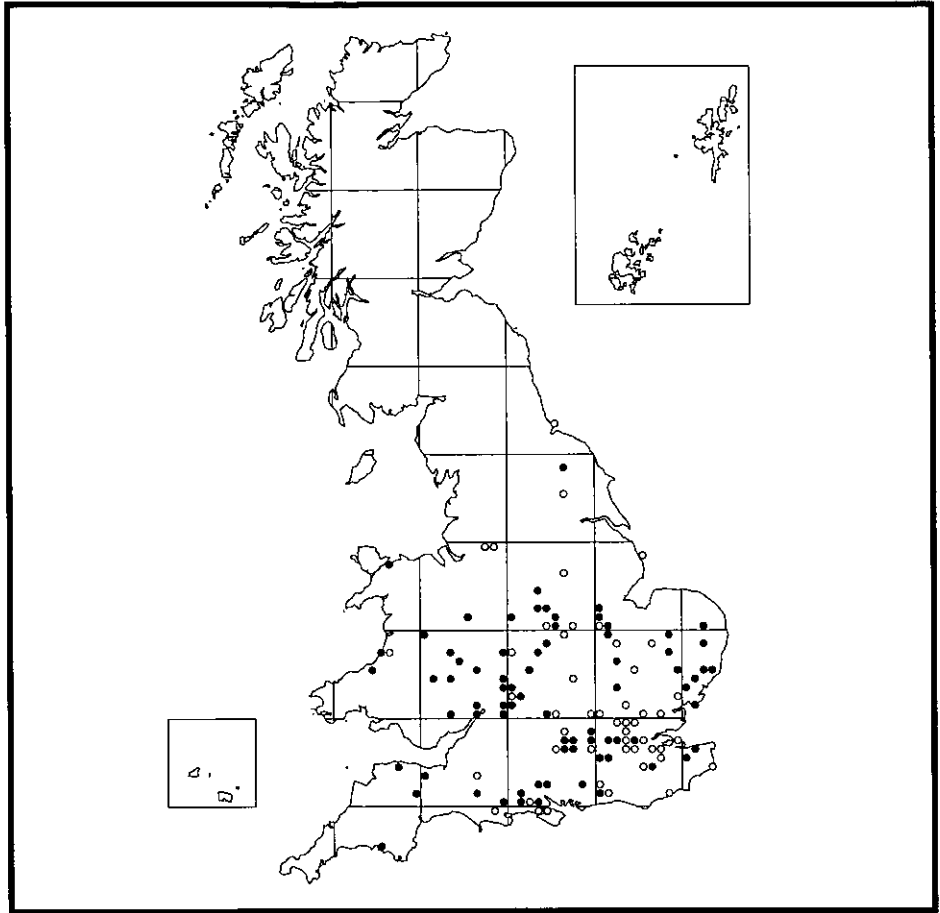
Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984), Hickin (1963)

Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963), Hickin (1987)

Distribution Bílý and Mehl (1989), Hyman and Parsons (1992), Uhthoff-Kaufmann (1990c)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987), Hyman and Parsons (1992), Uhthoff-Kaufmann (1990c)

Found in woodland, scrub and hedgerows where it is associated with a variety of trees, particularly oak (*Quercus* spp.) and alder (*Alnus glutinosa*). Adults occur from April to August.



Threat status None

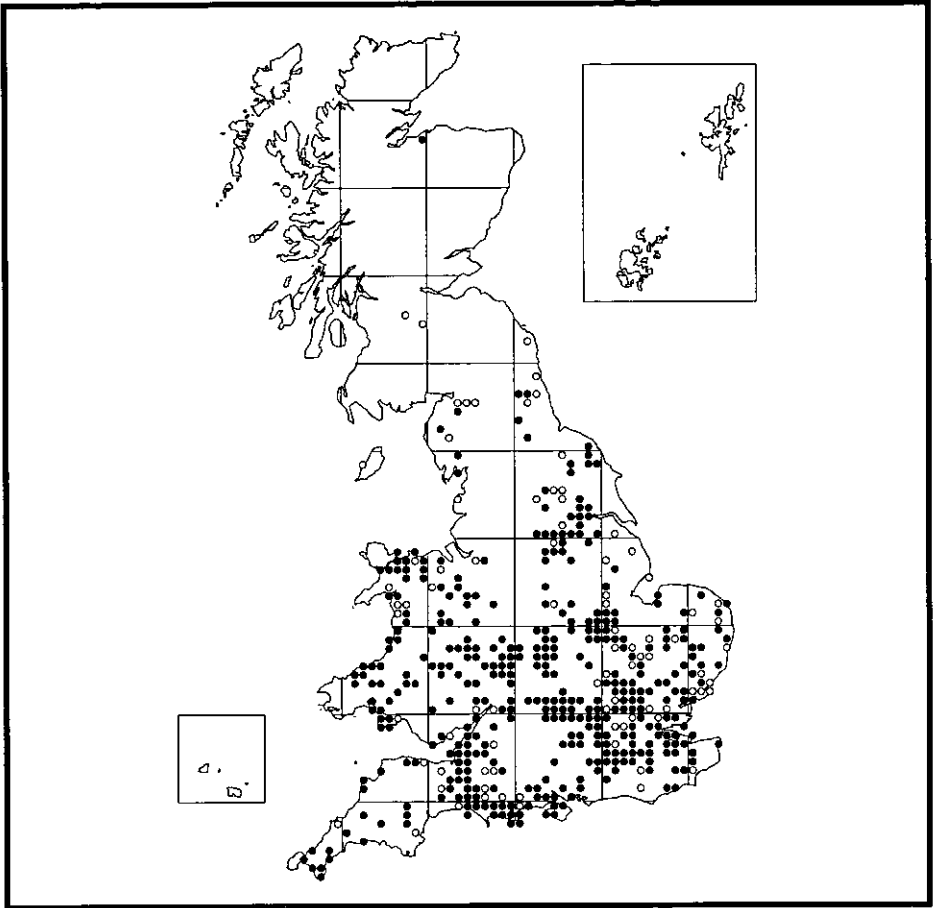
Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987)

Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963), Hickin (1987)

Distribution Bílý and Mehl (1989), Hickin (1963), Ulthoff-Kaufmann (1990c)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987), Ulthoff-Kaufmann (1990c)

Polyphagous, but oak (*Quercus* spp.) is the preferred host. Adults emerge between May and July. Nocturnal.



Threat status None

Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987), Linssen (1959)

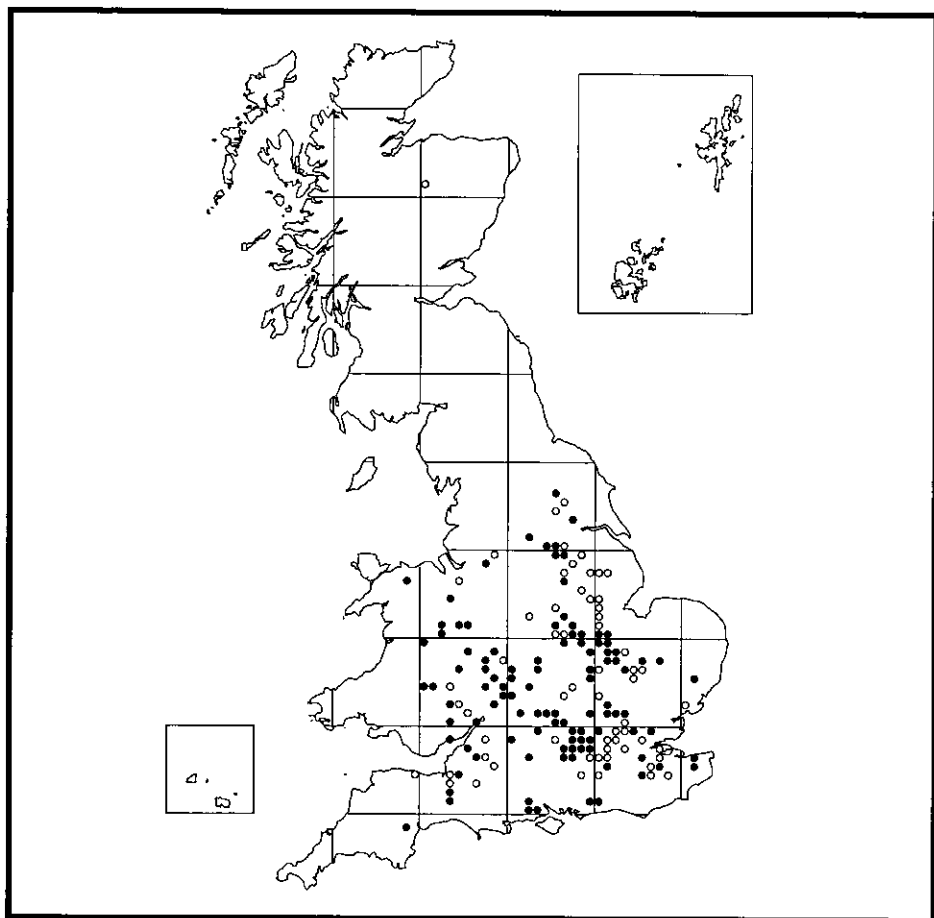
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963), Hickin (1987)

Distribution Bílý and Mehl (1989), Hickin (1963), Hickin (1987), Uththoff-Kaufmann (1990b)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987), Uththoff-Kaufmann (1990b)

A polyphagous species, often found in dry branches and posts. Adults emerge from May to July.

Map 47 *Anaglyptus mysticus* (Linnaeus 1758)



Threat status Notable B (Hyman 1986, Hyman & Parsons 1992). Not listed (Shirt 1987)

Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987), Linssen (1959)

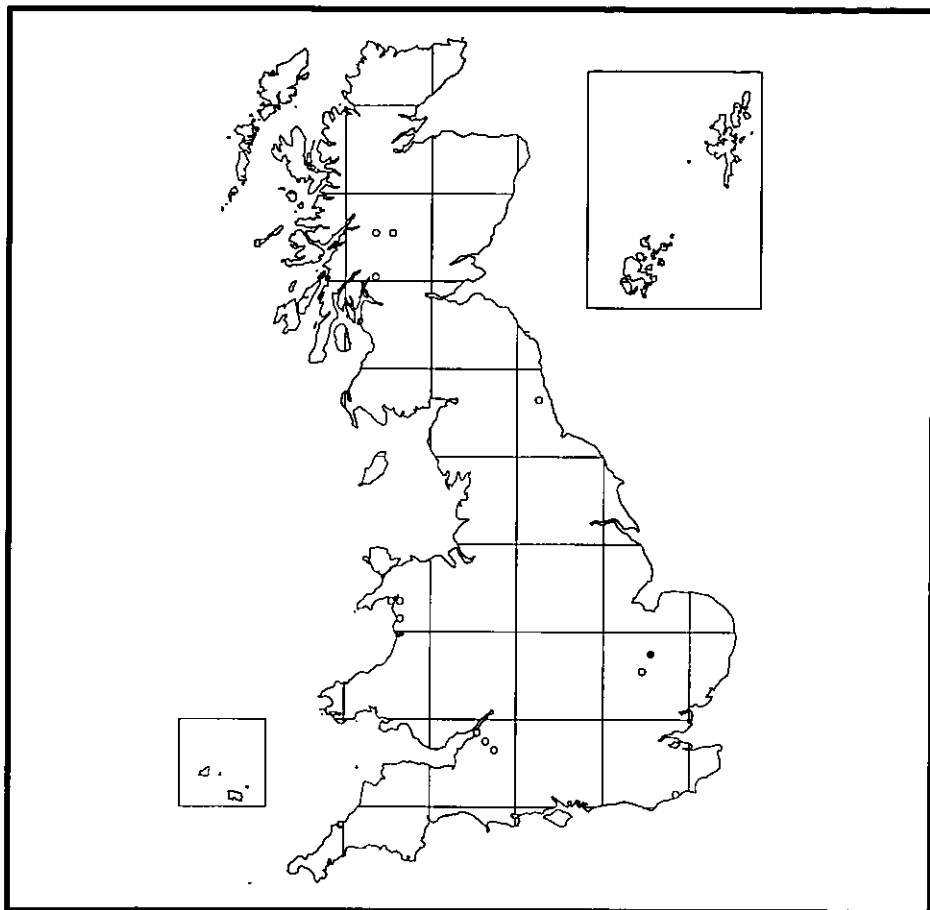
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963)

Distribution Bílý and Mehl (1989), Hyman and Parsons (1992), Uthhoff-Kaufmann (1990b)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hyman and Parsons (1992), Uthhoff-Kaufmann (1990b)

A polyphagous species, inhabiting woodland, scrub and hedgerows. The adults, which visit flowers, can be found from April to July.

Map 48 *Lamia textor* (Linnaeus 1758)



Threat status RDB 2 (Hyman 1986, Shirt 1987). Revised status RDB 1 (Hyman & Parsons 1992)

Illustration Bense (1995), Bílý and Mehl (1989), Duffy (1952), Harde (1984), Hickin (1963), Linszen (1959)

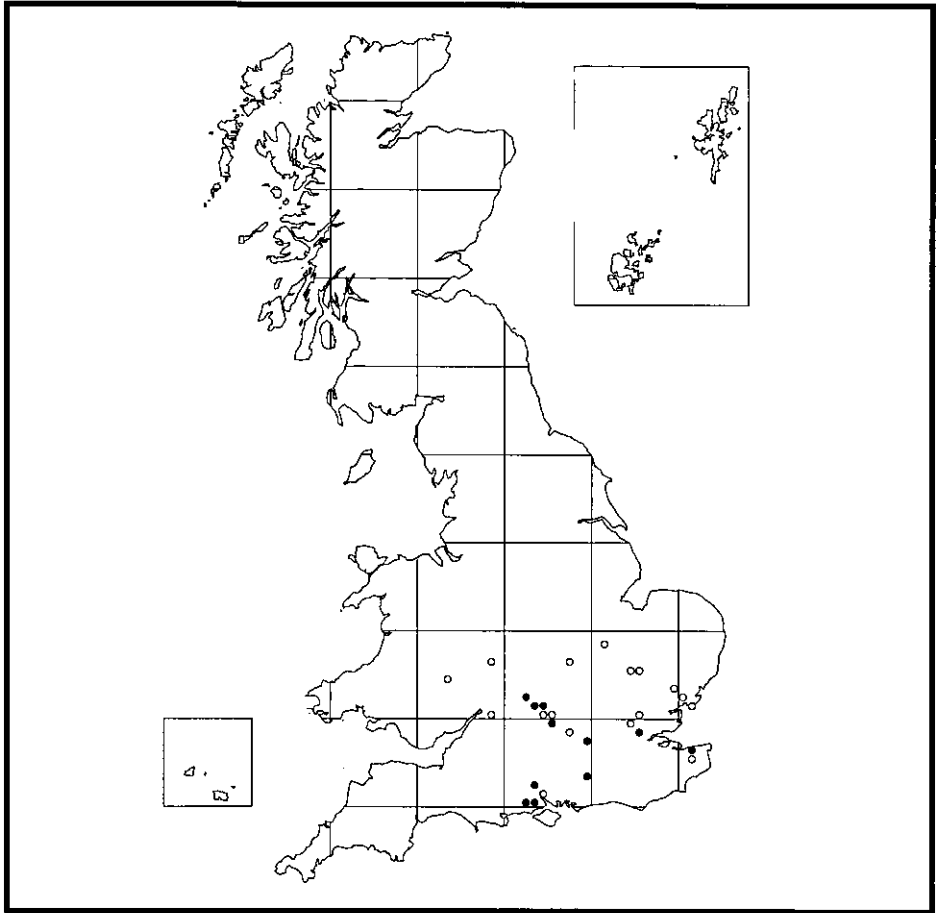
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963)

Distribution Bílý and Mehl (1989), Hyman and Parsons (1992), Uththoff-Kaufmann (1991b), Uththoff-Kaufmann (1992b)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hyman and Parsons (1992), Uththoff-Kaufmann (1991b), Uththoff-Kaufmann (1992b)

Inhabits wet woodland, where it is associated with willows (*Salix* spp.), poplars (*Populus* spp.), birch (*Betula* spp.) and other trees. Adults found in June and July. Largely nocturnal.

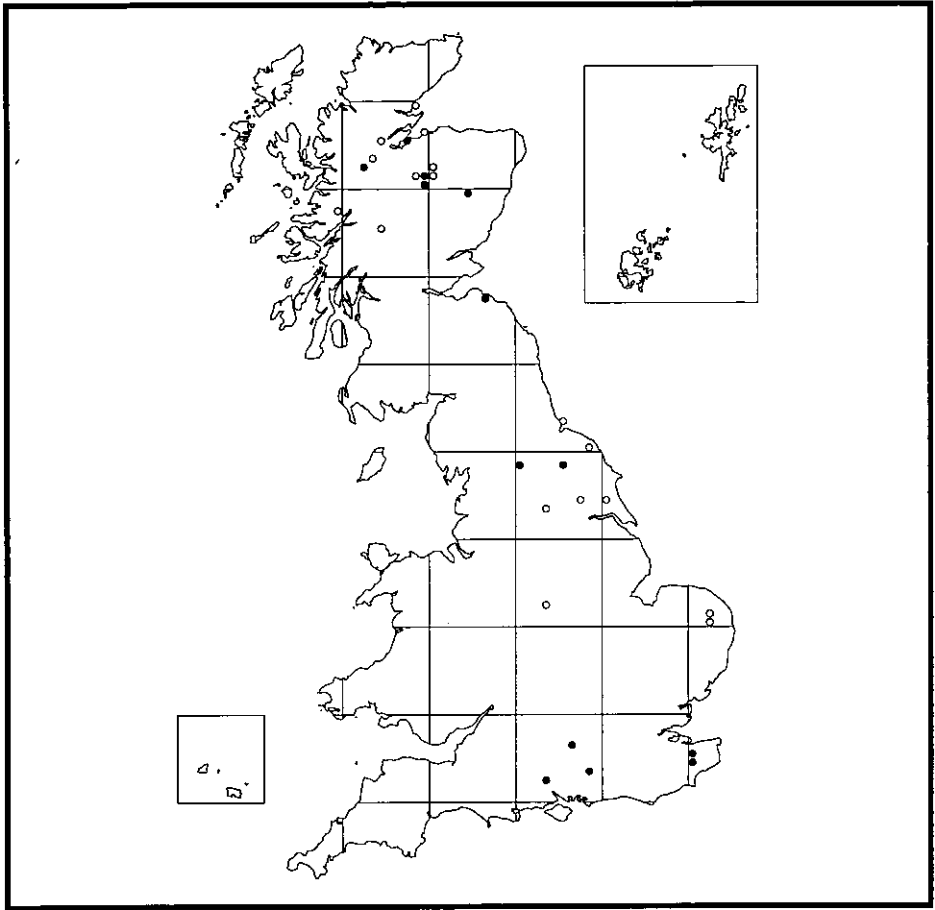
Map 49 *Mesosa nebulosa* (Fabricius 1781)



- Threat status** RDB 3 (Hyman 1986, Shirt 1987, Hyman & Parsons 1992)
- Illustration** Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987), Linssen (1959)
- Description/key** Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963)
- Distribution** Bílý and Mehl (1989), Hickin (1963), Hickin (1987), Hyman and Parsons (1992), Uhthoff-Kaufmann (1991b)
- Biology and habitat** Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hyman and Parsons (1992), Uhthoff-Kaufmann (1991b)

Found in broad-leaved and pasture woodland, mainly associated with oak (*Quercus* spp.), but also utilising other tree species. Adults are active from March to August, after eclosion (emergence from the pupal case) in the previous year.

Map 50 *Pogonocherus fasciculatus* (Degeer 1775)



Threat status Notable B (Hyman 1986, Hyman & Parsons 1992). Not listed (Shirt 1987)

Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984), Hickin (1963)

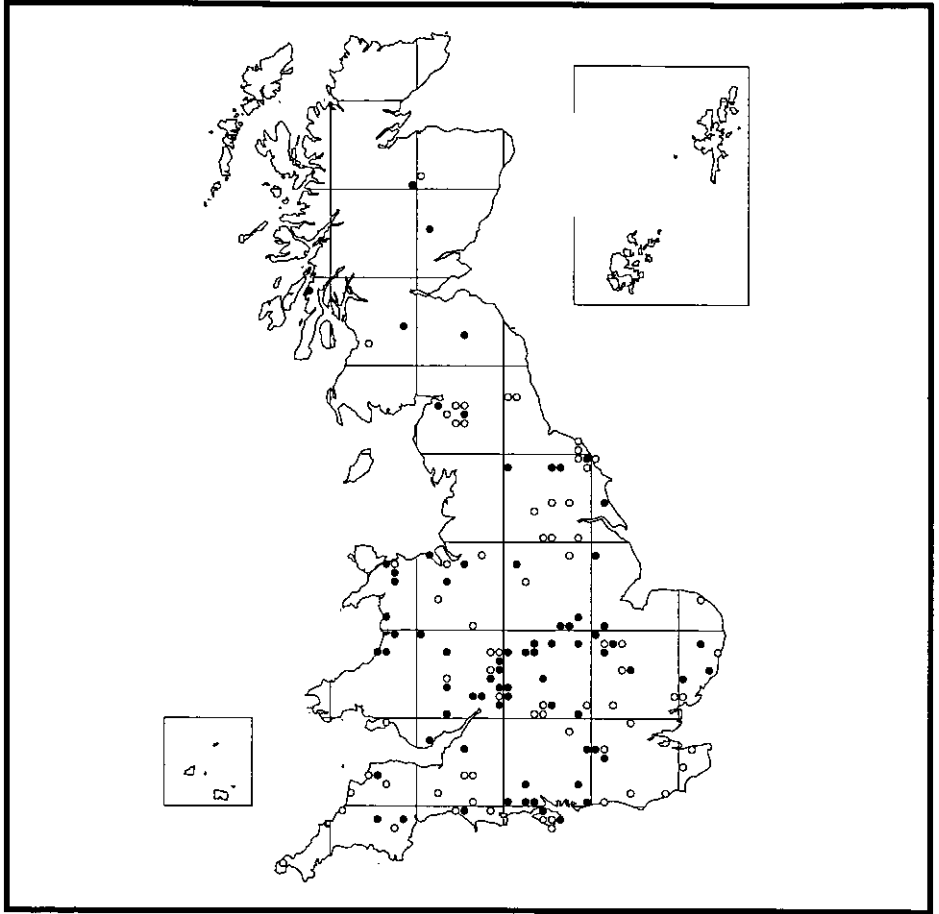
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Harde (1984), Hickin (1963), Hickin (1987)

Distribution Bílý and Mehl (1989), Hickin (1963), Hyman and Parsons (1992), Uhthoff-Kaufmann (1991e)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hyman and Parsons (1992), Uhthoff-Kaufmann (1991e)

Found in coniferous woodland, associated particularly with Scots pine (*Pinus sylvestris*). Adults are recorded from April to September.

Map 51 *Pogonocherus hispidulus* (Piller and Mitterpacher 1783)



Threat status None

Illustration Bense (1995), Bílý and Mehl (1989), Duffy (1952), Harde (1984), Hickin (1963), Hickin (1987)

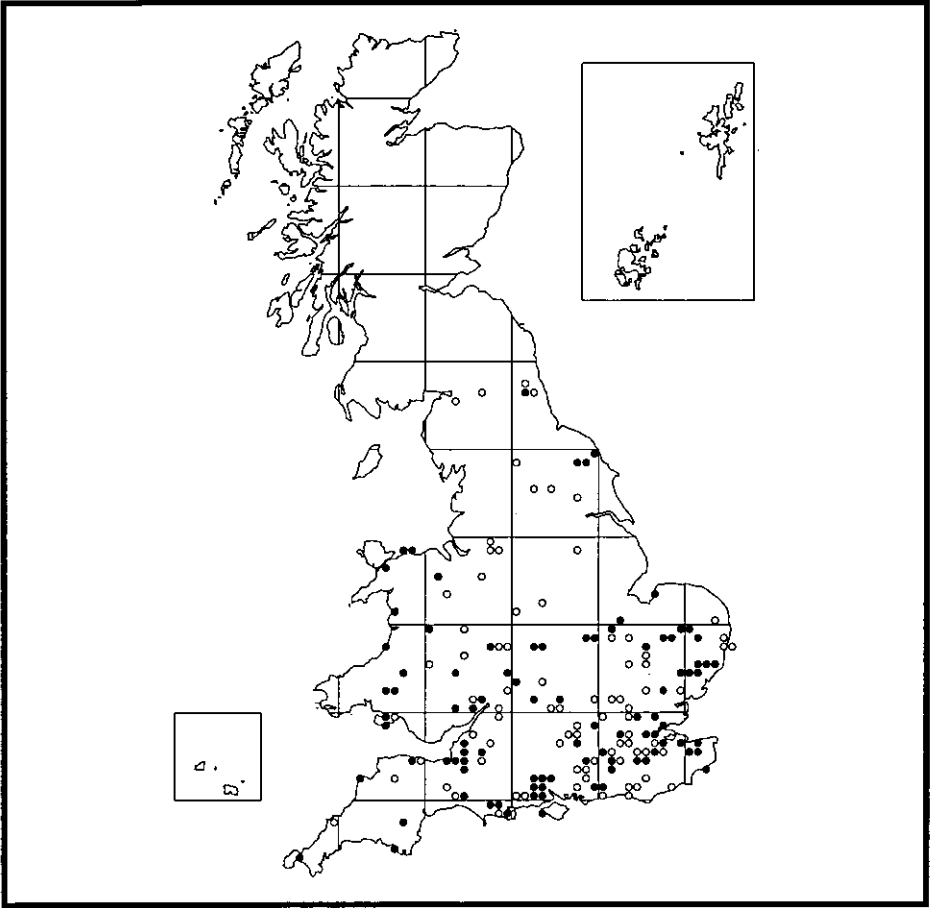
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Harde (1984), Hickin (1963), Hickin (1987)

Distribution Bílý and Mehl (1989), Hickin (1963), Uthhoff-Kaufmann (1991e)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Uthhoff-Kaufmann (1991e)

Polyphagous. Adults are said to occur from March to late October.

Map 52 *Pogonocherus hispidus* (Linnaeus 1758)



Threat status None

Illustration Duffy (1952), Harde (1984), Hickin (1963), Hickin (1987)

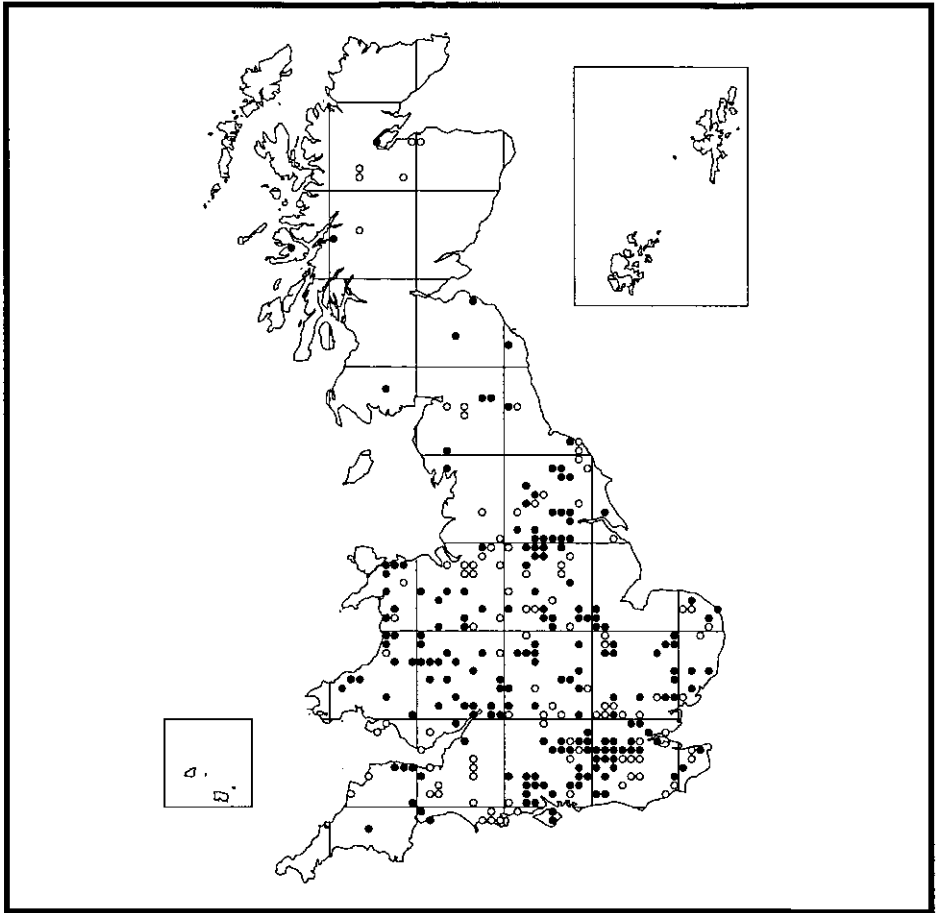
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963), Hickin (1987)

Distribution Bílý and Mehl (1989), Hickin (1963), Hickin (1987), Uththoff-Kaufmann (1991e)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987), Uththoff-Kaufmann (1991e)

The larvae are found in a wide range of trees. Adults occur from April to September.

Map 53 *Leiopus nebulosus* (Linnaeus 1758)



Threat status None

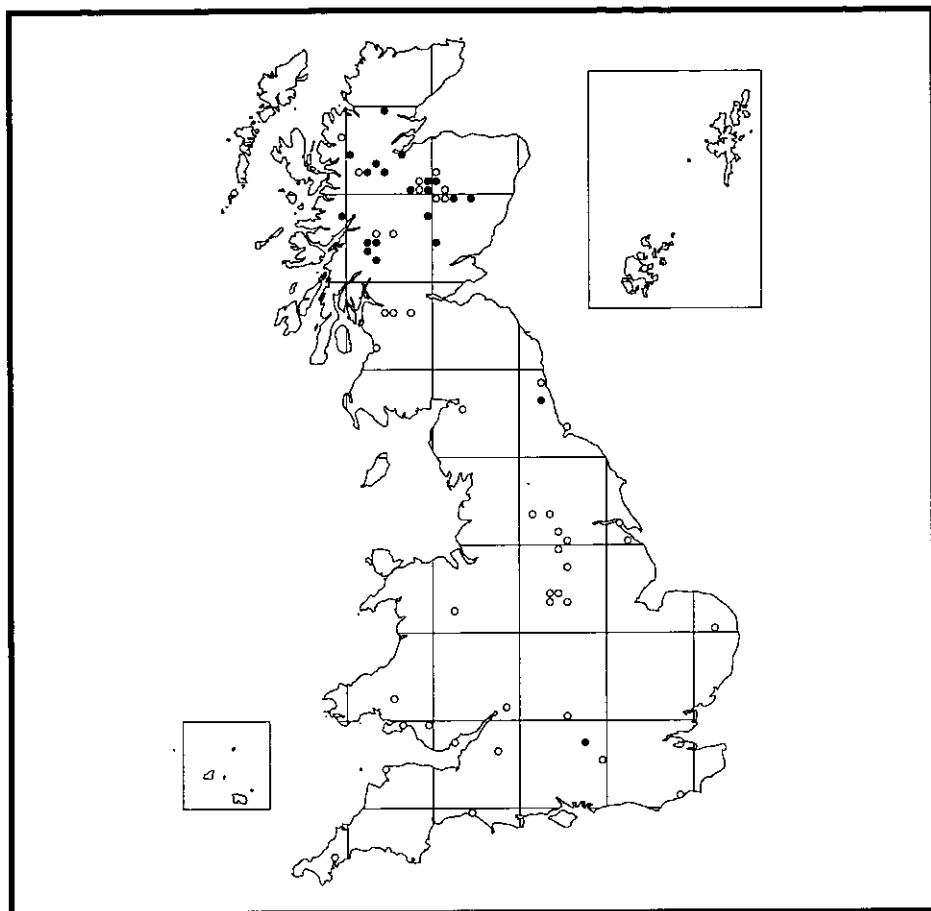
Illustration Bílý and Mehl (1989), Harde (1984), Hickin (1963),
Linssen (1959)

Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin
(1963)

Distribution Bílý and Mehl (1989), Duffy (1952), Hickin (1963),
Uthhoff-Kaufmann (1991b)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963),
Uthhoff-Kaufmann (1991b)

Found in the dead and decaying branches of several species of deciduous trees and rarely in Scots Pine (*Pinus sylvestris*) and spruce (*Picea* spp.). Adults occur from April to August.



Threat status Notable B (Hyman 1986, Hyman & Parsons 1992). Not listed (Shirt 1987)

Illustration Bense (1995), Bílý and Mehl (1989), Duffy (1952), Harde (1984), Hickin (1963), Hickin (1987)

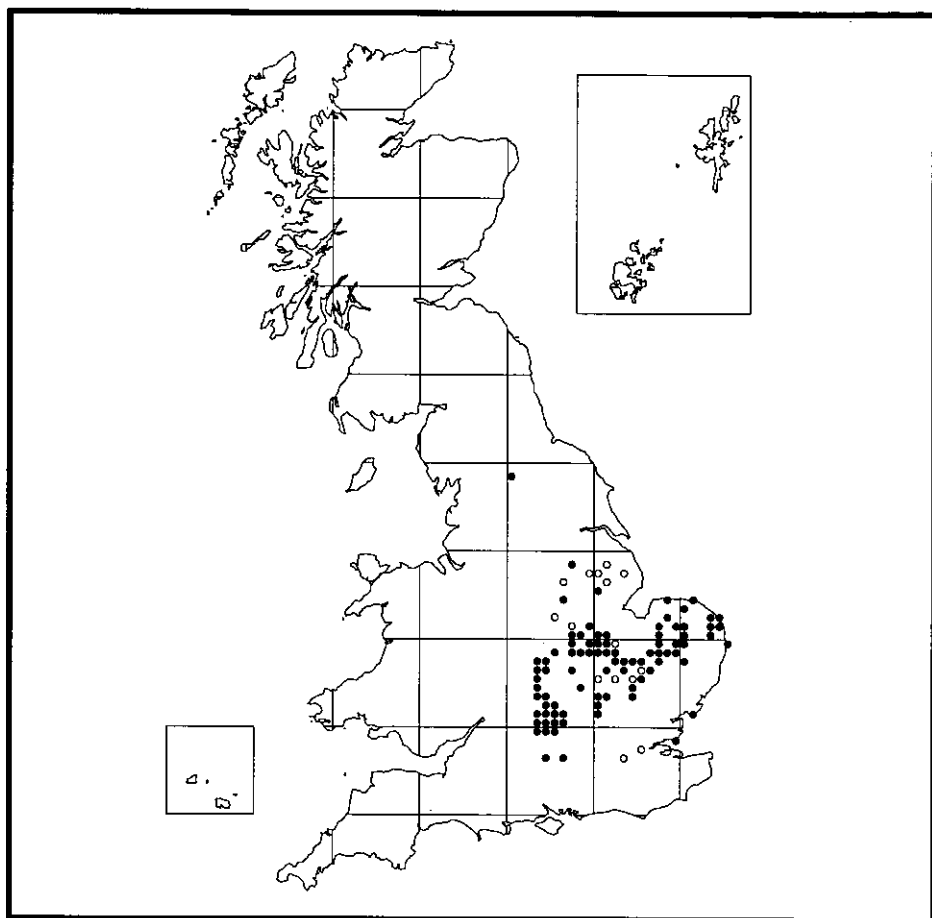
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Harde (1984), Hickin (1963), Hickin (1987), Uthhoff-Kaufmann (1991d)

Distribution Bílý and Mehl (1989), Duffy (1952), Hickin (1963), Hickin (1987), Hyman and Parsons (1992), Uthhoff-Kaufmann (1991d)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987), Hyman and Parsons (1992), Uthhoff-Kaufmann (1991d)

Found in coniferous woodland, associated particularly with Scots pine (*Pinus sylvestris*). Adults emerge in August and September.

Map 55 *Agapanthia villosviridescens* (Degeer 1775)



Threat status Notable B (Hyman 1986). Not listed (Hyman & Parsons 1992, Shirt 1987)

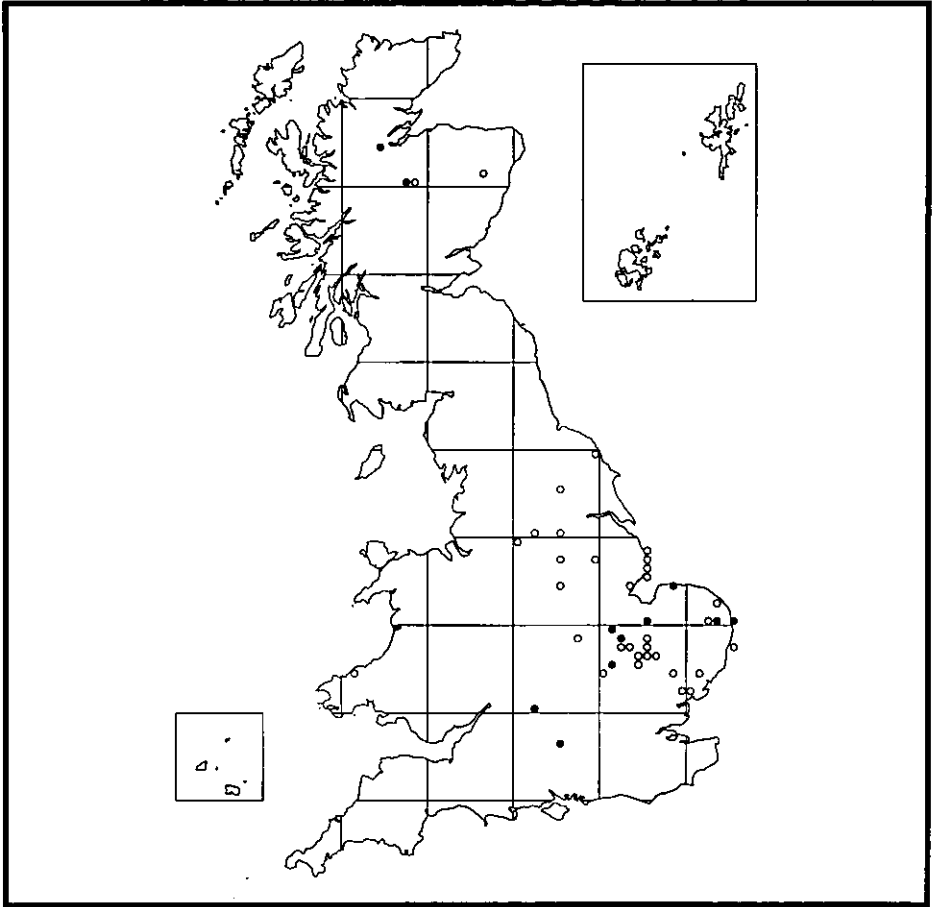
Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984), Hickin (1963)

Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963), Hickin (1987)

Distribution Bílý and Mehl (1989), Hickin (1963), Uthhoff-Kaufmann (1991d)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987), Uthhoff-Kaufmann (1991d)

Larvae feed in the stems of herbaceous plants, mainly thistles (*Carduus* spp. and *Cirsium* spp.) and hogweed (*Heracleum sphondylium*). Adults occur from April to October.



Threat status Notable A (Hyman 1986, Hyman & Parsons 1992). Not listed (Shirt 1987)

Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987), Linssen (1959)

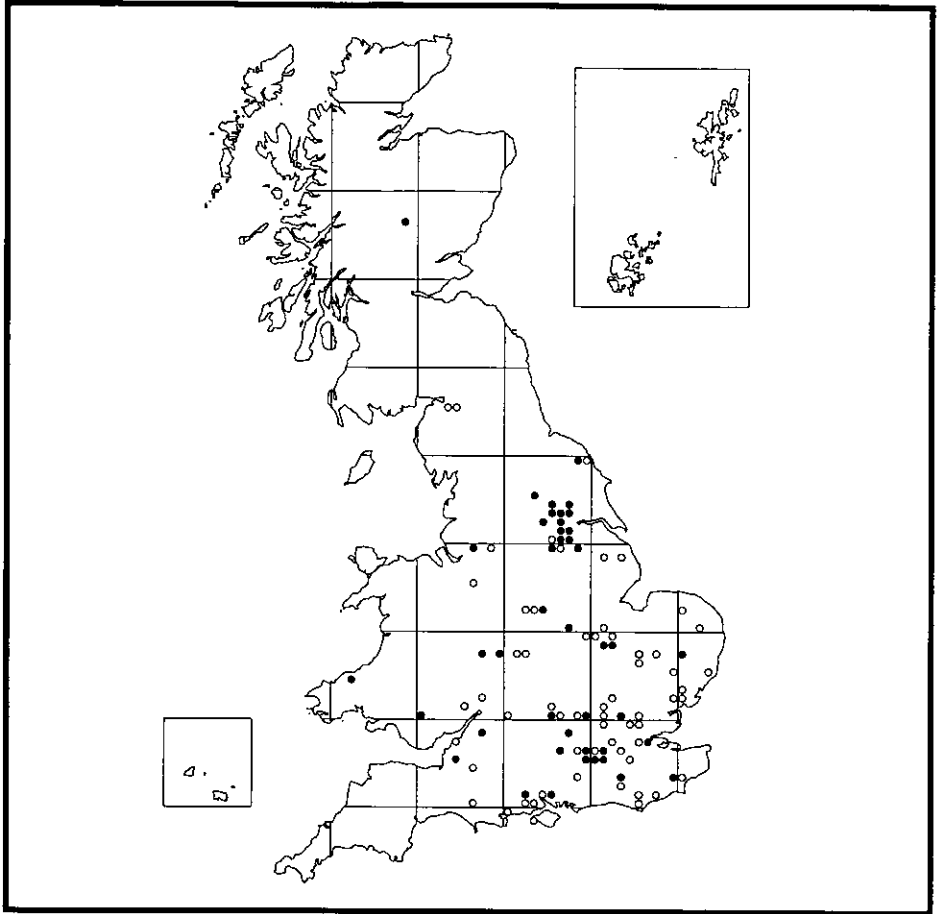
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Harde (1984), Hickin (1963), Hickin (1987)

Distribution Bílý and Mehl (1989), Hyman and Parsons (1992), Uthhoff-Kaufmann (1991c)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987), Hyman and Parsons (1992), Uthhoff-Kaufmann (1991c)

Polyphagous, but particularly associated with poplars (*Populus* spp.) and willows (*Salix* spp.). Adults emerge in July and August, and may be found until October.

Map 57 *Saperda populnea* (Linnaeus 1758)



Threat status

None

Illustration

Bense (1995), Bílý and Mehl (1989), Harde (1984), Hickin (1963), Linszen (1959)

Description/key

Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963), Hickin (1987)

Distribution

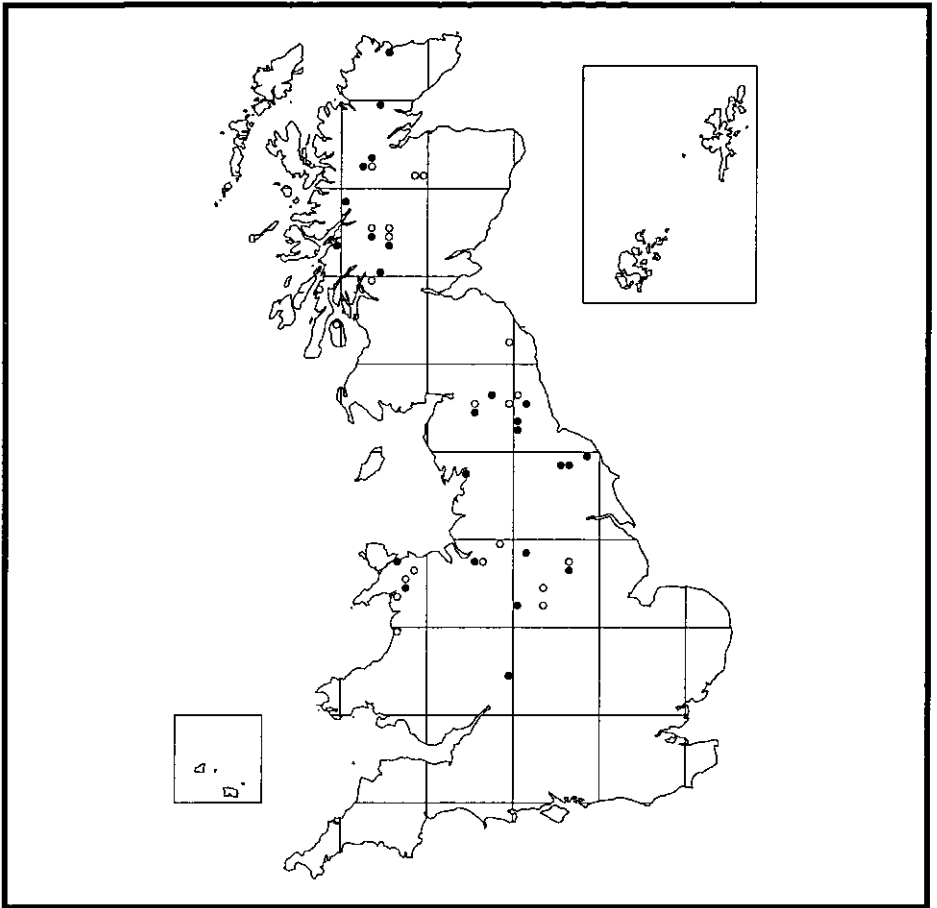
Bílý and Mehl (1989), Hickin (1987), Uthhoff-Kaufmann (1991c)

Biology and habitat

Bílý and Mehl (1989), Harde (1984), Hickin (1963), Uthhoff-Kaufmann (1991c)

Associated with poplars (*Populus* spp.) and willows (*Salix* spp.). Adults occur from May until July.

Map 58 *Saperda scalaris* (Linnaeus 1758)



Threat status Notable A (Hyman 1986, Hyman & Parsons 1992). Not listed (Shirt 1987)

Illustration Bense (1995), Bílý and Mehl (1989), Duffy (1952), Harde (1984), Hickin (1963), Hickin (1987), Linszen (1959)

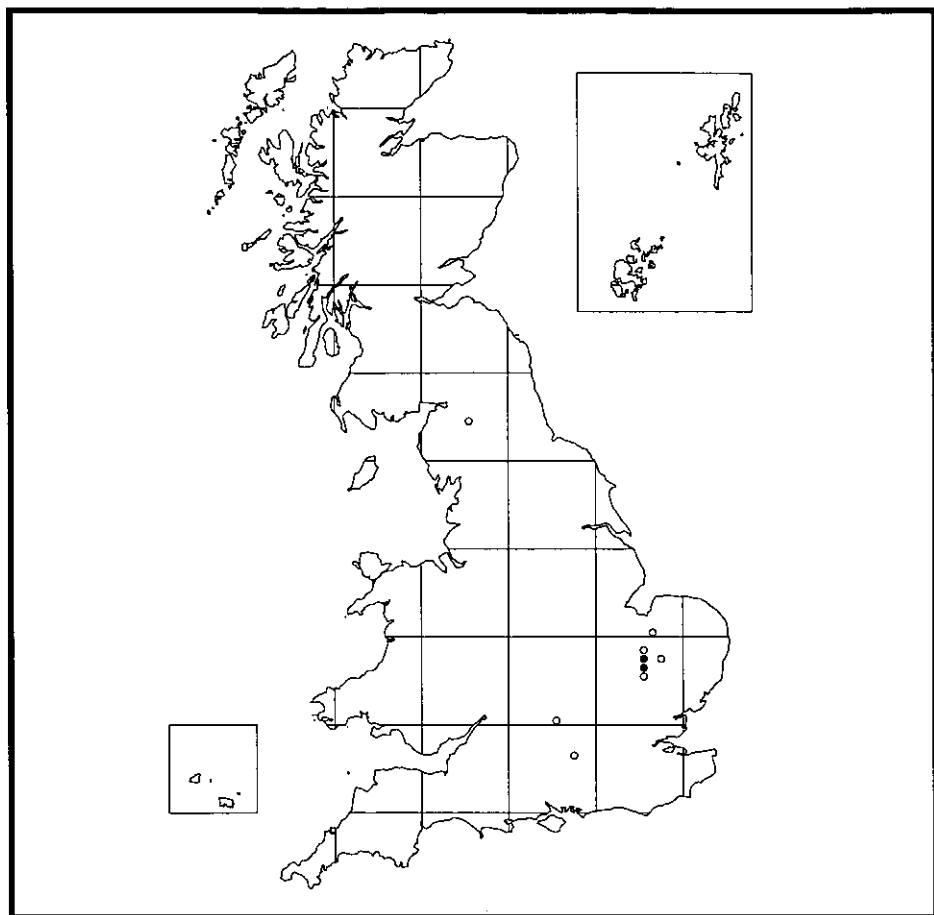
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Harde (1984), Hickin (1963), Uthhoff-Kaufmann (1991c)

Distribution Bílý and Mehl (1989), Duffy (1952), Hyman and Parsons (1992), Uthhoff-Kaufmann (1991c)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hyman and Parsons (1992), Uthhoff-Kaufmann (1991c)

Found in dying and decaying trees of a variety of species. Adults occur from April to August, flying readily in sunshine.

Map 59 *Oberia oculata* (Linnaeus 1758)



Threat status RDB 1 (Hyman 1986, Shirt 1987, Hyman & Parsons 1992). A declining species in the UK (UK Biodiversity Steering Group 1995). Priority species (UK Biodiversity Group 1998)

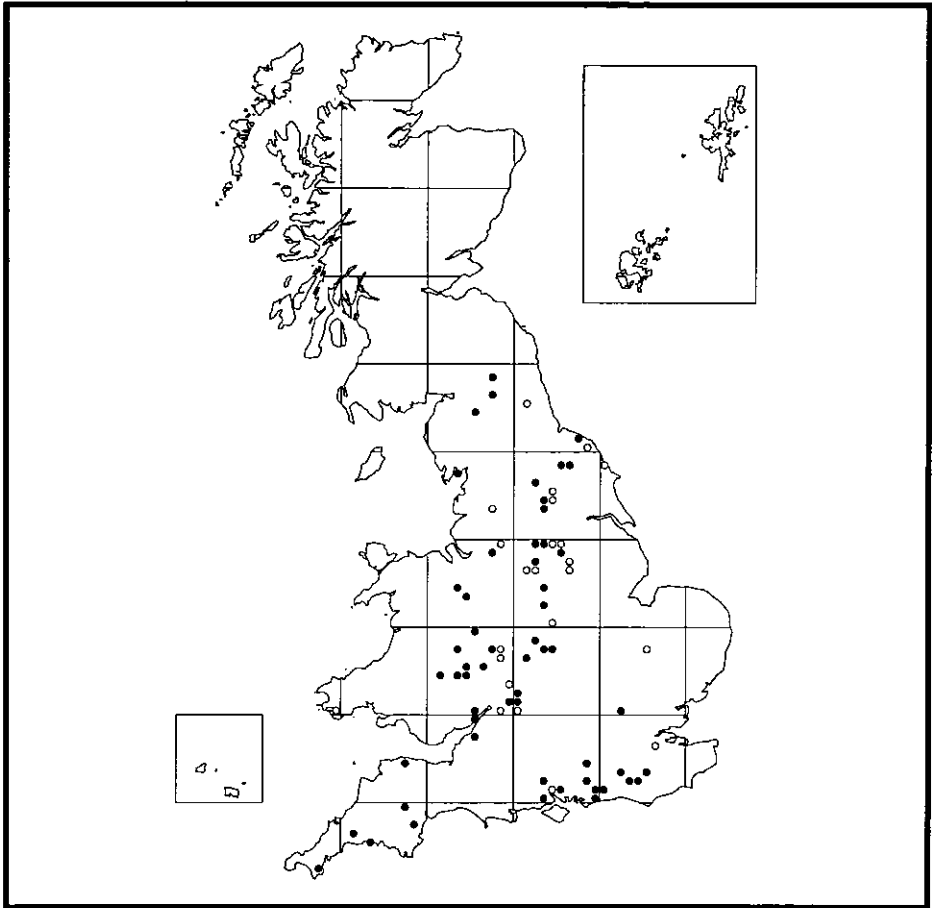
Illustration Bense (1995), Bílý and Mehl (1989), Duffy (1952), Harde (1984), Hickin (1963)

Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Harde (1984), Hickin (1963), Hickin (1987)

Distribution Bílý and Mehl (1989), Hickin (1963), Hickin (1987), Hyman and Parsons (1992), Uhthoff-Kaufmann (1992a), Uhthoff-Kaufmann (1992b)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987), Hyman and Parsons (1992), Uhthoff-Kaufmann (1992a)

Found in fens and marshes, where the larvae feed in willow (*Salix* spp.). Most adult records are from July and August.



Threat status Notable B (Hyman 1986, Hyman & Parsons 1992). Not listed (Shirt 1987)

Illustration Bense (1995), Harde (1984), Hickin (1963)

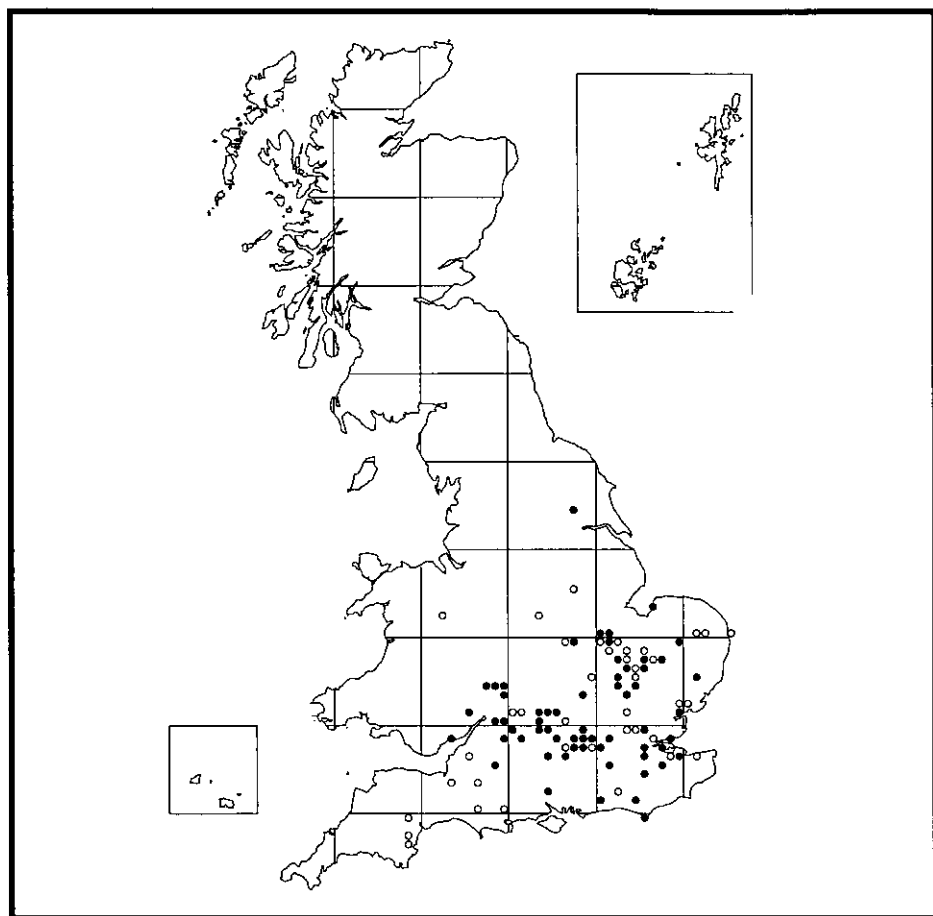
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963), Hickin (1987) (as *Stenostyla ferrea* (*sic*))

Distribution Bílý and Mehl (1989), Hyman and Parsons (1992), Uththoff-Kaufmann (1992a)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Hickin (1987), Hyman and Parsons (1992), Uththoff-Kaufmann (1992a)

Found in broad-leaved woodland and parkland, where it is particularly associated with lime trees (*Tilia* spp.). Adults occur from May to July.

Map 61 *Phytoecia cylindrica* (Linnaeus 1758)



Threat status Notable B (Hyman 1986, Hyman & Parsons 1992). Not listed (Shirt 1987)

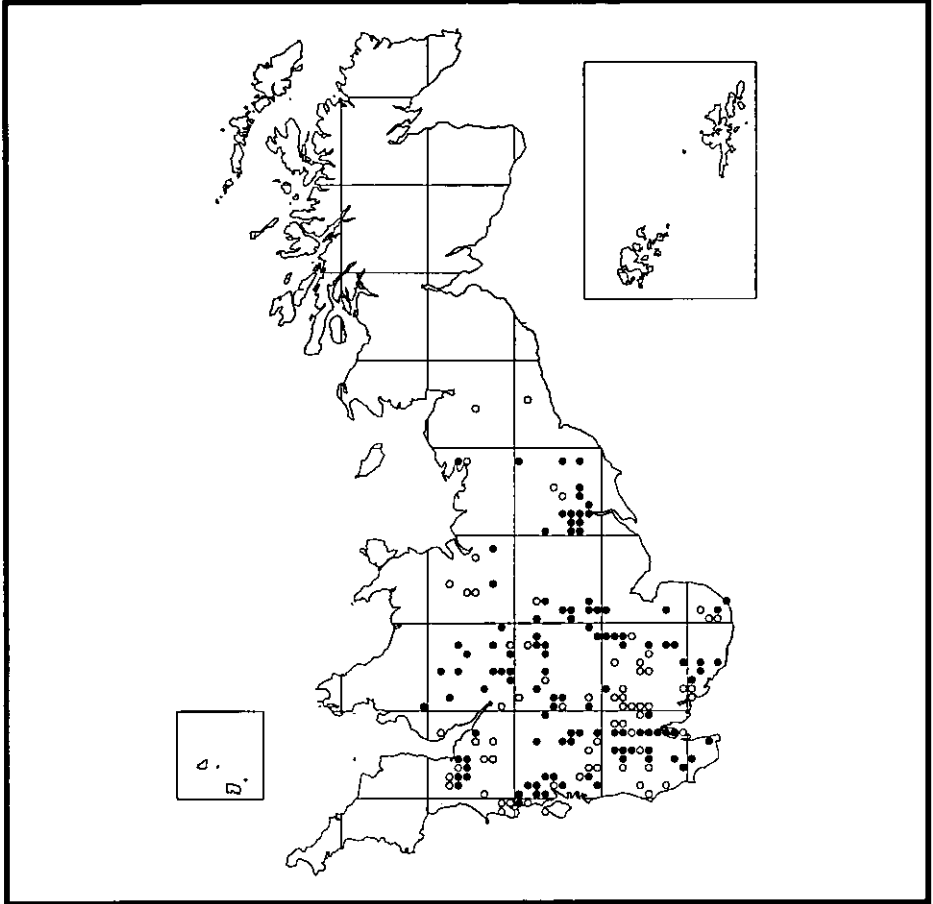
Illustration Bense (1995), Bílý and Mehl (1989), Hickin (1963)

Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963), Hickin (1987)

Distribution Bílý and Mehl (1989), Hickin (1963), Hickin (1987), Hyman and Parsons (1992), Uhthoff-Kaufmann (1992a)

Biology and habitat Bílý and Mehl (1989), Hickin (1963), Hickin (1987), Hyman and Parsons (1992), Uhthoff-Kaufmann (1992a)

Found in hedgerows, field margins and roadsides. Larvae are found in umbellifers (Apiaceae) including bur chervil (*Anthriscus caucalis*). Adults visit flowers and can be found from March to July.



Threat status None

Illustration Bense (1995), Bílý and Mehl (1989), Harde (1984), Hickin (1963), Linssen (1959)

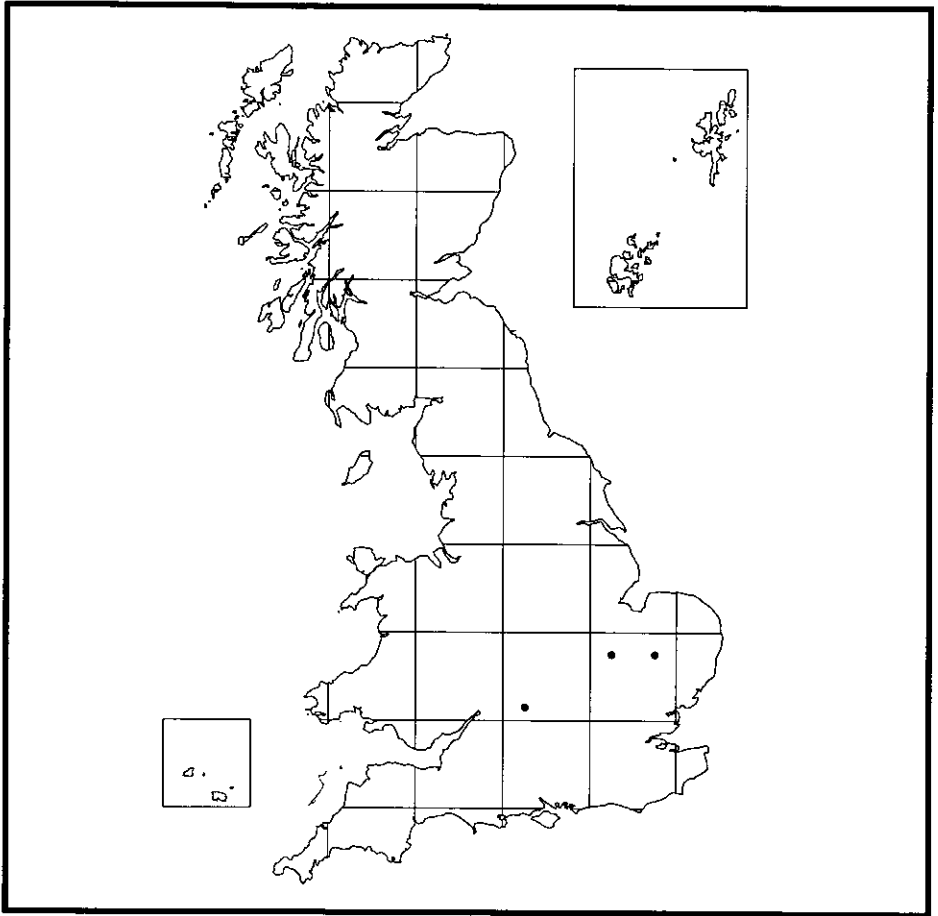
Description/key Bense (1995), Bílý and Mehl (1989), Duffy (1952), Hickin (1963)

Distribution Bílý and Mehl (1989), Uhthoff-Kaufmann (1992a)

Biology and habitat Bílý and Mehl (1989), Harde (1984), Hickin (1963), Uhthoff-Kaufmann (1992a)

Larvae are polyphagous. Adults may be found on a wide variety of trees from April to October.

Map 63 *Tetrops starkii* Chevrolat 1859



Threat status Insufficiently known (Hyman & Parsons 1994)

Illustration Bense (1995), Bílý and Mehl (1989)

Description/key Bense (1995), Bílý and Mehl (1989)

Distribution Bense (1995), Bílý and Mehl (1989)

Biology and habitat Bílý and Mehl (1989)

Reported to be associated mainly with ash (*Fraxinus excelsior*) and field maple (*Acer campestre*) in continental Europe. According to Welch (1998b), it has been recorded in Britain at three sites, by beating oak (*Quercus* spp.) and the blossom of hawthorn (*Crataegus* spp.) and once by sweeping woodland ride vegetation. British records have been in late May and June.

ACKNOWLEDGEMENTS

A national Recording Scheme for Cerambycidae was initiated by Jonathan Cooter in 1982 and the present organiser, Peter Twinn, took on the organisation of the Scheme in 1986, thanks to a suggestion by Clive Carter, formerly of the Forestry Commission.

Many individuals have contributed records to the Recording Scheme which are now incorporated into the database summarised in this *Atlas*. In many cases these records have been compiled by individuals from museum and personal collections. The efforts of all these contributors who are too numerous to list individually are greatly appreciated.

Staff at the Biological Records Centre, Monks Wood have contributed to the preparation of this *Atlas* in many ways, especially Val Burton and Wendy Forrest (data input), Henry Arnold (data management), Cynthia Davies and Bill Meek (collation of information for the species accounts) and Mark Telfer (preparation of the table of synonymies).

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APPENDIX 1 - SOURCES OF RECORDS

Records have been obtained from a limited number of museum collections and from runs of some journals. Records from museum collections have been kindly provided by museum staff. Almost all records from journals have been extracted by Peter Twinn.

1 Museums¹ housing collections from which data have been extracted

Booth Museum, Brighton
Bristol City Museum and Art Gallery
Buckinghamshire County Museum
Carlisle Museum and Art Gallery
Clifton Park Museum, Rotherham
Colchester and Essex Museum
Doncaster Museum and Art Gallery
Dorset County Museum
Dundee Museum and Art Gallery
Glasgow Museum and Art Gallery
Hampshire County Museum Service
Hancock Museum, Newcastle upon Tyne
Inverness Museum and Art Gallery
Leicestershire Museum Service
Liverpool Museum and Art Gallery
Ludlow Museum
Maidstone Museum and Art Gallery
Manx Museum
Oxfordshire County Museum
Paisley Museum
Perth Museum and Art Gallery
Reading Museum and Art Gallery
Royal Museum of Scotland
Southend-on-Sea Museum
Sunderland Museum
Yorkshire Museum

2 Journals and serial publications

Entomologist's Gazette
Nature in Wales
The Coleopterist
The Entomologist's Monthly Magazine
The Entomologist's Record and Journal of Variation
Transactions of the Lincolnshire Naturalists' Union
Transactions of the Malvern Naturalists Field Club
The Vasculum
Victoria County Histories

¹ Museum names are correct at the time of the receipt of data

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