

The Coleopterist

Volume 6 Part 2 ♦ July 1997

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The Coleopterist

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Stephostethus alternans (Mannerheim) (Latridiidae), a species new to Britain

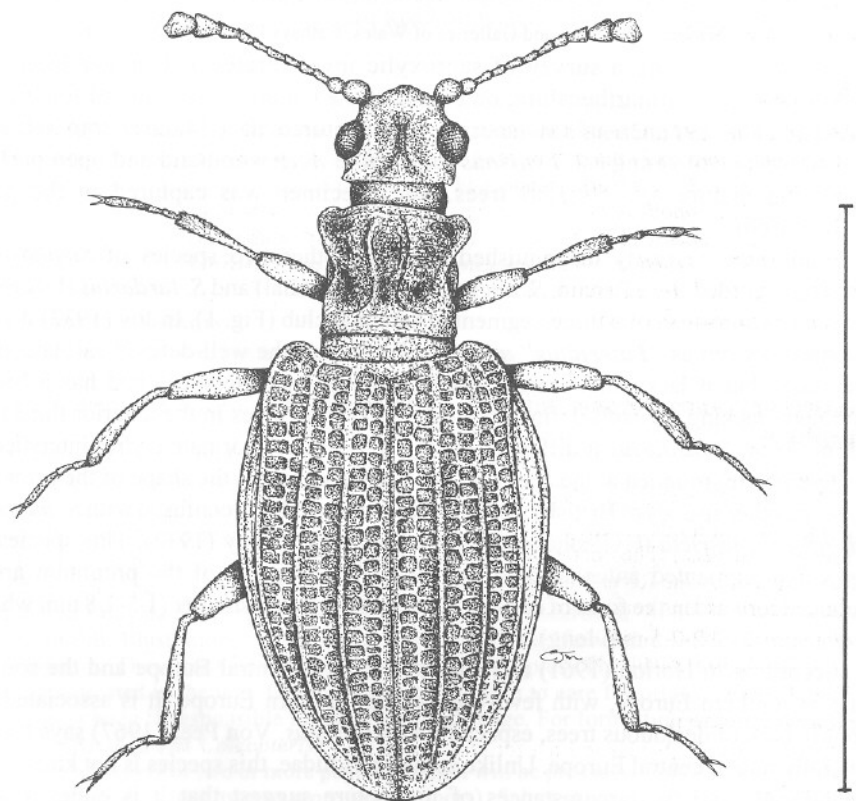
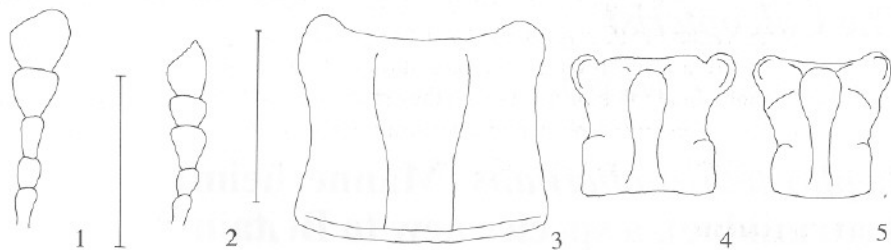
B. Levey

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While undertaking a survey of saproxylic invertebrates at Dinefwr Deer Park, Llandeilo, Carmarthenshire, on behalf of the Countryside Council for Wales, a single female specimen of this species was captured in a Malaise trap set at the interface between young ash *Fraxinus* / sycamore *Acer* woodland and open parkland containing mature oak *Quercus* trees. The specimen was captured in the period 22-31.v.1996.

S. alternans is easily distinguished from the other two species of *Stephostethus* LeConte recorded from Britain, *S. angusticollis* (Gyllenhal) and *S. lardarius* (Degeer), in having a two- instead of a three-segmented antennal club (Fig. 1). In Joy (1932) it would probably key out as "*Lathridius*" *angusticollis*, due to the well-defined carinate elytral interstices, but it lacks short raised setae on the elytral interstices and has a broader pronotum, lacking the well-defined oblique transverse ridges in the anterior third (Figs. 4 & 6). From *S. lardarius* it differs in having well-defined carinate elytral interstices, in the elytra being rounded at the apex and not navicular, and in the shape of the pronotum. Only one other species of British Latridiidae could possibly be confused with *S. alternans*: *Cartodere constricta* (Gyllenhal), placed in *Lathridius* in Joy (1932). This species also has a two-segmented antennal club, but the anterior angles of the pronotum are not produced forward in the form of ear-like lobes and the size is smaller (1.5-1.8 mm whereas *S. alternans* is 2.2-2.5 mm long).

According to Horion (1961) this species occurs in central Europe and the southern parts of northern Europe, with few records from western Europe. It is associated with mouldy bark of deciduous trees, especially beech *Fagus*. Von Peez (1967) says that it is generally rare in central Europe. Unlike some Latridiidae, this species is not known to be synanthropic and the circumstances of its capture suggest that it is either a scarce long-established species, or more probably a recent immigrant which has arrived by means of long-distance dispersal. As pointed out by Hammond (1974) many of the Coleoptera species which are recent colonists in Britain are either certainly or probably mould-feeders. It will be interesting to see if this species, which appears to be scarce in Europe, becomes as widespread as some other immigrant mould-feeders, e.g. *Aridius bifasciatus* (Reitter) (Latridiidae) and *Caenoscelis subdeplanata* Brisout (Cryptophagidae).



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Figs. 1-2: *Stephostethus* antennae (scale = 0.25 mm): 1 *S. alternans*; 2 *S. angusticollis*.
 Figs. 3-5: *Stephostethus* pronota (scale = 0.5 mm): 3 *S. lardarius*; 4 *S. alternans*;
 5 *S. angusticollis*.
 Fig. 6: *S. alternans* female habitus (scale = 2.0 mm).

Like *S. alternans*, some other apparently very recent immigrant species, e.g. *Cicones undatus* Guérin-Méneville (Colydiidae) and *Hadrognathus longipalpis* (Mulsant & Rey) (Staphylinidae), are not recorded from or are rare in countries having a cool temperate, western marginal climate like ours. Perhaps the establishment of these species in Britain is a consequence of the recent trend towards warmer summers; if so, we may expect more species from the warmer regions of Europe to become established.

Acknowledgements

I extend my thanks to Colin Johnson for confirming the identity of this species and for useful discussion concerning its biology and distribution, and to Chris Meechan for the habitus drawing.

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Record of *Amara praetermissa* (Sahlberg) (Carabidae) from West Cumbria

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Among some carabids recently determined for me by Dr Martin Luff was one specimen of *Amara praetermissa*. The beetle was found on May 5th 1996 in flood debris on the edge of a tidal saltmarsh by the River Irt near Drigg, Cumbria (SD 0696). This would appear to be the second record of this carabid from Cumbria: one specimen was found by Roger Key in the Clints Quarry Nature Reserve near Egremont (NY 0012) in 1985 (Key & Parsons, 1989).

According to Hyman (1992), *A. praetermissa* is a Notable B species and is widespread but local in Britain.

Acknowledgement

I wish to thank Dr Martin Luff for kindly identifying my specimen of *A. praetermissa*.

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***Cassida denticollis* Suffrian (Chrysomelidae) in Sussex**

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Cassida denticollis Suffrian was recorded from Sussex by H.S. Gorham, who took two specimens in flood rubbish from the River Adur at Shipley near Horsham, West Sussex (TQ 12) in October 1882 (Gorham, 1885). There are two unpublished records for East Sussex (R.G. Booth, pers. comm.): Ditchling, 1908 and 1909 by H.C. Dollman and Barcombe, 1928 and 1932 by C.J. Saunders. Shirt (1987) lists *C. denticollis* as RDB3 - Rare, but Hyman (1992) has provisionally upgraded it to RDB1 - Endangered, since there are evidently no known recent (post-1969) records from anywhere in the British Isles. The following occurrence of the species in East Sussex is therefore of national significance.

On 27th August 1996, whilst carrying out a survey of insects for East Sussex County Council along the northern verge of the A27 trunk road between Lewes and Falmer, adjacent to Long Hill, East Sussex (TQ 3709), two specimens of a green tortoise beetle with a red scutellary area were taken from a vacuum sample, using a Flymo BVL 320 adapted to collect terrestrial insects. Much of this particular sample was taken from clumps of Yarrow *Achillea millefolium* growing close to the tarmac footpath at the base of a steep south-facing chalky bank. One specimen was positively identified as *Cassida prasina* Illiger (Chrysomelidae), a Nationally Scarce (Nb) species, but the other appeared to differ markedly and, using Mohr (1966), it keyed out to *C. denticollis*. Also in the sample were single specimens of two other Nationally Scarce (Nb) beetles associated with Yarrow: *Microplontus triangulum* (Boheman) and *Trichosirocalus barnevillei* (Brisout) (Curculionidae).

Kevan (1963) provides useful descriptions and a key to *C. denticollis* and its close British relatives. He also discusses at length all the known British records for the species. However, after studying all the available descriptions, it was decided that because *C. denticollis* and *C. prasina* closely resemble each other, the two *Cassida* specimens should be sent to Dr Roger Booth for his opinion and he has confirmed that my original determinations were indeed correct. Although there are several minor external differences between *C. denticollis* and *C. prasina*, perhaps the most convincing is the presence of distinct black-edged crenulations along the base of the elytra in *C. denticollis*, which are much less pronounced in *C. prasina*.

Acknowledgement

I would like to thank Dr Roger Booth for confirming the identification of my specimen of *C. denticollis* and extracting data from the Natural History Museum (London) collections.

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Revision of Bullock's Irish Clambidae, with two species new to Ireland

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Introduction

During a recent visit to the Natural History Museum of Ireland, Dublin, I was able to locate and borrow for further study all specimens of Clambidae from the Bullock collection. Edwin F. H. Bullock (1879-1965), born in Dorset, lived in Killarney from around 1912 until the end of his life. He was the last of the great local collectors in Ireland, having collected when weather permitted every day for more than 50 years, usually within a few miles of his house and especially in the Muckcross Estate (Beirne, 1985). After his death, his collection, which comprised several tens of thousands of beetles, many unfortunately having been badly affected by dirt and mould whilst in his cottage (Flesk View House, the converted stables of a long-gone mansion), was acquired by the Museum in Dublin.

This collection is one of the most important Irish collections and provides a wealth of material from the Killarney district (vice-county of North Kerry). Having already studied Bullock's Atomariinae (Cryptophagidae) for the Atlas (Johnson, C., 1993) as well as all the Ptiliidae (Atlas in prep.), I was familiar with the collection's potential for revealing new and interesting records amongst small and obscure beetles, which can only be accurately identified by the use of modern techniques and studies.

The taxonomy of British Clambidae is treated in the R.E.S. Handbooks for the Identification of British Insects series where nine species are recognised (Johnson, C., 1966). Subsequently, much new distributional and ecological data, especially on the rarer species, resulted in a recent bionomic review of the British fauna (Johnson, C., 1992). No Irish records are mentioned in either of these works however, reflecting the absence of such specimens in U.K. collections generally.

Revised Records of Bullock

Calyptomerus dubius (Marsham). Only represented in the collection by a series of English specimens. As the species is one without identification problems, we can accept records of its widespread occurrence in Ireland from the literature (Johnson & Halbert, 1902), where the earliest records date back to 1847.

Clambus armadillo (Degeer). The most numerous species in the collection, 33 correctly named specimens collected between May 1915 and April 1950 in various spots around Killarney: Ardagh, Ballycishane, Bunroe, Flesk, Gap of Dunloe, Muckcross, Muckcross Point and Ross; limited habitat data gives garden (1), in moss (1), Flesk refuse (1) and flood refuse (5). Published records of this species are usually reliable and its

presence in Ireland has been known since the time of Haliday (1854) (Johnson & Halbert, 1902).

Clambus evae Endrödy-Younga - New to Ireland. This is one of the four modern species which wrongly stood in older British collections under the name *minutus* (Sturm), and under which latter name it was recorded from Killarney in flood refuse (Bullock, 1928). There are 12 specimens from the Killarney localities of Beaufort, Lissiveen and Muckcross collected between February 1924 and February 1948; 1 specimen was found in flood refuse.

Clambus pallidulus Reitter - New to Ireland. This is another of the species mixed up under the name *minutus* in older collections, although two of Bullock's specimens were standing over *punctulum* (Beck). He only collected this rare species around Killarney on two occasions: in February 1918 (1 male and 1 female), and at Flesk in April 1939 (1 male).

Clambus pubescens (Redtenbacher). Represented by 4 specimens from Killarney collected during March 1915, and also recorded from that district (Bullock, 1928). The first published Irish record was from County Sligo (Johnson, W.F., 1905) and the species is usually correctly identified in collections. I have also seen a specimen collected at Glasnevin (Co. Dublin), 4th July 1923, by J.N. Halbert, in the Dublin collections.

Clambus punctulum (Beck). There are 11 specimens of this species, some of which had been mixed up with *minutus* in the collection, from Killarney, including Flesk, collected between August 1913 and April 1952; 2 specimens were from a wall and 2 from a garden. A Killarney record had already been published (Bullock, 1928). Because of possible confusion with a further British species (*gibbulus* LeConte (= *radula* Endrödy-Younga)), old literature records of *punctulum* (e.g. Nicholson, 1913) cannot be accepted until the relevant specimens have been traced and critically studied.

Acknowledgements

This paper was only made possible through the kind help and cooperation of a number of colleagues, museums and organisations. My best thanks are due to: Jim P. O'Connor, for his generous hospitality, valuable discussions, loan arrangements and collection study facilities in the Natural History Museum, Dublin; U.K. Systematics Forum, for funding the visit which was the third meeting for Collection Managers of Major U.K. Insect Collections, organized especially by Mark Shaw, Mike Fitton and Emma Watson; Robert Nash, Ulster Museum, Belfast, for access to a draft copy of a proposed new checklist of Irish Coleoptera.

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Abraeus granulum Erichson (Histeridae), new to Yorkshire

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Four specimens of this small histerid were obtained from the thoroughly rotted heartwood of a fallen trunk in a narrow strip of woodland at Worsbrough Country Park, 3 miles south of Barnsley, South Yorkshire, in December 1996. This species is rated Notable A in Hyman (1992) and a Grade 1 Ancient Woodland Indicator in Harding & Rose (1986). I am informed by Bob Marsh, the county recorder, who kindly checked the identification, that *A. granulum* has not been recorded previously in Yorkshire, having a predominantly southern distribution in England where it is widespread but very local.

The specimens were found by Mr Denis Giggall, of Barnsley, a relative newcomer to Coleoptera, who had also discovered, in November 1996, in the same area, examples of *Eledona agricola* (Herbst) (Tenebrionidae), *Aderus populneus* (Creutzer in Panzer) (Aderidae) and *Quedius ventralis* (Aragona) (Staphylinidae), all rated Notable B in Hyman (1992, 1994) and found only rarely in the north of England. It would appear that Mr Giggall's careful collecting is beginning to reveal a regionally significant site for dead-wood and associated fungal habitat beetles which had hardly been suspected, despite the area's fine reputation generally amongst local naturalists past and present (see Robertson, 1996).

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Letter

Correction

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With reference to my recent note (*Coleopterist* 5(3):89), I should have included *Aphthona herbigrada* (Curtis) and *A. nigriceps* (Redtenbacher) as having previously been recorded from Cumbria and vice-counties 69 and 70. This now brings the total number of *Aphthona* Dejean species recorded from the county to six.

***Agrilus sinuatus* (Olivier) (Buprestidae) widespread in Shropshire**

K. N. A. Alexander

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At the time, the discovery of *Agrilus sinuatus* in Shropshire (Lott & Alexander, 1992) was a surprise, as the record extended the known British range considerably. However, further searching in the county during 1996 has revealed it to be widespread there:

Loton Park (SJ 3514), 27.vii.1996; an old deer park, still with rough pasture and many old hawthorns *Crataegus*.

Dudmaston Estate (SO 766876), 30.vii.1996; in old hedgerow hawthorns on estate boundary at Ridney Hill.

Long Mynd SSSI (SO 443931), 31.vii.1996; in old pasture hawthorns on lower slopes, above Church Stretton.

Walcot Park (SO 345838), 29.vii.1996; a former deer park, this particular area still ancient pasture-woodland.

All of these records are for the characteristic larval borings and exit-holes of the adult beetles, as described in Alexander (1990).

Hyman (1992) gives the beetle's status as Notable A, i.e. believed to occur in between 16 and 30 of the 10 km squares of the National Grid. The discovery that recording is best targeted at the borings and exit-holes has led to an explosion of records. The Cantharoidea & Buprestoidea Recording Scheme currently is aware of 53 10 km squares with modern records. This expansion of records in no way suggests an expansion of the beetle's actual range, reflecting more the increased awareness of how to locate the species.

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***Cantharis paludosa* Fallén (Cantharidae) in Somerset**

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Cantharis paludosa has to my knowledge only been found once in south-west England: S. Grove swept one in a valley mire on Lee Moor, Dartmoor (SX 5664), 19.vi.1990, during a biological survey for the National Trust. A rather dubious record from Somerset was wisely dismissed by Duff (1993).

On 7.vi.1995, however, I swept this beetle in small numbers in a valley mire during a survey of Alderman's Barrow Allotment on Exmoor (SS 847419). This constitutes the first definite record for the county. It seems highly probable that the species will be found to be more widespread in valley moors on both Exmoor and Dartmoor, and probably even Bodmin Moor in E. Cornwall; none of these areas are very well known for Coleoptera.

Reference

DUFF, A. 1993. *Beetles of Somerset: their status and distribution*. Taunton: Somerset Archaeological & Natural History Society.

Some recent checklists and catalogues of European Coleoptera, with particular reference to Curculionoidea

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The last ten years have seen the publication of a remarkably large number of faunal lists, catalogues and other accounts of the Coleoptera, or restricted groups of beetles, of a wide range of European countries. Most of these publications include a high proportion of British species and raise interesting points of comparison in the fields of taxonomy, nomenclature, biodiversity and zoogeography. As some of these works will be unfamiliar to British coleopterists, an attempt has been made to provide an annotated account of the more important publications. Catalogues which cover only some families, or other groups, are not included except in the case of Curculionoidea. The works are considered in alphabetical order by country.

Austria. The whole of the country is covered by Lucht (1987).

'Baltic States'. As noted under *Estonia*, the amalgamated list for Estonia, Latvia and Lithuania (Silfverberg, 1979) has now been updated and subdivided for each of the three Baltic countries (Silfverberg, 1992).

Belgium. Records of Coleoptera from this country are combined with those from The Netherlands and Luxemburg in a 'Benelux' division of Lucht (1987).

Czech Republic. Jelínek (1993) covers the Coleoptera of the former state of Czechoslovakia in a detailed work in which families or major groups are treated individually by specialists. Separate indications are given for the occurrence of species in Bohemia and Moravia (including Silesia) and Slovakia is also covered (see below). The classification adopted is conservative in parts, at least at the family level, but this is a good modern checklist. Czechoslovakia as a whole is also covered by Lucht (1987).

Denmark. The Coleoptera are covered by two recent publications. Silfverberg (1992) includes Danish records of beetles in his more comprehensive work. However, Hansen (1996) provides a more detailed account in which valuable taxonomic and classificatory material is given in both Danish and English (in parallel columns of the text). Distributional data are given for the 'faunistic districts' of Denmark in the familiar chart-type matrix of species against districts.

Estonia. Silfverberg (1992) has updated his valuable lists of the Coleoptera of Fennoscandia and Denmark (1979) by separating records for Estonia, Latvia and Lithuania, which were amalgamated in his earlier work (Silfverberg, 1979).

'**Fennoscandian Russia**'. Karelia is one of the divisions adopted by Silfverberg (1992).

Finland. The Coleoptera are covered by Silfverberg (1992).

France. Only a very small part of eastern France (Alsace-Lorraine) is included in Lucht (1987), which covers all of the Coleoptera. For the Curculionoidea, Tempère & Péricart (1989) provide a good checklist with some useful annotations. However, as their work is essentially an updating of Hoffmann (1950, 1954, 1958), the Anthribidae, Cimberidae (Rhinomaceridae), Urodontidae, Scolytidae and Platypodidae are not included (i.e. the list covers Curculionidae in the old pre-Crowsonian sense).

Germany. The whole of Germany is covered by Lucht (1987), but as his work was written before reunification there are separate lists for the political divisions of East and West Germany. Dieckmann's (1972-1988) detailed treatment of the Curculionoidea of the former East Germany includes checklists and distribution charts for the administrative divisions of the country, but not all groups of weevils were covered before his death.

Ireland. A comprehensive annotated checklist, which details all additions to the Irish coleopterous fauna since the publication of Johnson & Halbert (1902) is expected shortly (Anderson, Nash & O'Connor, in press). This will update the recent checklist which covered only the Curculionoidea (Morris, 1993a). An account of the Curculionoidea, including distributional data based on vice-counties, was produced by Morris (1993b).

Italy. The Curculionoidea (excluding Scolytidae and Platypodidae) are covered by the fine modern list of Abbazzi & Osella (1992). Notable features of the list are the careful attention given to classification and nomenclature, the listing of regions of occurrence using the Italian administrative divisions, and the enumeration of records from each division. The catalogue includes 2,001 species of which 960 have been recorded from Piedmont and 890 from Tuscany. British coleopterists may be surprised at the very high degree of endemism of the Italian weevil fauna, not just on the islands of Sicily and Sardinia but also on the mainland.

Latvia and Lithuania. See *Estonia*.

Luxemburg. See *Belgium*.

Netherlands. Dutch records of all Coleoptera are subsumed in the 'Benelux' division of Lucht's (1987) catalogue. However, a modern annotated checklist of the Curculionoidea

(excluding Scolytidae and Platypodidae) of The Netherlands and adjacent regions was produced by Heijerman (1993). A considerable number of species has been added to the Dutch fauna in recent years. [Species so far known to occur only in adjacent countries are distinguished by a dash and it was a failure to appreciate this point that led to the erroneous statement in Fowles & Morris (1994) that *Apion aciculare* Germar (Brentidae) has been recorded from The Netherlands; the opportunity is taken here to correct this mistake.]

Norway. One of the countries whose Coleoptera are listed in Silfverberg (1992).

Poland. Mroczkowski & Stefanska (1991) provide a checklist of the Coleoptera of Poland in the *Checklist of Animals of Poland* series edited by Józef Razowski. This is a particularly well-annotated and critical list, with notes (781 of them) on particular species in both Polish and English. Poland is also covered (in its entirety) by Lucht (1987). Much more detailed works on the occurrence of Curculionoidea in Poland, with charts of their distribution based on divisions of the country, are nearing publication in the *Katalog Fauny Polski (Catalogus Faunae Poloniae)* series (Burakowski, Mroczkowski & Stefanska, 1992, 1993, 1995). The volumes so far published include: Anthribidae, Scolytidae, Platypodidae, Rhinomaceridae, Attelabidae and Apionidae (1992), Curculionidae Otiorhynchinae to Cossoninae (1993), and Curculionidae Bagoinae to Bardiinae (1995). The work is expected to be completed shortly.

Slovakia. See *Czech Republic*.

Sweden. The Coleoptera are covered by Silfverberg (1992). The extreme south of the country is also included in Lucht (1987), who details the districts covered.

Switzerland. Only the northern part of the country is included in Lucht (1987), which details the cantons or other areas that are covered.

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The Saproxylic Quality Index: an evaluation of dead wood habitats based on rarity scores, with examples from Wales

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The compilation of a list of beetles regarded as 'indicators of ecological continuity' by Harding & Rose (1986) undoubtedly drew attention to the significance of saproxylic Coleoptera and the importance of sites holding rich assemblages of these species. It has been an invaluable aid to gaining protection and encouraging sympathetic conservation of dead wood habitats. However, subsequent criticism of the list has centred around whether or not the species concerned do actually indicate ecological continuity (e.g. Hammond & Harding, 1991) over their British range. A list of saproxylic beetles that were confined to ancient sites throughout Great Britain would be of limited value as so few species would be represented, making it impossible to evaluate all but a handful of the largest and oldest forests and parklands. It is suggested here that conservation importance for a greater range of sites can be achieved by supplementing the Index of Ecological Continuity (Alexander, 1988) with an index based on current assessments of rarity.

In Wales only 103 species on the Harding & Rose list have been recorded to date. The maximum number of species recorded from a single site is 27 at Dinefwr Deer Park; no other Welsh site has more than 20, and only five have more than 10. With so few species available by which to compare sites it is almost impossible to evaluate the relative conservation importance of the vast majority of woods and parklands in Wales. This is almost certainly the case over much of Britain away from southern England (cf. Garland, 1983). What is required is a larger pool of species in order to rank meaningfully the conservation value of dead wood habitats across the country. A start has been made on this by Alexander (in prep.) for all saproxylic/lignicolous invertebrates. A draft copy of this provisional list (which includes 777 beetle species) was used to demonstrate the possibilities of a 'saproxylic quality index'. As 438 of these species are known from Wales, site comparisons are based on a much larger data set than with 'Harding & Rose' and they consider the entire saproxylic fauna recorded from a site. Practically all woods and parklands in Wales will support over 50 of these species and the better sites will contain well over 100.

An element of weighting needs to be given to species of conservation value in order to distinguish sites of particular importance. For water beetles, Foster (1987) proposed a geometric score based on the distribution of species within a specific area, but this information is not available for most saproxylic invertebrates. In the examples that follow, the conservation status assigned to species in the Recorder 3.21b biological recording package (Ball, 1995) has been used: *common* species nominally score 1 (but do not

contribute to the Saproxyllic Quality Score, see below); *local* and *unknown* species score 2; *regionally notable* species score 4; *Notable/Notable B* species score 8; *Notable A* and *Red Data Book K* species score 16; and *Red Data Book 1-3* and *Red Data Book Indeterminate* species score 32; *naturalised* species are ignored. *Regionally notable* status has not been uniformly assigned to saproxyllic species in Recorder at present and hence no species in the worked examples below score 4. However, a regional score could be assigned (where sufficient information exists) for the purposes of evaluating saproxyllic faunas at, for instance, vice-county or country level.

Eyre & Rushton (1989) examined several indices of rarity and species richness for ground beetles and water beetles. There were some differences between the two groups but overall they found that a 'rarity association' value was most useful in identifying potentially important sites. A slight modification of this approach is proposed here. Scores are totalled for all species scoring 2 or more and then this Saproxyllic Quality Score (SQS) is divided by the total number of saproxyllic species recorded (including the common species), multiplied by 100, to give a Saproxyllic Quality Index (SQI). I have calculated this for six sites where complete lists of saproxyllic beetles recorded are available (Table 1).

Table 1: SQI ranking of selected woodland and parkland sites

(SCORE)	Total spp.	Common	Local (2)	Not. B (8)	Not. A (16)	RDB (32)	SQS	SQI
Donington Park ¹	103	37	42	18	2	4	388	376
Attingham Park ²	103	35	44	18	5	1	344	334
Dinefwr Deer Park ³	91	29	43	17	2	-	254	279
Old Cilgwyn ⁴	71	28	33	10	-	-	146	206
Gregynog Estate ⁵	87	37	42	8	-	-	150	172
Coed Nant Llolwyn ⁶	55	30	22	1	2	-	84	153

Note: Data taken from - Lott (1995)¹; Lott & Alexander (1992)²; Alexander & Pavett (1992)³; A.P. Fowles, unpublished data⁴ & ⁶; Morgan (1996)⁵.

The most widely used system for ranking saproxyllic sites at present is the Index of Ecological Continuity (IEC) (Alexander, 1988) in which scores are allocated to 'Harding & Rose' species according to their indicator grade. The IEC for each of these sites is as follows: Donington 42, Attingham 35, Dinefwr 29, Cilgwyn 15, Gregynog 16, Nant Llolwyn 5. Donington Park, Leics., and Attingham Park, Salop, are included amongst the top thirty sites for saproxyllic Coleoptera in Britain (Harding & Alexander, 1993). Dinefwr Deer Park is number 42 in this list. The ranking by SQI does not differ markedly from that calculated using Harding & Rose species alone, except that Old Cilgwyn, Cards., is now ranked higher than Gregynog Estate, Monts.. Gregynog is certainly the better known site and correspondingly has been better worked for saproxyllic beetles, but it is also true that most of the oaks *Quercus* at Gregynog are healthy and saproxyllic habitats are relatively scarce. Old Cilgwyn has about a fifth of the number of oaks at Gregynog but

many of these are hollow and red-rotten and hence it is not entirely surprising that this site should score higher. Coed Nant Llolwyn, Cards., has been extensively studied but has a relatively low SQI. This valley woodland, which is notified as an SSSI for its plant communities, does not contain a wide range of saproxyllic habitats, and its trees are relatively young.

It is probable that any acceptable index devised to evaluate saproxyllic assemblages will produce similar rankings for the top echelon of sites. The value of the index suggested here is that SQI seems, on this limited data set, to offer a means of assessing the conservation value of a much wider range of sites than was possible using 'Harding & Rose' species. It must be stressed, however, that the above are examples only and an agreed list of saproxyllic beetles for Britain needs to be finalised before this system can be taken any further. It will also be necessary to test how much information is required before sites can be meaningfully ranked. If a single species is recorded from a site and that species happens to be nationally rare then the SQI will be very high; expert coleopterists making brief visits to sites and searching specifically for rare species can produce anomalous results. Clearly some threshold has to be established for the minimum number of species recorded from a site. Limited analysis of some beetle lists for parklands in Wales suggests that at least forty species need to be recorded before sites can be compared, but many more site lists will have to be examined before the question of threshold can be resolved.

One other significant difference between the SQI and the IEC should be pointed out. The IEC is cumulative so that recording effort is a chief factor in the ranking of sites. As SQI is directly influenced by the proportion of uncommon/scarse saproxyllic species recorded on a site (by using total saproxyllic species recorded as the divisor), the effect of recording bias is considerably lessened. However, increased recording effort is likely to result in a higher index as proportionally fewer new common species should be found at a site. As Hammond & Hine (1995) explain in relation to surveys of the saproxyllic fauna of Richmond Park (Hammond & Owen, in press):

knowledge of the occurrence of saproxyllic beetle species, and indicator species in particular, at any given site rarely accumulates in an even or predictable fashion...the relatively slow pattern of discovery for saproxyllic indicator species was not due to any sampling bias against them, and is likely to be a consequence of their specialised and often rather inaccessible habitats, coupled with the patchiness of their occurrence.

This can be shown by looking at the accumulation of data on saproxyllic species at Old Cilgwyn (Table 2).

On the first visit to Old Cilgwyn, two common longhorn beetles were recorded whilst collecting hoverflies. In December 1988 saproxyllic beetles were specifically targeted, but only in the woodland adjacent to the parkland and hence most of the species recorded were relatively common corticolous beetles. The few additions in May 1989 were again the result of casual observations of diurnal beetles at the edge of the site and it wasn't until June 1991 that the open parkland was surveyed. Here we see the index rising and further surveys in the park in August 1991 increased the index again. In March 1992 there was another visit to look for saproxyllic beetles but only five species were added to the list for the site and the index declined slightly. Further recording during a Dyfed Invertebrate

Group field meeting in June 1992 added to the number of saproxylic species recorded from Old Cilgwyn but failed to make any impression on the SQI. The records from July 1994 are the product of the Natural History Museum's visit to the site (Hammond & Hine, 1995). Although they only added six species to the overall total, these specialist coleopterists were able to find a few extra 'quality' species that had evaded capture before. The index has risen slightly but it is still not markedly different from that reached in August 1991. The preponderance of common and local species recorded on early visits effectively held the index back until the parkland proper was surveyed in June 1991. The accumulation of IEC points largely mirrors this pattern, except that the IEC increased between August 1991 and June 1992 whilst the SQI declined slightly. This can be interpreted several ways, but one way to look at it is that SQI is giving a more balanced evaluation in the light of increased information about the site.

Table 2: Cumulative SQI and IEC Scores for Old Cilgwyn, Cardiganshire

(SCORE)	Total spp.	Common	Local (2)	Not. B (8)	Not. A (16)	RDB (32)	SQS	SQI	IEC
26/6/1987 ¹	2	2	-	-	-	-	0	-	-
4/12/1988 ²	20	9	10	1	-	-	28	140	2
24/5/1989 ³	23	11	11	1	-	-	30	130	2
11/6/1991 ⁴	45	20	20	5	-	-	80	178	8
25/8/1991 ⁵	53	22	24	7	-	-	104	196	11
29/3/1992 ⁶	58	23	28	7	-	-	112	193	13
7/6/1992 ⁷	65	27	30	8	-	-	124	191	13
6/7/1994 ⁸	71	28	33	10	-	-	146	206	15

Note: Data taken from A.P. Fowles & D.C. Boyce (unpublished)¹⁻⁷ and Hammond & Hine (1995)⁸.

The question of what constitutes a good site for saproxylic Coleoptera will have to wait until an agreed standard list of saproxylics can be compiled, but provisionally it would appear (on the basis of these examples) that a score of 200 and above indicates potentially important sites. If the assessment of Donington Park and Attingham Park is repeated with other nationally important parklands then we can expect a score of 300 or more to indicate an extremely rich locality for saproxylic species.

The main disadvantage with the proposed Index is that, ideally, sites need to be assessed on complete species lists. This does not mean that comprehensive inventories are necessary, but rather that species lists generated during surveys need to include common saproxylic species as well as uncommon or rare species. There is a tendency in entomology only to report interesting or unusual species and recorders should also be encouraged to submit more data on the commoner elements of site assemblages. This would seem to contradict Hammond & Hine (1995) who stress that site assessments should be based on an approach that uses "very few data" to distinguish sites of possible high quality. The suggestion (above) that site quality can be assessed only with a minimum of 40 species may seem to indicate that large datasets are required. However, this number of

species can be relatively easily recorded in one or two site visits (e.g. Old Cilgwyn 4/12/1988 & 11/6/1991 above). In practice, gathering sufficient data on Harding & Rose species to assess sites can take considerably more recording effort.

Site evaluation based on rarity and species-richness has been the accepted norm in nature conservation for decades (cf. Ratcliffe 1977, Usher 1986). If lists of species for particular guilds, such as the saproxylic Coleoptera, can be agreed at a national level then the possibility exists to evaluate sites on the basis of their conservation importance through the widespread use of Species Quality Scores. This approach can be applied to all habitats for all taxa as long as standard lists and conservation statuses can be established. Ball (1992) used Species Quality Scores to evaluate the importance of lowland peatlands in England and Wales and the system has proved to be very successful for water beetles (Foster & Eyre, 1992). There seems to be no reason why SQIs should not be developed to encompass other invertebrate groups in terrestrial habitats. The next steps for saproxylic Coleoptera seem to be to agree upon (and publish) a standard list of saproxylic species that can be used for SQI evaluation and to refine the list of indicator species for the IEC.

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A second site for *Hypomedon debilicornis* (Wollaston) (Staphylinidae) in Britain

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Drane (1994) belatedly reported the first known occurrence of this species in Britain under the name *Chloecharis debilicornis* (Wollaston); subsequently Duff (1995) argued it should be called *Hypomedon debilicornis*. Drane recounted obtaining specimens in some numbers by sieving mouldy hay taken from a heap of solidified slurry (farmyard refuse) at Helmdon, Northamptonshire (SP 5841), during the second half of August 1989. He pointed out that this was a cosmopolitan species which was well established in ports and centres of commerce from France to Sweden and that it had probably established itself in continental Europe over the last 150 years, hence it was not too surprising that it has recently turned up in Britain.

I can report its occurrence at a second location: on 23rd October 1996, I obtained one specimen by shaking decomposing straw over a sheet, the straw having been taken from a farmer's manure heap situated in a meadow at Heckfield, North Hampshire (SU 721610); a second visit on 29th October produced numerous specimens. Working a variety of compost heaps and haystacks in the vicinity during the same period failed to yield further specimens. It is possible that this species has a habitat requirement which is provided by an admixture of solidified slurry and mouldy straw; searching this kind of situation in different parts of the country may well yield further records.

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A two-headed larva of the Glow-worm *Lampyris noctiluca* Linnaeus (Lampyridae)

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In September 1996, while examining a batch of first-instar Glow-worm larvae which I had hatched from eggs, I came across a two-headed individual (Fig. 1). In addition to its two fully functional heads, the larva consisted of: two apparently normal prothoraces, each with a pair of legs; two mesothoraces, again with a pair of legs each; an abnormal metathorax, forked in the centre so that the anterior half was double while the posterior half appeared normal; and nine normal abdominal segments. The metathorax carried one pair of legs, bringing the total to five pairs. Both halves of the larva had full use of their palps, antennae and legs. When at rest they formed a symmetrical Y-shape, but when on the move the left-hand half seemed to take charge in determining the direction of movement while the other half was dragged helplessly along. At such times the larva took on a T-shape, with the left half and abdomen forming a straight line and the right half at right angles to the rest.

I estimate that the larva had hatched some time within the previous two weeks, and the fact that its abdomen was extremely flattened suggests that it had probably not eaten during that time. Despite being offered snails paralysed by other larvae, it was not seen feeding and died three days later.

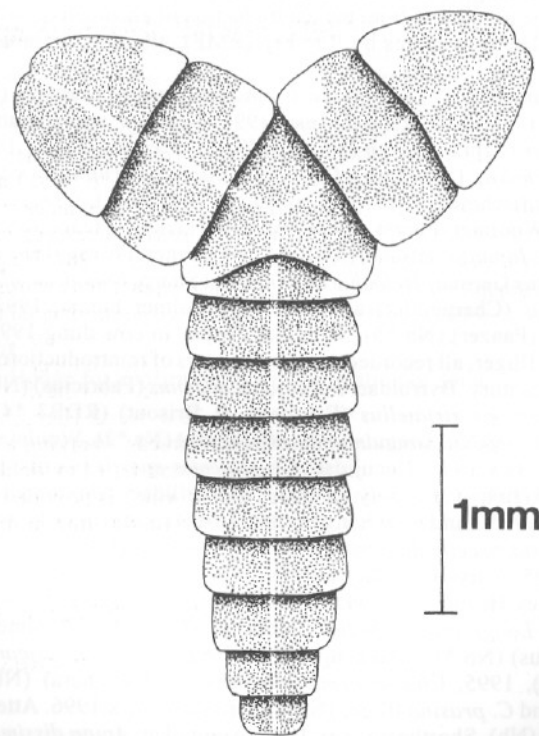


Fig. 1: Two-headed Glow-worm *Lampyris noctiluca* larva (Lampyridae) J. Tyler

Recent records of notable Coleoptera on heathland

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The loss and fragmentation of lowland heath over the past century has resulted in the decline of many species. Fortunately the past decade has seen a dramatic increase in the proactive management of many of the remaining sites, which has been highly beneficial to many taxa, especially those associated with early seral ecotypes. I have been actively engaged in the management of several such sites, primarily to encourage the Natterjack Toad *Bufo calamita*, which is dependent on open sandy ground with ephemeral water bodies. The creation of these conditions has clearly encouraged a range of scarce weevils (Denton, 1996). This note includes further records of other notable and rare species, many of which were related to recent management activities.

The national status criteria follow Hyman (1992). Those marked * relate to records associated with recent heathland management, and are categorised as follows:

- *1 = species associated with plants (mostly annuals or Broom *Cytisus scoparius*) encouraged by disturbance;
- *2 = dead wood specialists, benefitting from post clearance pine *Pinus* and birch *Betula* log piles, stumps and root-balls;
- *3 = open ground species, utilising cleared sandy ground;
- *4 = species benefitting from ephemeral pond creation;
- *5 = dung feeders, benefitting from the reintroduction of grazing livestock.

Initialled records relate to captures by Ray Fry (RMF), all other captures were made by the author.

NORTH HAMPSHIRE (VC 12). Carabidae: *Cicindela sylvatica* Linnaeus (Na *3?), 2 on sandy firebreaks, Woolmer Forest (SU 7932), v-vi.1994; *Agonum sexpunctatum* (Linnaeus) and *Stenolophus teutonius* (Schrank) both (Nb *4), Woolmer Forest, 1995; *Amara fulva* (Müller) (Nb *3), *A. praetermissa* (Sahlberg) (Nb *3), *Harpalus ruficornis* Sturm (Nb *1) and *H. smaragdinus* (Duftschmid) (Nb *3), Oakhanger (SU 7736), 1996; *Pterostichus lepidus* (Leske) (Nb *3), Woolmer Forest, 1994-95, and Hazeley Heath (SU 7558), 31.v.1995. Dytiscidae: *Agabus labiatus* (Brahm) (Nb *4), Woolmer Forest, 1992-96. Hydrophilidae: *Hydrochus angustatus* Germar, *Helochares punctatus* Sharp, *Enochrus affinis* (Thunberg) and *Berosus signaticollis* (Charpentier) all (Nb *4), Woolmer Forest, 1992-96. Scarabaeidae: *Aphodius coenosus* (Panzer) (Nb *5), Woolmer Forest, in cow dung 1993-95, with 12 other species of *Aphodius* Illiger, all recorded within two years of reintroduction of the first livestock grazing regime this century. Byrrhidae: *Porcinolus murinus* (Fabricius) (Nb), Woolmer Forest, 1995. Dryopidae: *Dryops striatellus* (Fairmaire & Brisout) (RDB3 *4), Woolmer Forest, 1990-96. Elateridae: *Ampedus sanguinolentus* (Schrank) (Na *2), Woolmer Forest, 30.v.1994, and Hazeley Heath, 31.v.1995. Cucujidae: *Cryptolestes spartii* (Curtis) (Na *1), Shortheath (SU 7736), 6.v.1995 (first vice-county record). Coccinellidae: *Adonia variegata* (Goeze) (Nb), Woolmer Forest, 1995, and Oakhanger, 1995-96 (exceptionally abundant in 1996). Mordellidae: *Tomoxia bucephala* Costa (Na *2?), Hazeley Heath, on pine stump on boggy heathland 14.vi.1995. Chrysomelidae: *Luperus flavipes* (Linnaeus) (Nb), Woolmer Forest, 1992-96, and Hazeley Heath, 31.v.1995; *Phytodecta decemnotata* (Marsham) (Nb), Hazeley Heath, 31.v.1995; *Longitarsus tabidus* (Fabricius) (Nb *1), Woolmer Forest, 1995-96; *L. dorsalis* (Fabricius) (Nb *1), Oakhanger, 14.x.1996; *Lythraia salicariae* (Paykull) (Nb), Conford (SU 8233), 1995; *Chaetocnema subcoerulea* (Kutschera) (Nb), *Cassida nobilis* Linnaeus (Nb *1) and *C. prasina* Illiger (Nb), Shortheath, vii-x.1996. Attelabidae: *Rhynchites cupreus* (Linnaeus) (Nb), Shortheath, 3.ix.1996. Apionidae: *Apion dissimile* Germar (Nb *1), Oakhanger, 16.vii.1996, first vice-county record. Curculionidae: *Acalyptus carpini* (Fabricius), *Curculio rubidus* (Gyllenhal) and *Gronops lunatus* (Fabricius) all (Nb *1), *Grypus*

equiseti (Fabricius) (Nb), *Sibinia primitus* (Herbst), *Strophosoma faber* (Herbst) all (Nb *1), Oakhanger, 1996; *Sitona waterhousei* Walton (Nb *1), Woolmer Forest (SU 7832), 6.vii.1994.

WEST SUSSEX (VC 13). Geotrupidae: *Geotrupes pyrenaicus* (Charpentier) (Na), Coates Common (SU 9917), vi.1994.

SURREY (VC 17). Carabidae: *Cicindela campestris* Linnaeus, Churt Flashes (SU 8638), 5.ix.1994, a late record; *Agonum sexpunctatum* (Linnaeus) (Nb *4), Brookwood Common (SU 9545), 20.vi.1996, and Churt Flashes, 24.v.1994; *Harpalus smaragdinus* (Duftschmid) (Nb *3), Thursley NNR (SU 9040), on sandy firebreaks, 1996 (RMF); *Pterostichus lepidus* (Leske) (Nb *3), Frensham Common (SU 8440), 18.v.1995, and Thursley NNR, 20.v.1995. Dytiscidae: *Agabus labiatus* (Brahm) (Nb *4), Churt Flashes, 1992-96. Hydrophilidae: *Hydrochus angustatus* Germar, *Helochares punctatus* Sharp and *Berosus signaticollis* (Charpentier) all (Nb *4), Churt Flashes, 1992-96; *Helophorus griseus* Herbst (Nb), Brookwood Common, 20.vi.1996. Geotrupidae: *Geotrupes pyrenaicus* (Charpentier) (Na), Thursley NNR, 1992-96. Scarabaeidae: *Aphodius coenosus* (Panzer) (Nb *5), Churt Flashes (SU 8639), in cow dung 1993-96, and Thursley NNR, in horse dung on bridleways 1994-96. Elateridae: *Ampedus elongantulus* (Schrank) (Na *2), Crooksbury Common (SU 8945), 16.vi.1995, and Thursley NNR, 1995; *Ampedus sanguinolentus* (Schrank) (Na *2), Wisley Common (SU 0758), 31.v.1995. Anobiidae: *Dryophilus anobioides* Chevrolat (RDB3 *1), Albury Heath (TQ 0646), on dead Broom 24.vi.1996 (2nd post-1970 Surrey record). Rhizophagidae: *Monotoma angusticollis* (Gyllenhal) (RDB3), Churt (SU 8539), 15.vii.1994, and Crooksbury Common, 1995, greatly outnumbering *M. conicicollis* Aubé in all six *Formica rufa* nests examined. Cucujidae: *Cryptolestes spartii* (Curtis) (Na *1), Albury Heath, on Broom, v-vii.1996. Cerambycidae: *Prionus coriarius* (Linnaeus) (Na), Thursley NNR, several predated on path near pine roots, 15.viii.1995. Chrysomelidae: *Cassida nobilis* Linnaeus (Nb *1), Albury Heath, 24.vii.1996; *Cryptocephalus parvulus* Müller (Nb), Thursley NNR, v.1996 (RMF); *Luperus flavipes* (Linnaeus) (Nb), Thursley NNR, v.1995. Anthribidae: *Platystomos albinus* (Linnaeus) (Nb), Thursley NNR, vi.1992 (RMF). Curculionidae: *Sitona waterhousei* Walton (Nb *1), Milford (SU 9341), 16.vi.1996; *Philopodon plagiatus* (Schaller) (rare inland record), *Ceutorhynchus pumilio* (Gyllenhal) (Na *1), *Sirocalodes mixtus* (Mulsant & Rey) (Nb *1) and *Mecinus circulatus* (Marsham) (Nb *1), Frensham Common, v.1995.

CUMBERLAND (VC 70). Curculionidae: *Ceutorhynchus pumilio* (Gyllenhal) (Na *1), Silloth Golf Course (NY 1052), dune heath 28.v.95, abundant on Shepherd's Cress *Teesdalia nudicaulis* encouraged by clearance of encroaching scrub in ii.1995.

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Recent records of notable Coleoptera in England and Wales

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This note lists records of Nationally Notable and Red Data Book species of Coleoptera made in recent years. Initialled records relate to captures made by Ray Fry (RMF) and Don Tagg (DT); all other captures were made by the author. The status categories follow Hyman (1992, 1994), and dead wood indicator species are noted following scores ascribed by Harding & Rose (1986), listed as Ancient Woodland (AW 1-3) species.

SOUTH DEVON (VC 3). Psephenidae: *Eubria palustris* Germar (RDB3), Shaldon cliffs (SX 9370), 15.viii.1994, one found in wet moss on vertical sandstone face, with *Ochthebius poweri* Rye (RDB3) (Hydraenidae) and *Laccobius striatulus* (Fabricius) var. *purpurascens* Newbery.

DORSET (VC 9). Carabidae: *Brachinus crepitans* (Linnaeus) (Nb), Portland (SY 6970), 6.vii.1995; *Licinus punctatulus* (Fabricius) (Na), Durlston Head (SZ 0277), 6.v.1995 and Portland (SY 6970), 6.vii.1995. Limnichidae: *Limnichus pygmaeus* (Sturm) (Na) Eype's Mouth (SY 4491), muddy trickle at base of clay cliff, 1995. Melyridae: *Cerapheles terminatus* (Ménétriés) (Na), Vitower, Poole Harbour (SY 9886), swept off Sea Club-rush *Scirpus maritimus* on upper saltmarsh, 22.vi.1994.

SOUTH HAMPSHIRE (VC 11). Staphylinidae: *Stenus fornicatus* Stephens (Nb), Balmerlawn (SU 3103), 13.v.1995. Nitidulidae: *Meligethes bidentatus* Brisout (RDBK), Hayling Island (SZ 7202), 7.vi.1995, on Dyer's Greenweed *Genista tinctoria* (1st modern record for VC 11).

NORTH HAMPSHIRE (VC 12). Buprestidae: *Agrilus laticornis* (Illiger) (Nb), Bentley (SU 7943), on sallow *Salix* 25.vii.1996; *Trachys scrobiculatus* Kiesenwetter (Na), Holybourne (SU 7441), several swept off roadside verge 3.viii.1996. Drilidae: *Drilus flavescens* (Fourcroy) (Na), Greywell (SU 7151), 2 males swept in calcareous wet meadow 31.v.1994. Cantharidae: *Malthinus balteatus* Suffrian (Nb), Noar Hill (SU 7432), 30.vii.1996. Lycidae: *Platyceps minutus* (Fabricius) (Nb), Greywell 14.viii.1994. Melandryidae: *Melandrya caraboides* (Linnaeus) (Nb), Ludshott (SU 8634), 1994; *Conopalpus testaceus* (Olivier) (Nb, AW3), Nutley Wood (SU 6144) 1.viii.1996. Mordellidae: *Tomoxia bucephala* Costa (Na, AW1), Henwood (SU 6522), on hogweed *Heracleum* 30.vi.1994; *Variimorda villosa* (Schrank) (Nb, AW3?), Magdalen Hill Down (SU 5029), Alresford (SU 5931) and Oakhanger (SU 7735), 1996, all on open grassland. Chrysomelidae: *Donacia bicolora* Zschach, River Wey (SU 8238), v-vii.1995 (first record for VC 12). Curculionidae: *Drupenatus nasturtii* (Germar) and *Gymnetron villosulum* Gyllenhal (both Nb), River Wey, Alton town centre (SU 7239), vi.1996.

WEST SUSSEX (VC 13). Carabidae: *Harpalus ardosiacus* Lutschnik (Nb), Bracklesham Bay (SZ 8295), 28.vii.1996; *Odacantha melanura* (Linnaeus) (Nb), Hunston (SZ 8602), 24.vi.1994. Staphylinidae: *Deleaster dichrous* (Gravenhorst) (Nb), Woolbeding (SU 8722), 19.vii.1994. Scarabaeidae: *Aphodius zenkeri* Germar (Nb), Parham Park (TQ 0514), in deer dung 28.vii.1994. Erotylidae: *Tritoma bipustulata* Fabricius (Na), Coates Castle (SU 9817), 13.v.1993. Cerambycidae: *Phytoecia cylindrica* (Linnaeus) (Nb), Ebernoe Common (SU 9727), 15.vi.1994.

SURREY (VC 17). Carabidae: *Bembidion quadripustulatum* Serville (Nb), River Wey, Eashing (SU 9444), 23.v.1995; *Pterostichus anthracinus* (Panzer) (Nb), Thundry Meadows (SU 9444), 16.xi.1995; *Platyderus ruficollis* (Marsham) (Nb), Littleworth Cross (SU 8945), 13.xi.1995 (RMF). Silphidae: *Dendroxena quadrimaculata* (Scopoli) (Nb), Thundry Meadows, 26.v.1994. Staphylinidae: *Omalium rugatum* Mulsant & Rey (N), Thursley village (SU 9834), 21.ii.1996. Lucanidae: *Lucanus cervus* (Linnaeus) (Nb), Thursley village, 1992-96. Buprestidae: *Agrilus angustulus* (Illiger) (Nb), Thursley NNR (SU 9040), v.1994; *Aphanisticus pusillus* (Olivier) (Nb), Hackhurst Downs (TQ 0948), in moss 4.iv.1995. Tenebrionidae: *Pseudocistela ceramboides* (Linnaeus) (Nb), Ranmore Common (TQ 1450),

v.1994, (RMF). Melandryidae: *Abdera biflexuosa* (Curtis) (Nb), Brookwood (SU9545), 24.vi.1996. Cerambycidae: *Prionus coriarius* (Linnaeus) (Na), Painshill Park (TQ 0960), at light 3.ix.1996 (DT); *Strangalia nigra* (Linnaeus) (Na), Hazelbridge (SU 9734), 17.vi.1995. Chrysomelidae: *Chaetocnema subcoerulea* (Kutschera) (Nb), Thundry Meadows, 8.vi.1995. Anthribidae: *Anthribus nebulosus* Forster (Nb), Thundry Meadows, 8.vi.1995. Curculionidae: *Sirocalodes mixtus* (Mulsant & Rey) (Nb), Thundry Meadows, 8.vi.1995; *Smicronyx reichi* (Gyllenhal) (RDB3), Whitedowns (TQ 1149), 17.vi.1995. Scolytidae: *Kissophagus hederæ* (Schmitt) (Nb), Botany Bay (SU 9834), 16.vi.1995.

FLINTSHIRE (VC 51). Scarabaeidae: *Aphodius plagiatus* (Linnaeus) (Nb), Talacre (SJ 1285), in flood debris beside dune slack 20.iii.1995.

WESTMORLAND (VC 69). Dytiscidae: *Hydroporus obsoletus* Aubé (Nb), Riggindale, Haweswater (NY 4611), in small springhead pool, 16.vii.1995. Histeridae: *Hypocaccus rugiceps* (Duftschmid) (Na), Roanhead (SD 2076), 25.v.1994. Staphylinidae: *Stenus oscillator* Rye (Nb), Bampton Grange (NY 5217) viii.1995, 1 male and 3 females. Scarabaeidae: *Geotrupes vernalis* (Linnaeus) (Nb), Haweswater (NY 4311), in sheep dung 6.ix.1995.

CUMBERLAND (VC 70). Histeridae: *Baeckmanniolus dimidiatus* (Illiger) (Nb), Sellafield (NY 0202), in beach litter 30.vii.1995.

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Ceutorhynchus pervicax Weise (Curculionidae) in North Hampshire

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On 27th May 1996 a mating pair belonging to this species was boxed as it rested on a plant of *Cardamine amara* which was growing on marshy ground in a mixed beech *Fagus* and oak *Quercus* wood, near Wellington Country Park, North Hampshire (SU 7262). A subsequent attempt one week later to obtain further specimens by sweeping the large stand of *C. amara* proved fruitless. This North Hampshire location represents a western extension of the known range of this species in Britain. It is assigned the status Notable A in Hyman (1992) having been recorded from East Sussex, East Kent and West Kent before 1970 and West Sussex, East Sussex, East Kent and Surrey from 1970 onwards. The suggestion in Hyman (*op. cit.*) that it is possibly increasing in distribution is given some support by this recent find.

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Notes on *Rhynchaenus calceatus* (Germar) (Curculionidae) in Ireland

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R. calceatus was discovered, new to Ireland, at All Saints' Bog, Co. Offaly, by Howard Mendel (1994). Mendel's notes on the species are very helpful in establishing its status (particularly in relation to *R. testaceus* (Müller)), its history as a British and Irish species and its range of colour variation.

MGM visited All Saints' Bog (IGR N0210) on 31st May and 1st June 1995 and both of us did so on 9th July 1996. *R. calceatus* was common at the site on each occasion but was particularly abundant on 1st June 1995. It outnumbered *R. rusci* (Herbst), also taken from birch *Betula* on the bog, by at least 10:1. In our experience, species of *Rhynchaenus* Clairville are usually taken singly, or in small numbers, the exception being *R. fagi* (Linnaeus), which often occurs in quantity. Occasionally *R. alni* (Linnaeus) also can be numerous, but usually it, too, occurs singly or in only small numbers. *R. calceatus* appears to be unusual in also occurring in abundance: certainly it contrasts with *R. testaceus*, which is seldom taken in numbers, in our experience.

Before we met at All Saints' Bog on 9th July 1996, JAO reconnoitred a bog near Annagh House, in north Co. Tipperary (VC H10) at IGR N0007. When we visited it later in the day it, too, proved to support a large population of *R. calceatus*. This is the second vice-county and third site for the weevil in Ireland, it having been recorded also from Killaun Bog (IGR N1005), Co. Offaly, in May 1995 by Peter Hodge (Hodge, 1996).

On 14th July 1996 a very brief visit to Woodfield Bog, Co. Offaly (IGR N2636) by MGM resulted in 18 specimens of *R. calceatus* being quickly beaten from two small *Betula* bushes. Earlier in the day a number of cut-over bogs in the vicinity had been visited but without discovering any further site for the weevil.

Leaf-mines on birch were collected at All Saints' Bog on 9th July. Most proved to have been vacated, but one *R. calceatus* was reared; it emerged in late July. In recording food-plants of weevils most coleopterists identify only 'Birch' or '*Betula* sp(p)'. However, both *B. pendula* Roth ('Silver Birch') and *B. pubescens* Ehrh. ('Downy Birch') are common lowland trees. The two species hybridise and are often difficult to distinguish (Stace, 1991), being most reliably separated by the 'Atkinson Discriminant Function', involving measurement of the characteristics of small samples of leaves. In the course of field work in July 1996, particularly on 14th, it became apparent that *R. calceatus* was being found on *B. pubescens* and not on *B. pendula*. Because of the difficulty of discriminating between the two species this result must be regarded as preliminary. However, the birches from which *R. calceatus* was taken at the bog near Annagh House, Woodfield Bog and All Saints' Bog (from which the weevil was also reared) all had the characteristics of *B. pubescens*. Birches at other sites, which did not support the weevil, had the characteristics of *B. pendula*. The habitats of the two birch species are different, with *B. pendula* generally being found in the drier parts of bogs compared with *B. pubescens*. The widespread destruction of bogland in central Ireland may mean that *B. pubescens* is an increasingly relict species on the areas of bog which survive.

The controversy as to whether *R. calceatus* is a good species or a subspecies of *R. testaceus* (Fowler, 1891; Allen, 1988; Anderson, 1989; Morris, 1993) appears to be settling in favour of the former supposition and is supported by the evidence of the foodplant, preliminary though the observations be. It is unlikely that a taxon which may be restricted to one species of *Betula* is conspecific with another feeding on Alder *Alnus glutinosa*. The comments of Mendel (1994) on the colour variation of *R. calceatus* are very much to the point and are supported by the range of colouration exhibited by the much larger number of specimens collected by us compared with the five examples reported on by him. Every variation from entirely red to

completely black, with legs and body also varying, was found in the samples from the three sites worked. Mendel's suggestion that the two 'subspecies' of the weevil, the nominate one and *R. calceatus semirufus* (Gyllenhal), are merely colour varieties is strongly supported by us.

Finally, the opportunity is taken to draw attention to a recent publication affecting the higher classification of Ramphinae (=Rhynchaeninae). A detailed analysis by Kojima & Morimoto (1996) suggests that *Rhynchaenus* Clairville should be restricted to *R. loniceriae* (Herbst) and a single Asiatic species, with the bulk of species formerly contained in *Rhynchaenus* transferred to *Orchestes* Illiger. The latter genus-group name was formerly regarded as a synonym of *Rhynchaenus*, but it was used *inter alia* by both Fowler (1891) and Joy (1932). The implications of Kojima & Morimoto's study, largely of Japanese species, for the west European fauna remain to be worked out.

Acknowledgements

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Cantharis obscura Linnaeus (Cantharidae) new to Kirkcudbrightshire

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A visit to the Wood of Cree RSPB Reserve (NX 3871) during the 1996 Annual Meeting of Scottish Entomologists, on 22nd June, revealed the presence of the Nationally Scarce soldier beetle *Cantharis obscura*. It was first swept in an area of rather uniform, closed-canopy old oak *Quercus* coppice in the centre of the reserve, and later in an area of more structurally varied old oak coppice at the southern end, along Coldstream Burn.

This constitutes a new county record and the only modern one from the whole of the Dumfries & Galloway region. No further specimens were found in other woodland areas visited during the weekend, suggesting a very localised distribution in this part of Scotland.

A second locality for *Cryptophagus falcozi* Roubal (Cryptophagidae) in Britain

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On 4th August 1995 I collected two beetles which on subsequent examination keyed out as female specimens of *Cryptophagus falcozi* Roubal. The beetles were found resting on a woody bracket of the fungus *Ganoderma adspersum* (Schulz) Donk., which was growing on a tree log within an area of deciduous woodland on the Reading University campus at Whiteknights, Berkshire (SU 737713). The tree log upon which the fungal brackets were growing was in a fairly advanced state of decay and hence difficult to identify with certainty but the few remaining patches of bark matched the bark of neighbouring hornbeams *Carpinus*.

A couple of fungal brackets were taken home and kept in biscuit tins. Over the next three days, four specimens (including males) were discovered inside one of the tins. A return visit to the original site on 7.viii.1995 produced a further eight specimens, all resting on a piece of exposed woody root which lay detached at the base of the original log. Four of these specimens were collected. No further specimens of this species were seen in the field despite occasional but repeated visits to the original site and no specimens have emerged to date from the fungus kept in the tins. Colin Johnson kindly examined voucher specimens and confirmed the identification; two males have been lodged in Manchester Museum.

This species is accorded RDB I status in Hyman (1994); it was first recorded in Britain from a single male found alive in one of six new insect store-boxes delivered to the Pest Infestation Laboratories at Slough (Berkshire) from a north London manufacturer in the summer of 1962. It was first found in the wild in Britain by J.A. Owen on 29th January 1981 who discovered one male and four females in an old beech *Fagus* trunk in Windsor Forest (Shirt, 1987). Prof. Owen could find no more specimens at this site despite repeated searching, however, he obtained several more specimens by sieving the debris inside the rotting stump of another ancient beech, again in Windsor Forest. In 1986 a similar hollow beech stump in Windsor Forest was examined by Prof. Owen and produced about a dozen specimens. Fruit bodies of a *Ganoderma* sp. were present on this particular stump (Owen 1987). Owen proposed that the beetle is a forest relict species which would be difficult to find if it were restricted to the inside of hollow trees since it would only become apparent when such trees were eventually blown down (thus enabling coleopterists to gain access to the interior).

The woodland on the Reading University campus from where my specimens were obtained may well constitute a fragment of the primary forest which at one time would have stretched from Windsor to Reading. Maps of the University grounds dating from 1817 reveal that this piece of woodland was designated as "wild wood"; further, some of the present day oak *Quercus* and beech standards are likely to be of a considerable age given their girth. These factors lend some weight perhaps to the notion that *C. falcozi* is a true forest relict. The alternative hypothesis, namely that it is a genuinely rare cryptic species which is nevertheless able to disperse and locate a specialised microhabitat, should also be retained. *C. falcozi* is known from Europe but few published records appear to exist (Owen, 1982).

The possibility that some kind of association exists between *C. falcozi* and the fungus *Ganoderma* should also be entertained. The two most frequently encountered species *G. applanatum* and *G. adspersum* are superficially very similar and both commonly attack beech; they may be distinguished most reliably by measuring the spores. Conversely the apparent association may be coincidental: rotting wood being the common factor.

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Some minor Scottish beetle swarms

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During my 14 years' residence in this village I have noticed three small swarms of mixed beetle species: one in the village, one just outside and the third about 10 miles east of here, all in VC 80 (Roxburghshire). I was not equipped to deal adequately with any of them, but in each case I secured a few beetles. I cannot estimate how representative my small samples were.

Swarm 1, 5.viii.1983: in a courtyard in Denholm (NT 568184) at about 6 p.m., duration c. 15 minutes. Species noted: *Bradycellus ruficollis* (Stephens) (Carabidae), *Hydroporus pubescens* (Gyllenhal) (Dytiscidae), *Helophorus brevipalpis* Bedel and *Cercyon analis* (Paykull) (Hydrophilidae), *Anotylus rugosus* (Fabricius) (Staphylinidae), *Esolus parallelepipedus* (Müller) and *Limnius volckmari* (Panzer) (Elmidae), and *Monotoma picipes* Herbst (Rhizophagidae).

Swarm 2, 22.iv.1984: at the edge of a felled pine *Pinus* plantation near Nisbet (NT 690281) at 4 p.m., duration less than 5 minutes. Species noted: *Philonthus laminatus* (Creutzer) and *Mycetoporus longulus* Mannerheim (Staphylinidae), *Aphodius prodromus* (Brahm) (Scarabaeidae), *Oulema melanopus* (Linnaeus) (Chrysomelidae) and *Coeliodes dryados* (Gmelin) (Curculionidae).

Swarm 3, 16.viii.1995: a public road near Denholm (NT 569191) at about 1 hour before sunset, duration c. 10 minutes. Species noted: *Trechus quadristriatus* (Schrank) (Carabidae), *Tachyporus hypnorum* (Fabricius) (Staphylinidae), *Typhaea stercorea* (Linnaeus) (Mycetophagidae) and *Anthicus floralis* (Linnaeus) (Anthicidae).

All of the swarms occurred in very sultry sunshine and complete absence of wind. The ending of swarms 2 and 3 coincided with light clouds causing slight dulling of the light, while swarm 1 ended when a very light, scarcely discernible breeze arose. In all three cases the suddenness of the beetles' disappearance was noticeable.

I also have notes of two single-species swarms that took place in calm and very sultry conditions. One was a brief swarm of flying *Aphodius prodromus* (Brahm) (Scarabaeidae) at Bedrule, Roxburghshire (VC 80, NT 596178) on 24.iv.1977. The other was a larger and very spectacular aggregation of *Phyllopertha horticola* (Linnaeus) (Scarabaeidae) by the river in Glen Lochay, Perthshire (VC 88, NN 513368) on 15.vi.1985. The beetles in their thousands were crawling on and flying over a small meadow of very short grass and festooning the trees round about. Although it was completely windless in the sheltered position, there were small clouds which periodically dimmed the sun a little. In full sunshine the beetles alternated between flight and resting on the trees or turf. As soon as a cloud dimmed the sun, all flight stopped as if switched off and the beetles on the meadow did their best to disappear into the short turf. The area that I saw involved in this swarm was perhaps 4-5 acres, but the aggregation may have extended much beyond that.

***Harpalus honestus* (Duftschmid) (Carabidae) discovered in Cumbria**M. L. Luff¹, R. W. J. Read² & D. Copestake³¹ Dept of Agricultural & Environmental Science, The University of Newcastle upon Tyne NE1 7RU² 43 Holly Terrace, Hensingham, Whitehaven, Cumbria CA28 8RF³ 22 Meadow View, Banbury, Oxfordshire OX16 9SR

The status of *Harpalus honestus* (Duftschmid) in Britain remained in doubt until Allen (1964) confirmed the existence of three specimens from Streatley, Berkshire in 1905 (Holland, 1905), together with two specimens in the Natural History Museum, the only data being that one specimen was from Charlton, West Kent in 1795. It was "presumed extinct" by MLL in Shirt (1987). Hyman (1992) mentions the possibility of further records from Box Hill, Surrey and Foxhall, Suffolk, but neither of these can be confirmed.

On 22 May 1994, DC found two examples of a bright green *Harpalus* under stones near the base of a coastal, sandy cliff south of Whitehaven, Cumbria (VC 70; NX 91). Unfortunately one of the beetles escaped, but the other, a female, was retained and sent to MLL for identification as it did not fit any of the commonly found species of the genus. The specimen keyed out to *H. honestus* in Lindroth (1974), but was notable for lacking the additional apical punctures on the seventh elytral interval, a feature mentioned by Lindroth for continental specimens of this species. As only five British specimens were previously known, it seems likely that this may be a general feature. A further confirmatory feature was that the extreme apices of the elytra carried a small tooth, as mentioned in Allen (1964). However, in the absence of any male examples, publication of this find seemed premature.

A further attempt to work the site was made by MLL, RWJR and Professor J.A. Owen on 16 May 1995, but bad weather made access impossible, and searching of the area by RWJR in 1995 proved unsuccessful. On 14 July 1996, MLL and RWJR revisited the locality in fine, sunny weather, and almost immediately were able to find about 10 examples of a brilliant green-coloured *Harpalus*, which agreed superficially with the specimen collected two years earlier by DC. Two examples, one male and a newly-emerged and damaged female, were killed for reference and detailed examination; the remainder have been kept alive. Comparison of the aedeagus of the male example with the drawings in Jeannel (1942) and Lindroth (1974) confirms beyond doubt that the species is indeed the true *H. honestus*. All the other specimens retained are alive at the time of writing, a male and female with RWJR, and four males plus two females with MLL. One of the latter females laid eggs during July and into August: despite some mortality of the resulting offspring, about 12 fully grown third instar larvae are currently overwintering at the University of Newcastle Field Station at Close House. If adults are successfully reared from these, it is hoped to release at least some of them back at the Cumbrian site in 1997.

It seems unlikely, to put it mildly, that *H. honestus* has been present and undetected on the Cumbrian coast since detailed recordings of our beetle fauna started. '*H. honestus*' was included in the county list by Day (1909), based on the record of *H. atrocoeruleus* Kirby in Stephens (1839), but it is likely that this referred merely to *H. rufitarsis* Duftschmid (Allen, 1964). The most probable origin of the present population would seem to be via the nearby port of Whitehaven, either with ballast or when overwintering perhaps in timber. On the continent *H. honestus* occurs widely except in the north (Jeannel, 1942; Turin, 1981) and also extends into the Russian Caucasus and Turkey (Turin et al., 1977; Kryzhanovskij et al., 1995). It is wing-polymorphic (Desender, 1986) but probably seldom able to fly (Lindroth, 1974), so that the population may remain largely confined to the one locality. Its persistence for a least two years, and the finding of a teneral individual is evidence of successful breeding at the site; larvae and adults fed readily on mixed herbaceous seeds in the laboratory so that food would not seem to be a limiting factor to the survival of the Cumbrian population. It is to be hoped

that this handsome addition to our recent carabid fauna can not only persist, but possibly spread in the years to come.

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***Mordellistena humeralis* (Linnaeus) in Somerset - a correction to *M. variegata* (Fabricius) (Mordellidae)**

A. P. Foster

The National Trust, 33 Sheep Street, Cirencester, Gloucestershire GL7 1RQ

In a jointly published note (Foster & Parsons, 1996) I included a record of *Mordellistena humeralis* (Linnaeus) from Somerset. The specimen concerned was exhibited at the British Entomological & Natural History Society's Annual Exhibition, where P.J. Hodge queried it as a possible *M. variegata* (Fabricius). It was later forwarded to A.A. Allen who has confirmed (*in litt.*) that the true identity is indeed *M. variegata*; the specimen has been correctly listed in Alexander & Foster (1996). This species is not included in Duff (1993) and may represent the first Somerset record.

Acknowledgements

I am very grateful to both A.A. Allen and P.J. Hodge for critically examining the specimen.

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Review

Ladybirds by Michael E.N. Majerus. London: HarperCollins. 1994. 367 pp. + 16 pls. Hard cover, price £30. Paperback, price £14.99.

I doubt if there are any British readers of *The Coleopterist* who are not familiar with the New Naturalist series, which started with E.B. Ford's classic work *Butterflies* published some 50 years ago. This is the 81st volume in the series which set out to inform the general reader about British wildlife and habitats, although the volumes were not intended exclusively for the British reader. Although *Ladybirds* is the first to deal specifically with a group of beetles, it is the tenth volume of the series concentrating on entomology. This number compares very favourably with birds and higher plants, both of which groups have twelve volumes dedicated to them.

This book covers a wide-ranging survey of the current knowledge of British ladybirds. It is divided into 18 main chapters, with some short appendices, a glossary, bibliography and index, and 16 colour plates bound together in the centre. The chapter headings: Historical Perspectives, The Structure of Ladybirds, The Ladybird Year, Life History Strategies, Food, Ladybird Death, Habitats, Ladybirds in Winter, Geographic Distributions, Colour and Patterns, Colour and Pattern Variation, Genetics, Evolution, Colour and Pattern Variation in the 2 Spot and 10 Spot Ladybirds, Evolutionary Ecology, Evolutionary Perspectives, Biological Control, and Conservation indicate the extent of the coverage. The information is, by and large, restricted to British observations on the British species, but many of the observations also apply to ladybirds in general. Because of this, the reader may come away with the impression that almost all ladybirds are aphid predators, whereas in other parts of the world, a good proportion of the species feed on scale insects and other Homoptera. Our single herbivorous species, *Subcoccinella vigintiquatuor punctata*, is not usually a pest in Britain, but there are a few hundred plant-feeding species of the subfamily Epilachninae worldwide, especially in the tropics, including several pest species of major economic importance.

Observations on the habitats of the British species will be of particular interest to the British collector/ recorder, and everyone will at least subconsciously compare their experiences with the summaries in the tables provided. As much of the information came from the results of the Cambridge Ladybird Survey, the information appears rather limited for some species. In particular, my impression is that *Coccidula rufa* is far more widely distributed in grasslands than just "wetlands, marshes and bogs", and I suspect that few of the Cambridge Ladybird Survey contributors would have spent much time grubbing at the base of plants, sieving moss or leaf litter, or shaking out grass tussocks to look for ladybirds. However, the very restricted habitat of *Coccinella quinquepunctata* in the UK, river shingle banks, is contrasted with the species' more normal general habitat on the European continent, where it is often found as a predator of aphids on crops in fields.

The recent fossil history of Britain during periods of climatic change is illustrated by examples of species such as *Hippodamia arctica* and *Anisosticta strigata* which occurred here in cooler times prior to the last glaciation, but which are nowadays restricted to boreal zones. Three other species are mentioned which could possibly establish here, but which were probably prevented from reaching Britain by the North Sea and English Channel barrier. It is curious that there are post-glacial fossils of *Coccinula quatuordecimpustulata* from the Midlands, but this is one currently widespread and common European species which did not establish in Britain. The author does not otherwise speculate on which other species might establish as a result of global warming. The present reviewer is aware of two ladybird species from the continent found very recently in southern England, awaiting formal publication of their discovery, but they are not among the species mentioned by the author in the book. Anyone looking to rediscover *Hippodamia tredecimpunctata* in Britain, and who finds a specimen

matching figure 107 on page 182 of the book will have the pleasure of adding *Hippodamia notata* (Laicharting) to the British list.

Overall, the book draws together a lot of available information, but also highlights areas where data are lacking. Many species in Britain are still very poorly known biologically, and as exemplified by *Coccinella quinquepunctata*, their biology in the UK is not always that expected from their habits on the continent. The author speculates quite freely when information is not available, and in doing so, poses many questions in order to stimulate readers into recording their own observations or conducting their own studies.

I found the book well worth reading from cover to cover and would happily recommend it to anyone with an interest in ladybirds. Although the use of some of the common names was confusing or niggling for someone used to scientific names, the text was virtually free from typographical errors and the whole book, and especially the colour and black and white photographs were reproduced to a high quality. However, while some of the scientific names have been updated correctly from the current British checklist, others such as *Rhizobius* (instead of *Rhyzobius*) and *Micraspis* (instead of *Tythaspis*) are incorrect, and *Adonia* is now more usually placed as a subgenus, or synonym, of *Hippodamia*.

Roger G. Booth

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This section is for subscribers to advertise requests for information, specimens wanted for loan, or entomological items wanted or for sale. **Notices of specimens for sale or exchange will not be accepted.** Notices will be repeated with each issue while space is available (or until withdrawn), newer ones appearing first, and may be edited for brevity.

Change of address: Please note that Derek Lott, formerly Keeper of Biology, has moved and is now: Keeper of Natural Sciences, Leicestershire Museums, Arts & Records Service, County Hall, Glenfield, Leicester LE3 8RA Tel.: (0116) 265 6790. Fax.: (0116) 265 6788.

Putting the Ciidae on the map: As part of my PhD project on the British Ciidae I am examining their morphology, ecology and distribution, and plan to present this work as a compilation of descriptions, illustrations and maps, accompanied by an identification key. I shall be most grateful to receive your Ciidae records, with any habitat notes and observations (e.g. tree/fungal hosts, presence of teneral) a valuable bonus. Please send voucher specimens where identification is in doubt; these will be returned. Your help will be greatly appreciated and all contributors will be duly acknowledged. *Glenda Orledge* School of Biology and Biochemistry, University of Bath, Claverton Down, Bath BA2 7AY.

Wanted: Whole years with indices and title pages, bound in wrappers - *Entomologist's Mon. Mag.*, Vols. 1-8, 10, 12-15, 17-21, 23-33, 35, 59-61, 63-68, 70, 99. *Entomologist's Rec.*, Vols. 1-16, 27-63, 89-93, 97-98, 103-107. *Tony Drane* 'Rocklands', 19 Station Road, Cogenhoe, Northampton NN7 1LT.

Wanted: The Coleoptera plates with text of Hefte 110 of Panzer's *Fauna Insectorum Germanicae* - *Aphodius affinis*, *contaminatus*, *obliteratus*; *Melolontha ruficornis*; *Byrrhus luniger*, *signatus*, *lineatus*, *nitens*; *Hydrophilus piceus*; *Dytiscus punctulatus* (male), ditto (female). I would also be interested in some specific 1st edition plates and text, particularly from Hefte 8. *Tony Drane* 'Rocklands', 19 Station Road, Cogenhoe, Northampton NN7 1LT.

Study help wanted: I am engaged in a study of the chrysomelid *Gastrophysa viridula* and would be interested to hear from anybody willing to collaborate. *Bill Fakes* 203 Hugh Gardens, Newcastle upon Tyne NE4 8PQ Tel.: (0191) 272 0155.

Change of address: The national recorder for Dermestoidea and Bostrichoidea has moved. Please amend your records accordingly. *Barry Constantine* The School House, Scremerston, Berwick upon Tweed, Northumbria TG15 2RB Tel.: (01289) 304845.

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