

The Coleopterist

Volume 9 Part 1 ♦ April 2000

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Henosepilachna argus new to the U.K.

1

Henosepilachna argus (Geoffroy) (Coccinellidae, Epilachninae), a phytophagous ladybird new to the U.K., breeding at Molesey, Surrey

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A specimen of this spectacular and unusual ladybird, later identified as *Henosepilachna argus* (Geoffroy) by Dr Roger Booth (CABI Bioscience), was found on 14th May 1997 'on a plant' in a garden in High Street, West Molesey, Surrey (TQ 133678) by Miss Alysia Menzies. A second specimen was discovered at rest on a climbing frame in an adjacent garden on 1st August 1997. This species has not previously been reported from the United Kingdom. It belongs to the subfamily Epilachninae, as does the much smaller but similarly coloured 24-spot Ladybird *Subcoccinella vigintiquatuorpunktata* (Linnaeus), a common British species which is also phytophagous. *H. argus* is a highly distinctive ladybird, 6-8 mm in length and covered with short pubescence. Except for 11 round elytral spots, as well as the eyes and abdomen, which are black, the entire beetle is of a bright amber colour. There are virtually no thoracic markings (Pl. 1).



Pl. 1: Adult *Henosepilachna argus* (Geoffroy) (Coccinellidae) J. A. Owen.

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Henosepilachna argus is a well-known species on the European continent where it feeds on the leaves of cucurbitaceous plants, especially white bryony (*Bryonia dioica*) (Fürsch, 1967). The species is illustrated in some popular books, notably Lyneborg (1977) where it is referred to as *Epilachna chrysolina* (Fabricius). A second European species, *Henosepilachna elaterii* (Rossi) = *Epilachna chrysolina* auct. [non (Fabricius)], is illustrated by Chinery (1986) who also uses the name *Epilachna chrysolina* (Fabricius). In *H. elaterii*, which is distributed more to the south and east of Europe, the elytral spots adjacent to the scutellum are well separated whereas in *H. argus* they are joined at the suture.

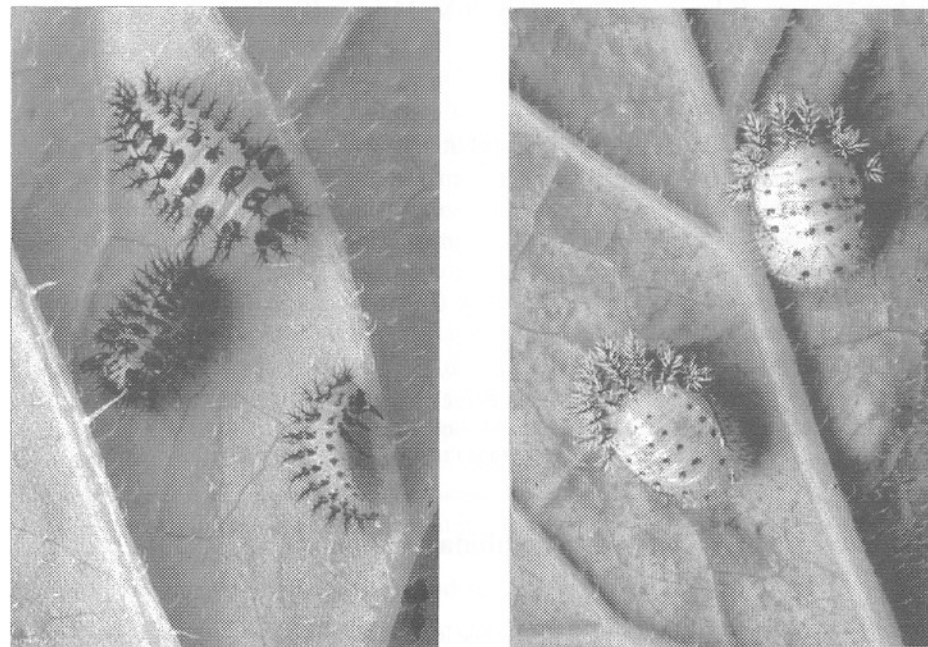
Further adult beetles were beaten out of ivy (*Hedera helix*) and honeysuckle (*Lonicera* sp.) growing together up a fence in the same garden on 1st November 1997 (ISM), nine falling into a tray at the first few strokes! A single specimen was also beaten from an old hawthorn (*Crataegus* sp.) about 100 m from the garden but, although the beetles were found to nibble the undersurface of cucumber peel, no sign of possible cucurbitaceous food-plants such as marrow (*Cucurbita pepo*) or white bryony could be found at that time.

During the autumn and early winter of 1997, eight further adult beetles and two larval skins (indicating local breeding) were beaten from ivy and honeysuckle in the High Street garden by R.G. Booth, ISM and J.A. Owen on 4th and 8th November, and a total of 20 adult beetles were obtained from ivy growing in old hawthorns on Molesey Heath (TQ 133673) by A.J.W. Allen, N.F. Heal, P.J. Hodge, ISM & JAO on 7th, 13th and 22nd November, and 13th December.

The first observation for 1998, again by Alysia Menzies, was of an adult flying onto a window pane at the High Street address on 29th April and later (31st May and 1st June) she found about 20 adult *H. argus* on the leaves of white bryony now to be seen growing up a neighbour's garden fence. Meanwhile, BMS had made an independent discovery (on 22nd May 1998) of *H. argus* in Elmbridge Cemetery (TQ 132685), about half a mile north of the above-mentioned sites. Here it was later found to be feeding in large numbers on white bryony, and to be present in all stages from egg to adult. A visual survey, without beating, carried out in the cemetery on 20th June revealed 23 clumps or colonies of white bryony with a total of 48 adult beetles, including two pairs *in cop.*, and large numbers of larvae at all instars (Pl. 2). Eggs were not found during this survey, but had been noted, always on the under surface of the bryony leaves, during a search of the cemetery on 7th June. Larvae and adult beetles were seen in large numbers on white bryony now seen to be growing amongst the ivy and honeysuckle in the original High Street garden on 6th and, together with pupae, on 29th June (M.J. Collier, NFH, ISM, JAO); also on small patches of bryony amongst hawthorn at Molesey Heath on 7th July. Large numbers of larvae, pupae and adults were also seen on bryony at the eastern border of Molesey Recreation Ground (TQ 132685) on 6th July (ISM, JAO). Adults and larvae feed by scraping away the leaf surface leaving a skeleton of veins and do not chew from the edge inwards.

On 11th July 1998 a search made by BMS to determine the distribution of *H. argus* westwards along the River Thames to Walton revealed the beetle (usually both adults and

larvae) on almost every development of white bryony as far as the weir (TQ 101672); also on virtually all plants examined along and near the A3050 road towards Molesey, and in areas around the Knight/Bessborough and Queen Elizabeth II Reservoirs. It should be noted, however, that no sign of *H. argus* was found on white bryony growing in the cemetery and grounds at St Mary's Church, Walton.



Pl. 2: *Henosepilachna argus* (Geoffroy) (Coccinellidae), larvae (left), and pupae (right) I. S. Menzies.

Conclusion

Henosepilachna argus (Geoffroy) has recently become established in the UK at Molesey in Surrey, where it is now breeding in large numbers on white bryony. During 1998 it was present virtually everywhere that white bryony was growing within an area of about 2.5 square miles between Walton-on-Thames and East Molesey, bounded by the River Thames to the north. Where examined, plants such as marrow and courgette being grown on allotments in the area proved devoid of the beetle, and attempts by a colleague, J.P. Bowdrey (Colchester Museum), to transfer it to leaves of courgette, were unsuccessful. There is, as yet, no evidence that the species is breeding on any other cucurbitaceous species here.

Since this manuscript was prepared, we have been informed by Mr Steve Lane (Herbert Art Gallery & Museum, Coventry) of the discovery of a single specimen of *H. argus* from near Stratford-upon-Avon, Warwickshire. This was taken on 4th August 1998 by a Mrs

MacDonald in a garden at Upper Fulbrook. Although some white bryony was present at the edge of the garden, it was considered that the specimen had possibly been feeding on either lemon cucumbers or courgettes. This appears to be an isolated individual, of unknown origin, as no further ladybirds were detected during three visits to the garden during 1998 by Steve Lane. A genetic study of this specimen, which is preserved at the Herbert Museum, is being undertaken by Dr M. Majerus (Cambridge) for comparison with Mediterranean populations.

Acknowledgements

We are grateful to the following for contributing to the records listed above: Tony J.W. Allen, Dr Roger G. Booth, Peter J. Hodge, Norman F. Heal and Martin J. Collier; also to Prof. John A. Owen who presented the photograph illustrating the adult beetle, and, of course, to Alysia Menzies (age 8 years), granddaughter of the first author, who first discovered the ladybird at Molesey.

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Cymindis axillaris (Fabricius) (Carabidae) in Somerset

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On 17th April 1995 I obtained a ground beetle while looking for ants in grassland at Goblin Combe, N. Somerset (VC 6; ST 478652). I forwarded it to A.G. Duff, who identified the specimen as *Cymindis axillaris*, an identification subsequently confirmed by Dr M.L. Luff. The species is rated as Notable A (Hyman, 1992) and this is both a new record for Somerset (Duff, 1993) and the first post-1970 record for southwest England (Luff, 1998). It was recently recorded for the first time in Wales (Telfer & Gurney, 1999).

The specimen is now in the collection of A.G. Duff.

Acknowledgement

Thanks are due to Martin Luff for confirming the identification.

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Status and identification of *Bradycellus csikii* Laczó (Carabidae) in Britain

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In Britain, the genus *Bradycellus* comprises seven species of small (2.5-5 mm), yellow-brown to black-brown ground beetles. One of them, *B. csikii*, was added to the British list by Lindroth (1972) on the basis of a single 19th Century specimen discovered in the Natural History Museum collections.

A small, rather dark *Bradycellus* collected by HM in 1994 from a Breckland roadside at Wangford, Suffolk, proved on dissection to be *B. csikii*. Since the original record, only one other British specimen had been recognised and the species was considered to be 'of doubtful status' (Kloet & Hincks, 1977). *B. csikii* was given RDB 3 (Rare) status in the 'Insect Red Data Book' (Shirt, 1987), later revised to RDB I (Indeterminate) (Hyman, 1992). The site at Wangford, used as a dump for hardcore, is close to a sandy roadside verge intensively worked for carabids by Eversham & Telfer (1994), whose site list included *B. harpalinus* (Serville), the species with which *B. csikii* is most likely to be confused. Fortunately, several specimens had been retained and so could be reappraised. Examples of *B. csikii* were recognised in the samples and further specimens have since been taken at Wangford and other localities (Table 1).

British status and distribution: expanding or overlooked?

Bradycellus csikii seems to be firmly established in East Anglia and may prove to be widely distributed though very local and rare in the region, and perhaps further afield. The flush of recent records may indicate that *B. csikii* has become more common and widespread in Britain in recent years. It was thought to be spreading in Sweden (Lindroth, 1986), and more generally on the Continent (Luff, 1998). However, it is difficult to draw firm conclusions because *B. csikii* has probably been widely overlooked in Britain, until recently. With only two British records, few British coleopterists critically examined every *B. harpalinus* in the hope of discovering the much rarer species.

The wings of continental specimens are dimorphic (Lindroth, 1986) but all six of MGT's specimens and the Woking specimen are macropterous. A high proportion of macropterous individuals may suggest an expanding species.

The continental European range of *B. csikii* is from The Netherlands to Poland and from southern Sweden to northern Italy (Lindroth, 1986). Jaeger (1990) made an extensive study of the geographical distribution of *B. csikii* and considered it to be a typical 'Pontic faunal element'. However, Kryzhanovskij *et al.* (1995) indicate that *B. csikii* is found widely in parts of the former Soviet Union west of the Urals.

Table 1: British records of *Bradycellus csikii*, in chronological order of date of capture.

Date	Locality	VC	Grid Ref.	Number and sex of specimen(s), habitat details and collector.
19th Century	Woking, Surrey.	17		1 ♂ Coll. G.C. Champion. Det. C.H. Lindroth.
8 May 1977	Little Blakenham, Suffolk; 'Ipswich' in Luff (1998).	25	TL109489	1 ♂, sifting moss at the edge of a chalk pit. Coll. D.R. Nash.
27 March 1993	Wangford roadside, Suffolk.	26	TL 756836	1 ♂, hand-searching. Coll. MGT.
17 July 1993	Wangford roadside, Suffolk.	26	TL 756836	2 ♂♂, hand-searching. Coll. B.C. Eversham.
18 August 1993	Wangford roadside, Suffolk.	26	TL 756836	1 ♂, hand-searching. Coll. MGT.
7 April 1994	Wangford roadside, Suffolk.	26	TL 756836	1 ♂, hand-searching. Coll. B.C. Eversham. Det. MGT.
30 June 1994	Maidscross Hill, Lakenheath, Suffolk.	26	TL 72-82-	1 ♂, hand-searching. Coll. MGT.
29 Sept. 1994	Wangford, Suffolk; 'Lakenheath' in Luff (1998).	26	TL 75-83-	1 ♂, beneath rubble on sand. Coll. HM.
16 Oct. 1994	Wangford roadside, Suffolk.	26	TL 75-83-	1 ♀, beneath litter on sand. Coll. M.J. Collier.
20 April 1995	Wangford roadside, Suffolk.	26	TL 756836	1 ♂, hand-searching. Coll. MGT.
24 July 1997	Wangford, Suffolk	26	TL 75-83-	1 ♂, under small stone on sand, roadside. Coll. J.A. Owen (confirmed by M.L. Luff).
12 April 1998	Welches Dam, Ouse Washes, Cambs.	29	TL 471858	2 ♂♂, 1 ♀, together, at edge of floodwaters. Coll. MGT.

Habitat preferences

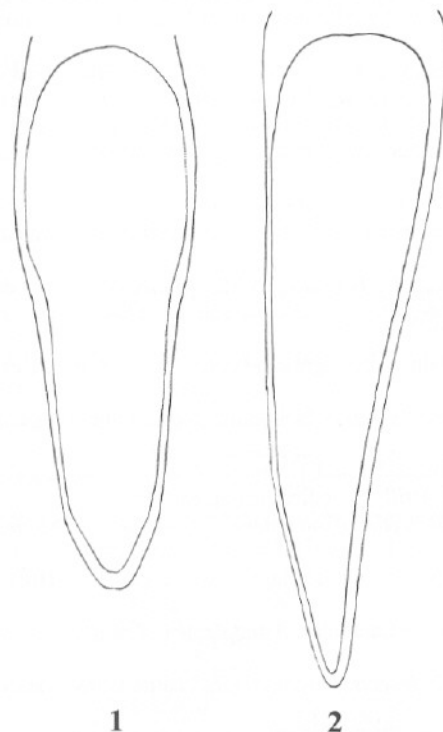
The sites at which *B. csikii* have been found appear to have little in common and until there are further records it is difficult to characterise the preferred habitat in Britain. According to Lindroth (1974, 1986), probably referring mainly to the habits of the species in Scandinavia, it is associated mostly with clayish soil. The Little Blakenham (1977) specimen was sifted from moss on 'heavy chalky soil' (Nash, 1979a; 1979b). Recent records from Suffolk Breckland are from very well-drained, loose, sandy soils, more typical of coastal dunes than inland heaths. The Breckland sites form a marked contrast with the clay banks of the Ouse Washes at Welches Dam. It is clear that, in Britain, *B. csikii* can exploit a wide range of habitat types and is certainly not confined to clay soils. Perhaps it is limited by the availability of seeds of particular plants on which the adults feed.

Identification

Bradycellus harpalinus and *B. csikii* are genuinely difficult to distinguish except by reference to the male genitalia. The median lobe of *B. csikii*, in dorsal view, is broader and blunter at the apex (Fig. 1), compared with the median lobe of *B. harpalinus* (Fig. 2) which is strongly narrowed from base to apex (see also Lindroth (1986)). In well-

sclerotized median lobes, the diagnostic internal spines of *harpalinus* can be seen near the apex, without clearing. In lateral view, as illustrated by Lindroth (1974), the median lobes are much more similar. The Surrey specimen in the Natural History Museum has the aedeagus mounted in gum in lateral view (probably only because the three-dimensional shape made it very difficult to mount in dorsal view).

Compared with *B. harpalinus*, *B. csikii* is darker on average, typically a very dark blackish-brown above, with paler reddish-brown elytral and pronotal margins, first elytral intervals and scutellum. The eyes of *csikii* are slightly less convex than those of *harpalinus*; the pronotal foveae are shallower, and the area between the fovea and the lateral margin is less convex. The marginal bead of the pronotum in *csikii* hardly extends onto the base, and then only weakly, whereas in *harpalinus* the bead is typically prolonged onto the base. The micro-punctures of the elytral intervals, a character used by Lindroth (1974) to distinguish *csikii*, are rather difficult to see and seem to vary. All of these external characters are subtle and subjective. They are subject to variation in both species and there is sometimes overlap. Even when the full suite of characters is used, the identification of female specimens of *csikii* remains extremely challenging.



Figs. 1-2: *Bradycellus* spp., aedeagus median lobe. 1 *B. csikii*; 2 *B. harpalinus*

Conclusions

Bradycellus csikii is established in Britain though still rare, and should be looked for in open habitats, especially in East Anglia. The species is difficult to separate from *B. harpalinus*, except by examination of the median lobe of the male genitalia, best viewed in dorsal aspect. MGT would be happy to help with the identification of any suspected specimens of *B. csikii*.

Acknowledgements

We thank Messrs. M.J. Collier, B.C. Eversham, D.R. Nash, and Professor J.A. Owen for allowing us to include their unpublished records and observations, and Dr M.L. Luff

for helpful advice. J. Hodgkins kindly commented on the manuscript.

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The intertidal cossonid weevil *Pselactus spadix* (Herbst) (Curculionidae) in England and Wales

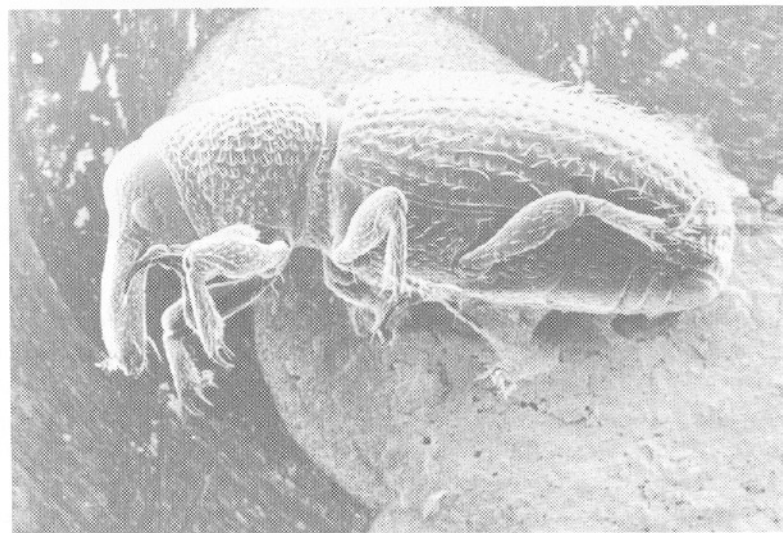
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Introduction

Pselactus spadix (Herbst) is a weevil (Pls. 1-2) that tunnels wood in the intertidal zone (Sawyer & Cragg, 1995). First described by Herbst (1795) as *Curculio spadix*, it was included in the genus *Codiosoma* by Bedel in 1885 and *Phloeophagia* by Aurivillius in 1924 (Dieckmann, 1983). However, following a revision of this species by Folwaczny (1971), it is now included in the genus *Pselactus*, subfamily Cossoninae (Folwaczny, 1971; 1973; 1983) or tribe Cossonini (Hoffmann, 1954).

P. spadix is graded Notable B (Scarce) (Hyman, 1992). It has been reported from coastal habitats in England since the 1850s (Champion, 1871; Walker, 1879; Hoffmann, 1954; Linssen, 1959; Dieckmann, 1983; Folwaczny, 1983; Sawyer & Cragg, 1995), where they infest wooden piles (Folwaczny, 1973), groynes and other sea defences (Walsh, 1925). This species is generally known as inhabiting "driftwood in estuaries" (Ball, 1995) or "in groynes, driftwood and old timber on the coast ... [and] in rotten wood" (Hyman, 1992). The species was reported to prefer coniferous woods (Folwaczny, 1973). The UK distribution was described as "widespread but local in southern and eastern England, also recorded in South Wales" (Hyman, 1992).

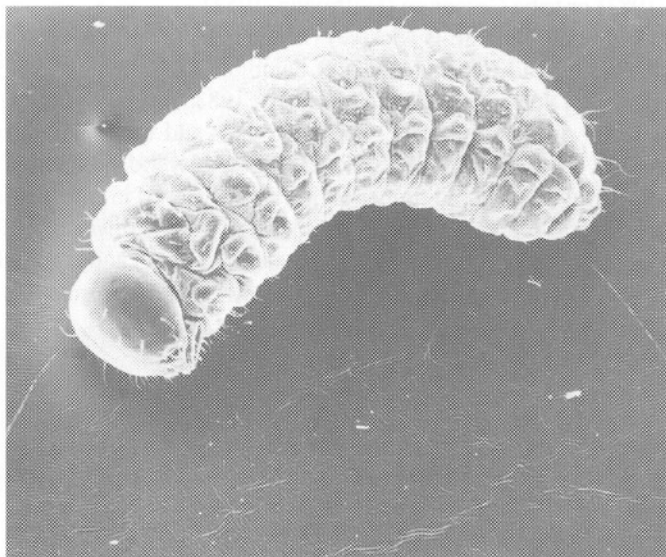


Pl. 1: *Pselactus spadix* (Herbst) (Curculionidae), adult G. S. Sawyer.

This paper collates existing records of *P. spadix*, with 85 new records from 45 locations recorded in a coastline survey for England and Wales during 1998 and 1999.

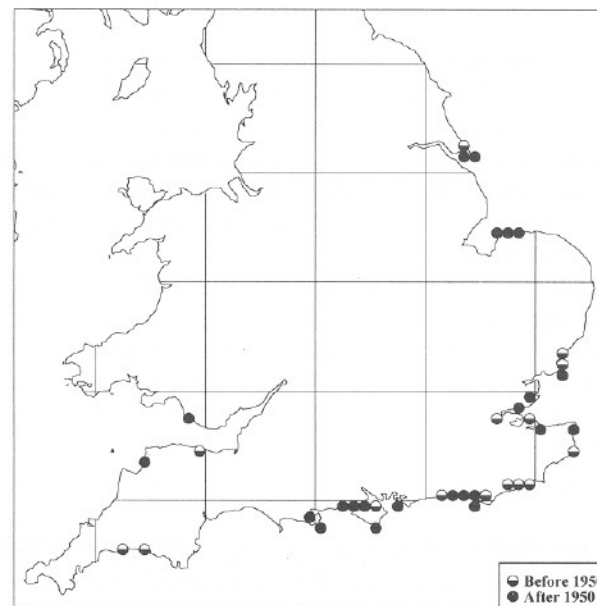
Methods

In co-operation with the 1998 Annual Beach Survey of the Tidy Britain Group, wooden structures at 148 British beaches and resorts were surveyed. In addition, during 1998 and 1999, a search for *P. spadix* was conducted on English and Welsh coasts. The survey included ports, harbours and remote beaches south of Middlesborough and Lancaster. Upon finding the beetle, the type of structure in which they were tunnelling, and the position of the infestation in relation to tidal level, were recorded. Tidal levels were identified by the presence of other organisms, e.g. lichens in the splash zone, blue-green algae in high intertidal zone and barnacles in the mid intertidal zone (Little & Kitching, 1996).

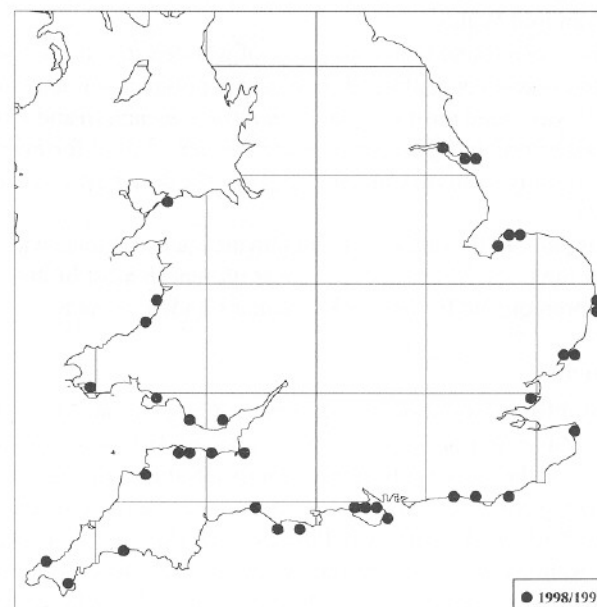


Pl. 2: *Pselactus spadix* (Herbst) (Curculionidae), larva G. S. Sawyer.

Identification of *P. spadix*, when present, was undertaken using Folwaczny's key (1973). Evidence for previous *P. spadix* infestation was confirmed by measuring tunnel and frass dimensions and identification of exoskeleton fragments if present. Thin sections ($\approx 20 \mu\text{m}$) of infested wood were stained with safranin (1% in 50% ethanol) and temporary mounts were used for wood identification (Phillips, 1979; Coday & Maun, 1997) and examined for the presence of fungi. UK records of *P. spadix* in both personal and institution collections were also listed to map the distribution. Records from personal collections were obtained following the publication of requests for information in *Antenna* (1998, 22(2): 55-56) and *The Coleopterist* (1999, 8(1): 47).



Map 1: Records from collections and personal records of *P. spadix* until 1998.



Map 2: *P. spadix* records from the 1998/1999 survey.

Results

All *P. spadix* records from collections, personal records and the 1998-1999 survey were coastal (Map 1-2). In the survey, the species was reported most frequently inhabiting fixed sea-defence structures (88%), followed by driftwood (12%).

Results from the survey found that *P. spadix* colonised all but one timber structure in the intertidal zone. Infested regions were found in the mid intertidal to high intertidal (18%), high intertidal (21%), high intertidal to splash zones (38%) and in the splash to non-intertidal zone (21%).

The infested softwoods (76% of all samples) were identified as Douglas Fir *Pseudotsuga menziesii* (Mirbel) Franco (21%), Scots Pine *Pinus sylvestris* L. (22%), unidentified pine *Pinus* spp. (24%) and other species (9%). Infested hardwoods (24% of all samples) included elm *Ulmus* spp. (9%), greenheart *Ocotea* spp. (6%), oak *Quercus* spp. (5%) and other species (4%). Fungal hyphae were present in 72% of the timber samples examined with the microscope.

Discussion

This survey shows that *P. spadix* is common in coastal regions of England and Wales where old structural timbers are present. The most northerly record from the survey was in Paull, Yorkshire. Replacement of old structural timbers by new timbers or concrete has probably resulted in the disappearance of this species from locations where it was recorded previously (e.g. locations on the Essex coastline, Map 1-2). *P. spadix* has not previously been recorded from mid Wales.

The species has been found to infest a range of wooden structures along the coast and is not restricted to estuaries or driftwood. *P. spadix* is polyphagous and tunnels softwoods and hardwoods. It was found most often in *Pseudotsuga menziesii* and *P. sylvestris*. Since *Ocotea* spp., *P. menziesii* and *Quercus* spp. are frequently used for marine construction (Oliver, 1974), this study seems to confirm that *P. spadix* shows a preference for softwoods (Folwaczny, 1973).

The infested regions of the timbers extend into the intertidal zone, where they are prone to submersion by the tides. Microbial decay was present in most of the infested timbers; whether this is a prerequisite for infestation remains undetermined.

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The identification of *Polydrusus splendidus* (Herbst) (Curculionidae) - errors in current keys

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Mr Norman Heal has kindly drawn my attention to errors in the keys of Joy (1932) and Morris (1997) which make the identification of *Polydrusus splendidus* (Herbst) (= *sericeus* (Schaller)) difficult, especially for beginners.

Joy (1932) includes *P. splendidus* in the group of species with "femora simple", Morris (1997) with those having "femora without any trace of a tooth underneath". Both statements are erroneous. *P. splendidus* usually has teeth, generally small but distinct, on at least the middle femora. The teeth are most often even smaller on the fore and hind femora, and are not infrequently obsolete on one or both of them. Indeed, there is considerable variation in the character, with some specimens having very distinct (though small) teeth and others almost conforming to the condition specified in the keys.

The intention, presumably in both keys, was to contrast the strong femoral teeth of *P. cervinus* (Linnaeus) and its allies (subgenus *Eustolus* Thomson) with the condition in the other species of the genus, but it is unfortunate that this should have been done in such inaccurate terms.

The keys of Hoffmann (1950) and Smreczynski (1981), the most readily accessible continental works, are based on the subgenera of *Polydrusus* and use other characters for distinguishing them and the species. *P. splendidus* is monotypically placed in *Thomsononymus* Desbrochers, and is a particularly distinct species, making it especially regrettable that its identification is unreliable using British literature.

The most satisfactory correction to the British keys would be to rewrite them. This would entail considerable alteration, and a more immediate correction, as a compromise, may be made by modifying couplet 3 of Morris's (1997) key (p. 35) as follows:

- 3 All femora clearly and strongly toothed underneath (fig. 164) (subgenus *Eustolus* Thomson). 4
- Femora without a tooth (fig. 165), or with a small but often distinct one, at least on mid-femora (in *P. splendidus*, couplet 9) 7

A similar correction could be made to Joy's key.

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A review of *Longitarsus nigerrimus* (Gyllenhal) (Chrysomelidae) records from the British Isles

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Introduction

Longitarsus nigerrimus (Gyllenhal) (Chrysomelidae) was included by Shirt (1987) and Hyman (1992) as Endangered, Red Data Book 1 status, because it had apparently not been recorded in the UK since 1933, and prior to that, it had been recorded from very few sites. The species was rediscovered at Week Common near Hurn in 1996, although an earlier record from 1958 was found by the writer (see below).

The only reason I can suggest for the lack of records since 1933, with the exception of the 1958 find, is that nobody has specially looked for it. I can only presume that the coleopterists of the day had collected, or been given, a series of specimens for their collections, and information on precise collecting localities or methods of locating the species were not handed down to the following generation.

Critical review of historical British Isles records

The first reference to *Longitarsus nigerrimus* in Britain was by Tomlin & Joy (1908), repeated by Tomlin & Sharp (1911). Their specimens came from the Lincolnshire coast, with later reports from Middlesbrough and Scotland. However, Tomlin & Sharp (1912) indicated later that their species was not Gyllenhal's species, but could have been *L. plantagomaritimus* Dollman. Donisthorpe (1944) suggested that early *L. nigerrimus* records from the Lincolnshire coast were based on dark examples of the common and widespread *L. luridus* (Scopoli). Other evidence suggests that the former conclusion was at least partly correct as there is a specimen of *L. plantagomaritimus* from Gravesend in The Natural History Museum, London (NHM), received from N.H. Joy's collection, labelled as *nigerrimus*.

Sharp (1911) was the first to discover the true *Longitarsus nigerrimus* in Britain, collecting a specimen from moss in a boggy pit on Setley Plain, New Forest, in September 1911. The earliest dated specimens from David Sharp's collection in NHM are four specimens on one card with the data "Setley 15.ix.1911" written on the card in Sharp's handwriting. However, Sharp's note refers to a specimen and it is possible that a single dissected male on a card with the data "nigerrimus Setley D.S. 11.x.1911" in Sharp's handwriting on the card was mislabelled and should read 11.ix.1911. Specimens collected on 28.ii.1912 were also labelled Setley by Sharp. He also collected further specimens (11 in his collection) on 13.x.1911, 24.x.1911 and 14.ii.1912, these all being labelled "New Forest" (preprinted labels with the dates added by hand). There are three specimens collected by G.C. Champion on 21.x.1911 from the New Forest. In the absence of any evidence to the contrary, it seems most likely that all these Setley and New Forest specimens came from the same locality, i.e. Sharp's original boggy pit on Setley Plain. There is little doubt that Champion must have been taken to this site by Sharp himself.

Harwood (1928) was the next entomologist to record the species in Britain. He collected three specimens from near Studland, Dorset, all from different parts of the locality in *Sphagnum* on

30.x.1927. He also referred to finding the species commonly in a peaty bog from near Ringwood, Hampshire, in September 1926 and again in the same locality in May 1927.

Information from records of this species held by the Chrysomelidae recording scheme gathered by M.L. Cox gave the following date and locality data: 17.ix.1926 Ringwood (Harwood); 21.ix.1926 Hurn (Nicholson/Harwood); 25.ix.1926 New Forest (E.C. Bedwell); 17.x.1926 near Ringwood (Harwood), specimens from C.E. Tottenham's collection in NHM; 7.v.1927 Hurn (Donisthorpe), specimens in NHM labelled "Hern" [sic]; 21.vi.1929 Hurn (Nicholson/Harwood); and 21.ix.1933 Hurn (Nicholson/Harwood).

These locality data, summarized in Shirt (1987), give the impression that the species was collected from three localities during this period, i.e. Hurn, near Ringwood, and the New Forest. However, Harwood (1928) stated that the May 1927 specimens were from the same locality as the September 1926 specimens, suggesting that only a single locality was involved. This inference is supported by data from specimens which I examined in the Manchester Museum collection in April 1998. From this time period, all 28 specimens were from Hurn, collected by P. Harwood, and dated 17.ix.1926, 21.ix.1926, 25.ix.1926 and 21.ix.1933. These are the same dates as those above, gathered from other sources. It seems most probable that Harwood discovered the species on 17th September, took Nicholson to the same site on the 21st and Bedwell on 25th September. Information from E.C. Bedwell's collecting diaries substantiates this. For the 25th September 1926, Bedwell's diary entry included, among others, 40 *Longitarsus nigerrimus* in *Sphagnum* and two *Caenopsis fissirostris* (Walton) (Curculionidae) in a sand-pit when visiting the New Forest with P. Harwood. They clearly visited various habitats together on this date and the general locality datum "New Forest" as used in the diary and on his specimens is thus very misleading. C.E. Tottenham's specimens from Harwood were dated 17.x.1926, but this may be in error for 17.ix.1926.

From the review of these early records, it is apparent that *Longitarsus nigerrimus* was known from only three localities in Britain: Setley Plain in the New Forest (of the order of 20 specimens collected), Harwood's peaty bog near Ringwood/Hurn (over 100 specimens collected) and near Studland, Dorset (3 specimens recorded). Thus, all the UK published records are from the Hampshire Basin in Dorset (VC 9) and South Hampshire (VC 11).

The last published record appears to be that of Bullock (1932), who recorded a few specimens of the species as new to Ireland by sweeping rushes *Juncus* and shaking *Sphagnum* from Guitane Bog near Killarney, Co. Kerry, with date unspecified. Records of neolithic sub-fossils from Shapwick Heath, Somerset were quoted by Duff (1993).

While examining the specimens in the Manchester Museum in April 1998, a specimen of *L. nigerrimus* was noted with data "2.7.1958 Blackgang I.O.W. [Isle of Wight] B.D. Cooke". This extraordinary record appears not to have been published and has certainly been overlooked until now. B.D. Cooke was probably still in his teens at the time and unfortunately he died in 1960 while on National Service in Singapore. This record clearly needs to be followed up as soon as possible because there does not seem to be any suitable habitat for this species at this locality.

Rediscovery in South Hampshire

Since it seemed most unlikely that the lack of recent records was due to the disappearance of the species, an attempt was made to relocate it. More recent continental literature, for example Mohr (1962, 1966) also noted the species' occurrence in bogs, with bladderwort *Utricularia* spp. as its host. Armed with this information and my own knowledge of the Hampshire Basin area from my childhood, some possible sites were visited in 1994, but without success. With the help of Mr Robin Walls from Bournemouth, two sites known

from his previous botanical surveys to contain *Utricularia* were identified. We were unable to find any *Longitarsus nigerrimus* in the pits near St Leonards, but were successful in finding it in the small area of bog at the northern edge of Week Common, near Hurn (SU 131002), from which *Utricularia minor* had been recorded. Although Hurn now lies in the county of Dorset, it falls within the Watsonian vice-county of South Hampshire (VC 11).

Permission to visit Week Common, part of a private estate, was obtained in the autumn of 1995. The site was visited on 9th March 1996, when the bog was well flooded. By carefully pushing some of the tussock tops at the water's edge into the water, beetles taking refuge from the flood waters were floated on the water's surface. *Longitarsus nigerrimus* could then be readily collected from the surface. One very productive tussock contained between 50 and 100 individuals, otherwise specimens were observed at the rate of about 1 per 2 m of water's edge. A short series of voucher specimens was taken, the rest being released on the vegetation.

Subsequent visits during 1997 and 1998 enabled the species' biology to be discovered. Further details will form a separate paper, but in summary, *L. nigerrimus* cannot swim underwater, so access to its host, *Utricularia minor* (at least in the UK), for feeding and reproduction, is only possible in later summer when water levels fall and expose *Utricularia* leaves and stems to above the water's surface.

Further fieldwork in 1998 failed to relocate *L. nigerrimus* at two of its former sites, Setley Plain and Studland, although parts of Studland Heath National Nature Reserve contained very suitable-looking habitat. However, a new locality for the species was discovered at Common Moor, Burley Street (SU 205043), in the New Forest on 23rd September 1998, with further observations made in November 1998 and April 1999. At this site on the September visit, the RDB1 staphylinid *Acylophorus glaberrimus* (Herbst) was found, also being recorded in May 1999.

During 1999, a further two new sites for *L. nigerrimus* were found in the New Forest. On 24th April, Garth Foster found at least ten specimens at Hatchet Pond (SU 365016), by sinking the mat of bladderwort and *Sphagnum* in a small pool (2 x 1 m) in a complex of such pools at the edge of the main pond. On 18th September, Don Goddard and myself found it, by sinking vegetation, spread over an extensive area (c.200 m) of the riverside bog to the north of Black Down (SU 348074), adjacent to the Beaulieu River. The place name Withycombe Shade is marked on the 1:25,000 OS maps, but not on the 1:50,000 maps. This site holds the most extensive UK colony of *L. nigerrimus* known to date, and is thus of major importance for the species' conservation. Several other coleopterists collected the species from this site the following day, 19th September 1999. Other rare species from this site included the staphylinids *Stenus kieserwetteri* Rosenhauer, *Paederus caligatus* Erichson and *Acylophorus glaberrimus*, as well as the ant-mimicking spider *Myrmarachne formicaria* (De Geer).

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Eridge Park, E. Sussex, a little-known site for saproxylic Coleoptera

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Eridge Park (TQ 53) just south of Tunbridge Wells, East Sussex, is an ancient park dating back at least 800 years and may have enclosed some of the original "wilderness" rather than being made on wholly cleared or farmed land (Rose, 1995). The park has large areas of ancient broadleaved woodland containing ancient oaks *Quercus*, beech *Fagus*, maple *Acer* and ash *Fraxinus*; more open heathy areas with Bracken *Pteridium aquilinum*, Purple Moor Grass *Molinia caerulea* and Heather *Calluna vulgaris*; wet areas with carr, mire vegetation, and damp grassland. Eridge Park is a privately owned SSSI, rated Grade 1 in the Nature Conservation Review (Ratcliffe, 1977) and was listed as an important pasture-woodland in Harding & Rose (1986) because of its rich epiphyte flora, but the Coleoptera were unknown at that time.

During 1984 I paid three half-day visits to the park, and subsequently between 1989 and 1993, when I lived in Tunbridge Wells, I paid ten more half-day visits. All the Coleoptera in the following list were collected in the northern part of the park in squares TQ 5635, 5735 and 5835. Most of the specimens were collected by sweeping or examination of dead fallen timber. During the 1987 hurricane a large number of beech, and some oak trees were blown down in this part of the park, and quite a lot of fallen timber was still present in the area surveyed between 1989 and 1993.

For completeness I have included in the list those saproxylic Coleoptera recorded on the JNCC Invertebrate Site Register database, with a reference to the source of the record. I have followed Fowles *et al.* (1999) in deciding what to include as a saproxylic species. 81 species of saproxylic Coleoptera have been recorded from the park (see Appendix), of which 26 species were included in the list of species indicative of the continuity of dead-wood habitats in ancient woodlands by Harding & Rose (1987). There are five Grade 2 indicators and 21 Grade 3 indicators, giving Eridge Park an Index of Ecological Continuity of 31 (Alexander, 1988). Using the scoring system of Fowles *et al.* (1999), Eridge Park has a Saproxylic Quality Index (SQI) of 342.0. 20 of the species recorded from the park, 15 of which are saproxylic species, are considered to have either Red Data Book (RDB) or Notable status as listed in Hyman (1992, 1994).

In comparison with some other large ancient parklands in Sussex, such as Arundel Park, the saproxylic Coleoptera of Eridge Park have scarcely been investigated. The limited amount of collecting I have done in one area of the park suggests that it has an important saproxylic coleopterous fauna, and the list would undoubtedly be much longer if flight-interception traps and other trapping methods had been used, and other areas of the park had been investigated. The IEC score of 31 indicates a site of national importance (Alexander, 1988), however the SQI score of 342.0 is well below the threshold value of 500 which has been suggested as indicating national importance by that measure (Fowles,

Alexander & Key, 1999). Nevertheless, Eridge Park is undoubtedly of local significance, as there is only one East Sussex site for saproxylic Coleoptera listed in Fowles *et al.* (1999) and none in Harding & Alexander (1994).

The most interesting species recorded were the following:

Acrulia inflata (Gyllenhal) (Staphylinidae). A single specimen was collected on 4th October 1992. This species has a mainly northern and western distribution in Britain. Its presence at Eridge Park may reflect the relatively high rainfall of the Sussex Weald and the high humidity of the woodlands, which apparently accounts for the occurrence of sensitive oceanic plants far to the east of their general range (Rose, 1995). The Eridge Park record is probably one of the most southeastern for this species, although I did collect a specimen on 10th August 1971 in my parents' garden in central London. This species has not been previously recorded from E. Sussex.

Agrilus pannonicus (Piller & Mitterpacher) (Buprestidae). Characteristic D-shaped holes were found in the bark of several wind-felled oaks. Similar evidence of this species was also seen on wind-felled oaks on Tunbridge Wells Common (W. Kent) in the same period. These trees were probably blown down during the 1987 hurricane, and the quantity of dying wind-blown oaks available the following year might be one of the reasons why this species has spread so rapidly. It can be very abundant locally, judging from the hundreds of emergence holes I saw in a section of the trunk of a recently felled oak tree I examined at a recreation ground in Hawkenbury, Tunbridge Wells, in June 1993.

Xyletinus longitarsis Jansson (Anobiidae). A single specimen was swept from grass and other low-growing vegetation at dusk on 27th June 1993, in the vicinity of large fallen and standing beech trees. This appears to be one of the most recent records for this scarce species and the first record for E. Sussex, although it has been recorded from Parham Park, W. Sussex (Johnson, 1975).

Cicones variegata (Hellwig) (Colydiidae). Two specimens were taken on a hard perennial bracket fungus (*Ganoderma* sp.?) on a large beech tree, on 12th June 1992. This appears to be the first record of this species for E. Sussex.

The following notable non-saproxylic species of Coleoptera were also recorded: *Gyrophana joyioides* Wüsthoff (Staphylinidae) (**Notable**); *Rhagonycha lutea* (Müller) (Cantharidae) (**Nb**); *Adonia variegata* (Goeze) (Coccinellidae) (**Nb**); *Cryptocephalus parvulus* (Müller) (Chrysomelidae) (**Nb**); *Rhynchites tomentosus* Gyllenhal (Attelabidae) (**Nb**).

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Appendix: Saproxylic Coleoptera recorded from Eridge Park.

Key: C = common; L = local; VL = very local; U = unknown; KNAA = K.N.A. Alexander; PJH = P.J. Hodge. The statuses given within brackets are the amended statuses given in Fowles *et al.* (1999).

Species	Status	Indicator Grade	Source of JNCC record
Histeridae			
<i>Abraeus globosus</i> (Hoffmann)	L(VL)		also KNAA
<i>Paromalus flavicornis</i> (Herbst)	L		
Leiodidae			
<i>Agathidium varians</i> Beck	L		also KNAA
Scydmaenidae			
<i>Stenichnus bicolor</i> (Denny)	L(VL)	3	
Scaphidiidae			
<i>Scaphidium quadrimaculatum</i> Olivier	L		
<i>Scaphisoma agaricinum</i> (Linnaeus)	L		
Staphylinidae			
<i>Acrulia inflata</i> (Gyllenhal)	L		
<i>Phloeonomus punctipennis</i> Thomson	L		
<i>Phloeocharis subtilissima</i> Mannerheim	L		
<i>Gabrius splendidulus</i> (Gravenhorst)	C		
<i>Gyrophana angustata</i> (Stephens)	Nb		
<i>Placusa pumilio</i> (Gravenhorst)	L		
<i>Anomognathus cuspidatus</i> (Erichson)	C(L)		
<i>Leptusa pulchella</i> (Mannerheim)	L		
<i>Dinaraea aequata</i> (Erichson)	C		
Pselaphidae			
<i>Euplectus piceus</i> Motschulsky	C		
Lucanidae			
<i>Dorcus parallelipedus</i> (Linnaeus)	L		
<i>Sinodendron cylindricum</i> (Linnaeus)	C(L)	3	

Scirtidae			
<i>Prionocyphon serricornis</i> (Müller)	Nb	2	
Buprestidae			
<i>Agrius pannonicus</i> (Piller & Mitterpacher)	Na(Nb)	2	
Elateridae			
<i>Denticollis linearis</i> (Linnaeus)	L		
<i>Stenagostus rhombeus</i> (Olivier)	L(VL)	3	KNAA
<i>Melanotus villosus</i> (Fourcroy)	C		
Cantharidae			
<i>Malthinus flaveolus</i> (Herbst)	C		
<i>Malthinus seriepunctatus</i> Kiesenwetter	L		also PJH
<i>Malthodes fuscus</i> (Waltl)	L		also PJH
<i>Malthodes marginatus</i> (Latreille)	C		
<i>Malthodes minimus</i> (Linnaeus)	C		
Dermestidae			
<i>Ctesias serra</i> (Fabricius)	Nb(VL)		
Anobiidae			
<i>Hemicoelus fulvicornis</i> (Sturm)	C		
<i>Ptilinus pectinicornis</i> (Linnaeus)	C		
<i>Xyletinus longitarsis</i> Jansson	RDB2		
Cleridae			
<i>Thanasimus formicarius</i> (Linnaeus)	L(VL)		
Melyridae			
<i>Malachius bipustulatus</i> (Linnaeus)	C		
Nitidulidae			
<i>Carpophilus sexpustulatus</i> (Fabricius)	L	3	
<i>Epuraea pallescens</i> (Stephens)	U(L)		
<i>Glischrochilus quadriguttatus</i> (Fabricius)	L		
Rhizophagidae			
<i>Rhizophagus bipustulatus</i> (Fabricius)	C		
Cucujidae			
<i>Pediacus depressus</i> (Herbst)	Na	2	
<i>Pediacus dermestoides</i> (Fabricius)	L(VL)	3	also KNAA
Silvanidae			
<i>Silvanus bidentatus</i> (Fabricius)	Nb	2	
Cryptophagidae			
<i>Henoticus serratus</i> (Gyllenhal)	L		
<i>Cryptophagus dentatus</i> (Herbst)	U(C)		
Erotylidae			
<i>Triplax aenea</i> (Schaller)	L	3	
<i>Dacne bipustulata</i> (Thunberg)	L		
Cerylonidae			
<i>Cerylon fagi</i> Brisout	Nb	3	
<i>Cerylon ferrugineum</i> Stephens	L		also KNAA
<i>Cerylon histeroides</i> (Fabricius)	L		also KNAA
Endomychidae			
<i>Endomychus coccineus</i> (Linnaeus)	L		
Latridiidae			
<i>Enicmus testaceus</i> (Stephens)	L		

Ciidae			
<i>Octotemnus glabriculus</i> (Gyllenhal)	C		PJH
<i>Sulcaxis affinis</i> (Gyllenhal)	L		
<i>Cis pygmaeus</i> (Marshall)	L		
<i>Cis vestitus</i> Mellié	L		
<i>Cis boleti</i> (Scopoli)	C		
<i>Cis fagi</i> Waltl	L		
<i>Cis nitidus</i> (Fabricius)	L		
<i>Cis setiger</i> Mellié	L		
Mycetophagidae			
<i>Litargus connexus</i> (Fourcroy)	L		
<i>Mycetophagus atomerius</i> (Fabricius)	L	3	also KNAA
<i>Mycetophagus quadripustulatus</i> (Linnaeus)	L		
Colydiidae			
<i>Cicones variegata</i> (Hellwig)	Na(Nb)	2	
<i>Bitoma crenata</i> (Fabricius)	L(VL)	3	also KNAA
Tenebrionidae			
<i>Eledona agricola</i> (Herbst)	Nb(VL)	3	
<i>Prionychus ater</i> (Fabricius)	Nb	3	
Tetratomidae			
<i>Tetratoma fungorum</i> Fabricius	L	3	
Salpingidae			
<i>Rhinosisimus ruficollis</i> (Linnaeus)	C		
Pyrochroidae			
<i>Pyrochroa coccinea</i> (Linnaeus)	Nb(VL)	3	also KNAA
Melandryidae			
<i>Orchesia undulata</i> Kraatz	L(VL)	3	
<i>Conopalpus testaceus</i> (Olivier)	Nb	3	
Scraptiidae			
<i>Anaspis frontalis</i> (Linnaeus)	C		
Cerambycidae			
<i>Rhagium bifasciatum</i> Fabricius	C		
<i>Rhagium mordax</i> (De Geer)	C		
<i>Stenurella melanura</i> (Linnaeus)	L		also PJH
<i>Leptura maculata</i> (Poda)	C		
Curculionidae			
<i>Phloeophagus lignarius</i> (Marshall)	L		
Scolytidae			
<i>Dryocoetinus villosus</i> (Fabricius)	L		
<i>Taphrorychus bicolor</i> (Herbst)	Na(Nb)		
<i>Trypodendron domesticum</i> (Linnaeus)	L	3	
<i>Xyleborinus saxeseni</i> (Ratzeburg)	L(VL)	3	
Platypodidae			
<i>Platypus cylindrus</i> (Fabricius)	Nb	3	

***Aegialia sabuleti* (Panzer) (Scarabaeidae) in Surrey**

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Since the surprise discovery of this species in Sussex (Hodge, 1991), I had suspected that it ought to occur beside the River Wey in Surrey, which locally has very similar characteristics to the River Rother at the original West Sussex site at Woolbeding. There adults are found amongst sand and rotting leaves and twigs heaped up on the banks by winter flooding. The beetles probably breed in this debris, with adults regularly found in damp sand adjacent to litter layers. Adults are also found crawling over the surface, especially in the spring.

I finally found a single female on a sandy bank of the River Wey at Thundry Meadows, Surrey (SU 8944) on 6.v.1999, the first record for VC 17. It is worth noting that all the females I have encountered to date (c.20) have been all-black; males can have quite reddish elytra. This colour difference has also been noted from Scottish populations (Roger Booth, *pers. comm.*). Its affinity with the other British *Aegialia* Latreille is surprising, as it bears little resemblance to either. Indeed it is likely to be mistaken for an *Aphodius* Illiger species, especially *A. brevis* Erichson. However, the crenulate edge of the thorax is distinctive (Fig. 1). In time a revision of the group may shed some light on the situation.

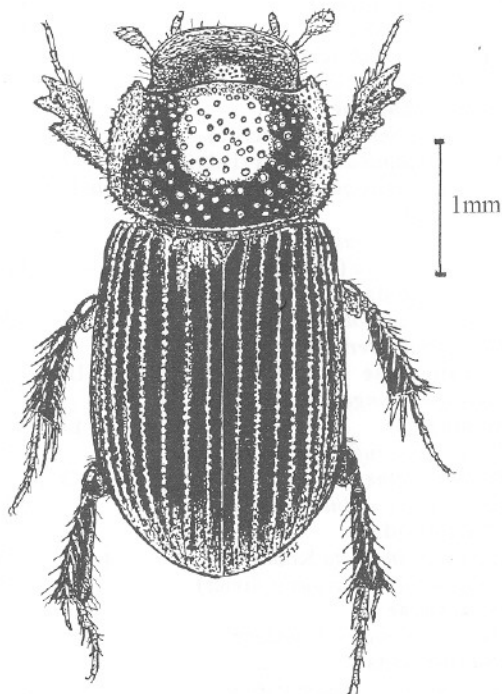


Fig. 1: *Aegialia sabuleti* (Panzer) (Scarabaeidae) (scale = 1 mm) J. S. Denton.

Reference

HODGE, P.J. 1991. *Aegialia sabuleti* (Panz.) (Col., Scarabaeidae) in West Sussex. *Entomologist's Mon. Mag.* 127: 90.

Records of rare and notable beetle species from riverine sediments in Scotland and northern EnglandM. D. Eyre¹, M. L. Luff² & D. A. Lott³¹ Entomological Monitoring Services (EMS), 13 Manor Grove, Newcastle upon Tyne NE7 7XQ² Dept of Agricultural & Environmental Science, The University, Newcastle upon Tyne NE1 7RU³ Leicestershire Museums, Arts and Records Service, County Hall, Glenfield, Leicester LE3 8RA**Introduction**

Luff, Eyre & Jessop (1996) reported a number of records from pitfall trapping on exposed riverine sediments (ERS) by the River Tyne, whilst one of the surveys in Eyre, Luff & Lott (1998) was pitfall trapping on ERS by the Rivers Carron, Nith, Spey and Tweed carried out in 1996. Considerably more ERS samples were taken by these rivers in 1997 as well as ERS sites by a number of tributaries. The sites in the Carron area were by the Allt a'Chairn, Glen Docherty Burn and Ledgowan Burn. Sites on the tributaries of the Spey were by the Rivers Avon, Calder, Druié, Dulnain, Feshie and Livet and the Dorback Burn. The sampling on the tributaries of the Nith was limited to the Scar Water and Crawick Water. The Scottish sites on the tributaries of the Tweed were by the Ale Water, Allan Water, Kale Water, Northhouse Burn and Rankle Burn. In addition, sites on tributaries of the Tweed in northern England by the Rivers Breamish, Glen and Till were pitfalled. This gave a total of 189 sites on ERS sampled in 1996 and 1997 in work on Scottish river ERS. In addition, more work has been carried out on 1995 material from sites by the River Tyne, on 1996 samples from the Rivers South Tyne, Pont and Blyth and in 1997 from sites by the River Coquet, all in Northumberland. This paper reports on the occurrence of rare and notable species recorded from all these pitfall surveys.

Rare and notable species**CANTHARIDAE*****Cantharis obscura* Linnaeus Nb**

A species of woodland and woodland edge, this species was recorded from the River Spey (NN 7097), where the nearest trees were alder *Alnus*, by the River Druié (NH 9110), next to Scots Pine *Pinus* and the River Nith (NX 9186) where the sediment was shaded by mixed broadleaved trees, all in 1997.

CARABIDAE***Amara fulva* (Müller) Nb**

There are records of this species of sandy sites from sediments by the River Tyne in 1995 (NY 9165, NY 9764) and South Tyne in 1996 (NY 7864). It was also found by the Dorback Burn (NJ 0716), the Rivers Calder (NN 7097), Dulnain (NH 8620), Feshie (NH 8401, NH 8502) and Spey (NN 7097, NH 8911) in Scotland and from by the Rivers Breamish (NU 0416) and Till (NU 0425, NT 9930) in Northumberland, all in 1997.

Amara quenseli (Schoenherr) **Na**

This species is restricted to northern Scotland and was found by the Dorback Burn (NJ 0716), in the same area as found by Cooter & Owen (1979), and the Rivers Calder (NN 7097) and Feshie (NH 8401, NH 8502) in 1997.

Asaphidion pallipes (Duftschmid) **Nb**

Found by the River Tyne in 1995 (NY 9165, NY 9764) and South Tyne in 1996 (NY 7864) and from the Ale Water (NT 4620) in the Scottish borders in 1997. Other Scottish records from 1997 were northern, by the Rivers Avon (NJ 1520) and Feshie (NH 8502).

Bembidion bipunctatum (Linnaeus) **Nb**

Recorded from the Rivers Avon (NJ 1520) and Carron (NH 0148, NH 0852, NH 1053) in 1997.

Bembidion litorale (Olivier) **Nb**

Found on sand by the South Tyne in 1996 (NY 7864) and in 1997 from the Dorback Burn (NJ 0716) and the Rivers Calder (NN 7097), Dulnain (NH 8620), Feshie (NH 8502), Spey (NN 7097) and Till (NU 0425, NT 9930).

Bembidion monticola Sturm **Nb**

Another species found by the Tyne in 1995 (NY 9165, NY 9764) and South Tyne in 1996 (NY 7864), as well as by the River Blyth (NZ 1577) in 1996. It is very local in Scotland (Luff, 1998), with only 5 post-1970 10 km squares, but it was recorded from the Allt a'Chairn (NH 0260), the Rivers Livet (NJ 2225), Spey (NJ 3358) and Tweed (NT 1535, NT 4932) and the Northhouse Burn (NT 4406) in 1997, as well as by the Till (NT 9930) in Northumberland.

Bembidion schueppeli Dejean **Na**

This species is readily recorded in the England/Scotland border country with six records in Eyre, Luff & Lott (1998). Recorded from by the Rivers South Tyne (NY 7864), Blyth (NZ 1577) and Pont (NZ 1271) in 1996, by the Coquet (NT 9503) and Till (NU 0425, NT 9930, NT 9337) in 1997, all in Northumberland. On the Scottish side of the border it was found in 1997 by the Ale Water (NT 4620), Allan Water (NT 4609), Kale Water (NT 7615, NT 7823), Northhouse Burn (NT 4406), Rankle Burn (NT 3116) and River Tweed (NT 3039).

Bembidion stomoides Dejean **Nb**

The only additional record for this species was from the River South Tyne at Beltingham (NY 7864) in 1996.

Bembidion testaceum (Duftschmid) **Nb**

Another species found by the River South Tyne at Beltingham (NY 7864) in 1996.

Carabus clatratus Linnaeus **Na**

There were two more records of this mainly moorland species from sediments on the Ledgowan Burn (NH 1255) and the River Carron (NH 1053) in 1997.

Dyschirius angustatus (Ahrens) **RDB3**

A species of sand by rivers, estuaries and coasts, the recent records in Hyman (1992) are for the south coast of England. However, Key (1993) and Lyszkowski, Owen & Sinclair (1994) recorded it from Cumbria and from by the River Nethy near Nethy Bridge and by the Spey at Fochabers in 1991. It was found by the Rivers Avon (NJ 1520), Drurie (NH 9110) and Dulnain (NH 8620) and from the Dorback Burn (NJ 0716) in 1997, all tributaries of the Spey. The Drurie site appears to be very close to that mentioned by Allen (1994) where the species was found in the 1930s and 1940s.

Harpalus quadripunctatus Dejean **Na**

Found by the Dorback Burn (NJ 0716) and the River Spey (NN 7097) in 1997.

Miscodera arctica (Paykull) **Nb**

This species was abundant by the Dorback Burn (NJ 0716), possibly because of the adjacent moraine and also found by another moraine next to the River Dulnain (NH 8620) in 1997.

Perileptus areolatus (Creutzer) **Na**

A specialist sediment species, living deep in the substrate, this 1997 find from Kirkbog by the River Nith (NX 8693) is the only post-1970 record for Scotland, although there is a previous old record from Dumfriesshire (Hyman, 1992; Luff, 1998).

Pterostichus cristatus (Dufour) **Nb**

The recording of this large species, normally found in unmanaged grasslands and woodlands, from sediments by the Rivers Livet (NJ 2225) and Spey (NJ 3358) in 1997, together with the northern Scottish records in Eyre, Luff & Lott (1998), may indicate that it has now spread a considerable distance from the original north-east England distribution centre. It was also recorded from the Rivers Tyne (NY 9165, NY 9764) in 1995, South Tyne (NY 7864), Pont (NZ 1271) and Blyth (NZ 1577) in 1996.

Pterostichus lepidus (Leske) **Nb**

A dry heathland species (Luff, 1998) it was recorded from sediment by the River Feshie (NH 8401) in 1997.

Pterostichus oblongopunctatus (Fabricius) **Nb**

This woodland species was found in 1997 from the Rivers Drurie (NH 9110), by coniferous wood, and the Spey (NH 8911), by broadleaved woodland.

Thalassophilus longicornis (Sturm) **Na**

This interstitial species was found again by the River Carron (NH 0148) in 1997, having been found in another sediment on this river in 1996 (Eyre, Luff & Lott, 1998). It was also found in 1997 by the Kale Water (NT 7615), the first record for the Tweed catchment and by the River Coquet at Holystone (NT 9602) in Northumberland. This is the first confirmed record for Northumberland as all nineteenth century 'Northumberland' records are actually from Cumberland (Eyre & Luff, 1987).

Trechus rubens (Fabricius) **Nb**

Apparently usually found in coniferous woodland and by streams (Luff, 1998), it was found in Scotland in 1997 by the Ledgowan Burn (NH 1255), the Rivers Drurie (NH 9110), Feshie (NH 8502), Nith (NX 8693), the Ale Water (NT 4620), Kale Water (NT 7615) and Northhouse Burn (NT 4406). In Northumberland it was found by the River Blyth (NZ 1577) in 1996 and the Rivers Tweed (NT 8642) and Till (NT 9930) in 1997. The sediment by the Drurie was by coniferous woodland, the one by the Feshie by birch *Betula* woodland and the rest by various agricultural grasslands.

CHRYSOMELIDAE*Luperus flavipes* (Linnaeus) **Nb**

A species associated with birch *Betula* (Hyman, 1992), there were numerous birch saplings where this species was recorded on the sediments by the River South Tyne (NY 7864) in 1995 and by the River Avon (NJ 1520) in 1997.

Mantura chrysanthemi (Koch) **Na**

Recorded in the Scottish borders again by the Ale Water (NT 4620) and also in Northumberland by the River Till (NT 9337), both in 1997.

Mantura obtusata (Gyllenhal) **Nb**

This species was also found by the Ale Water (NT 4620) in 1997.

Mantura rustica (Linnaeus) **Nb**

Recorded from the River Tyne at Dilston Haughs (NY 9764) in 1995.

COCCINELLIDAE*Coccinella quinquepunctata* Linnaeus **RDB3**

Recording in 1997 added to the three records from 1996 (Eyre, Luff & Lott, 1998) with this species found by the Rivers Avon (NJ 1520), Calder (NN 7097), Drurie (NH 9110), Feshie (NH 8502), Livet (NJ 2225) and Spey (NN 5394). It appears to occur throughout the Spey

catchment and these records expand the known distribution of this species (Majerus *et al.*, 1997).

Scymnus schmidti Fürsch **Nb**

Found by the downstream River Nith (NX 9186) in 1997.

CRYPTOPHAGIDAE

Atomaria nigriventris Stephens **Notable**

Recorded from by the River Tyne at Dilston Haughs (NY 9764) in 1995.

CURCULIONIDAE

Anthonomus conspersus Desbrochers **Nb**

Associated with rowan *Sorbus* (Hyman, 1992), there were few trees by either the River Nith (NX 8693) or the River Glen (NT 9131) where it was found in 1997.

Barynotus squamosus Germar **Nb**

Apparently a species usually recorded in upland situations (Hyman, 1992), this species was found in 1995 by the River Tyne (NY 9165), by the South Tyne (NY 7864) in 1996 and by the Feshie (NH 8502), the Spey (NN 5394, NJ 3358), the Ledgowan Burn (NH 1255), the Nith (NS 5512, NX 9186), the Ale Water (NT 4620), the Northhouse Burn (NT 4406), the Tweed (NT 3039, NT 4932) and the Coquet (NT 9503) in 1997. Only two sites were adjacent to moorland but none were at especially high altitude.

Barypeithes sulcifrons (Boheman) **Nb**

This species of well drained grassland was found by the Kale Water (NT 7615) in 1997.

Brachysomus echinatus (Bonsdorff) **Nb**

Found by the River South Tyne at Beltingham (NY 7864) in 1996.

Glocianus punctiger (Sahlberg) **Nb**

The record of this species for Wester Ross by Collingwood (1957) was beaten from birch *Betula*, which is unusual since it is associated with dandelion *Taraxacum* (Hyman, 1992). Thus, the record from the Kale Water (NT 7823) in 1997 may be the first authentic one for Scotland.

Cryptorhynchus lapathi (Linnaeus) **Nb**

A species found on willows *Salix* (Hyman, 1992), which were not present on the River Glen sediment (NT 9131) where it was recorded in 1997.

Grypus equiseti (Fabricius) **Nb**

Not an uncommon species (Eyre, Luff & Lott, 1998), it was found by the Rivers Tyne (NY 9165, NY 9764, NZ 1365) in 1995 and South Tyne (NY 7864), Pont (NZ 1270, NZ 1271) and Blyth (NZ 1577) in 1996. In 1997 it was also recorded from the Dorback Burn (NJ 0716), the Rivers Avon (NJ 1520), Dulnain (NH 8620), Spey (NN 7097), Tweed (NT 1535), Till (NU 0425, NT 9930, NT 9337), the Ale Water (NT 4620), the Northhouse Burn (NT 4406) and the Rankle Burn (NT 3116).

Hypera diversipunctata (Schrank) **RDB3**

Recorded from a hay meadow in Upper Teesdale by Luff, Eyre & Jessop (1996), the habitat requirements of this species have not been adequately explained (Hyman, 1992). It was recorded in 1995 from sediments by the River Tyne (NY 9165), in 1996 from the South Tyne (NY 7864) and in 1997 from the Nith (NX 8693, NX 9186) and the Kale Water (NT 7615).

Litodactylus leucogaster (Marshall) **Nb**

Found in 1996 on Kelso Anna (NT 7233) by the Tweed.

Notaris aethiops (Fabricius) **Na**

Apparently associated with branched bur-reed *Sparganium erectum*, there are plenty of old records from Scotland (Hyman, 1992). Records from the Rivers Carron (NH 0852), Druie (NH 9110), Dulnain (NH 8620), Spey (NN 7097, NJ 3358), Nith (NX 8693), the Ledgowan Burn (NH 1255) and the Rankle Burn (NT 3116) in 1997, and the earlier record from the Nith in 1996 (Eyre, Luff & Lott, 1998), indicate that it is still widely distributed in Scotland. However, *S. erectum* was not present at any of the sites.

Notaris scirpi (Fabricius) **Nb**

Found by the River Till (NT 9337) in 1997.

Omiamima mollina (Boheman) **Na**

There have been previous records from river sediments (Luff, Eyre & Jessop, 1996) and it was found by the Rivers Tweed (NT 8642) and Till (NT 9930) in 1997.

Orthochaetes setiger (Beck) **Nb**

Recorded from by the Rankle Burn (NT 3116) in 1997, this is another species regularly found by pitfall trapping (Luff, Eyre & Jessop, 1996).

Otiiorhynchus desertus Rosenhauer **Nb**

Found on spoil heaps and dunes in Northumberland (Luff, Eyre & Jessop, 1996), this is also a species of sandy river sediments with records from the River Tyne (NY 9764) in 1995, by the South Tyne (NY 7864) in 1996 and by the Rivers Druie (NH 9110), Dulnain (NH 8620), Feshie (NH 8401), Nith (NX 8693), Till (NT 9930, NT 9337) and the Ale Water (NT 4620) in 1997.

Otiiorhynchus raucus (Fabricius) **Nb**

Recorded by the River Tyne near Watersmeet (NY 9165) in 1995.

Otiiorhynchus scaber (Linnaeus) **Nb**

The records of this species in Eyre, Luff & Lott (1998) were from woodland and moorland northern Scottish sites whilst records generated in 1997 were from sediment, indicating a wide habitat range. All the records were from northern Scotland again, by the Allt a'Chairn (NH 0260), the Glen Docherty Burn (NH 0361) and from by the Rivers Avon (NJ 1520), Carron (NG 9744), Druie (NH 9110), Dulnain (NH 8620), Feshie (NH 8401) and Livet (NJ 2225).

Trachyploesus aristatus (Gyllenhal) **Nb**

Found by the Rivers Glen (NT 9131) and Till (NT 9930) in 1997.

Tropiphorus obtusus (Bonsdorff) **Na**

Riverside sediments are not listed as a habitat for this species by Hyman (1992) but it was found by the River Tyne (NY 9165) in 1995, by the River Pont (NZ 1271) in 1996 and the Rivers Calder (NN 7097), Dulnain (NH 8620), Feshie (NH 8502), Glen (NT 9131), Spey (NJ 3358) and Till (NT 9930) in 1997.

Tropiphorus terricola (Newman) **Nb**

Another species not normally associated with sediment, it was found by the River Tyne (NY 9165, NY 9764) in 1995 and the Rivers Feshie (NH 8502), Nith (NX 9186), Till (NU 0425, NT 9930, NT 9337) and the Kale Water (NT 7615) in 1997.

Tychius parallelus (Panzer) **Na**

There are old records for this species associated with broom *Cytisus* from northern Scotland (Hyman, 1992), but the present record from the River Druie (NH 9110) in 1997 may be the only recent one.

DRYOPIDAE

Dryops nitidulus (Heer) **RDB3**

Previously recorded by Foster (1990) from Northhouse Burn, a record from the River Tyne near Watersmeet (NY 9165) in 1995 is the first for Northumberland.

DYTISCIDAE

Hydroporus ferrugineus Stephens **Nb**

This subterranean species was also found by the River Tyne (NY 9764) in 1995 at a site next to the junction of the Devils Water and Tyne, in contrast to the small site by the Carron where it was found in 1996 (Eyre, Luff & Lott, 1998).

Oreodytes davisii (Curtis) **Nb**

There were records from the Rivers Avon (NJ 1520) and Dulnain (NH 8620) in 1997.

ELATERIDAE*Ctenicera pectinicornis* (Linnaeus) **Na**

Apparently a species of meadows (Hyman, 1992), this species was found by the River Carron (NH 1053, NH 0148) in 1997. There are two post-1950 Scottish records for this species in Mendel & Clarke (1996) but the present records appear to be the most northerly in Britain.

Fleutiauxellus maritimus (Curtis) **Na**

This species was recorded from all the dry sediments with cobbles and boulders sampled. It was found by the River Tyne (NY 9764) in 1995 and from the Allt a'Chairn (NH 0260), Glen Docherty Burn (NH 0361), Dorback Burn (NJ 0716), Allan Water (NT 4609), Kale Water (NT 7615), Rankle Burn (NT 3116), Scar Water (NS 7602) and the Rivers Avon (NJ 1520), Calder (NN 7097), Druie (NH 9110), Dulnain (NH 8620), Feshie (NH 8502, NH 8401), Livet (NJ 2225) and Coquet (NT 9503) in 1997.

Negastrius pulchellus (Linnaeus) **RDB2**

The recording of this species from the Dorback Burn (NJ 0716) and the Rivers Avon (NJ 1520) and Druie (NH 9110), three tributaries of the Spey, in 1997 appears to conflict with the assumption in Hyman (1992) that it may be declining. It was interesting that the records were from sites on unmanaged streams and rivers and not the engineered main river.

Paraphotistus impressus (Fabricius) **Nb**

This is a woodland species and the sediments from the River Tyne (NY 7864) and River Druie (NH 9110) where it was found in 1995 and 1997 were by mixed and coniferous woodland respectively.

ELMIDAE*Riolus cupreus* (Müller) **Nb**

This riffle beetle presumably uses the sediment as a pupation site and it was found by the River Blyth (NZ 1577) in 1996.

Riolus subviolaceus (Müller) **Nb**

This is more common than *R. cupreus*, with over 100 post-1960 10 km square records (Holland, 1980); it was recorded from the Rivers Nith (NS 8107) and Tweed (NT 3039, NT 4932, NT 6231) in 1996.

GEORISSIDAE*Georissus crenulatus* (Rossi) **Na**

A species of damp sand, it was very abundant by the River Till (NU 0425, NT 9930, NT 9337) in 1997 and was also found by the Rankle Burn (NT 3116).

HELOPHORIDAE*Helophorus arvernensis* Mulsant **Nb**

A considerable number of records were generated in 1996 (Eyre, Luff & Lott, 1998) and it was also found by the River Tyne (NY 9165, NY 9764) in 1995 and the Rivers South Tyne (NY 7864), Pont (NZ 1270) and Blyth (NZ 1577) in 1996. In 1997 it was recorded from the Ale Water (NT 4620), Allan Water (NT 4609), Dorback Burn (NJ 0716), Kale Water (NT 7615, NT 7823), Northhouse Burn (NT 4406), Rankle Burn (NT 3116), Scar Water (NS 7602, NS 7701) and the Rivers Avon (NJ 1520), Breamish (NU 0416), Druie (NH 9110), Dulnain (NH 8620), Feshie (NH 8502), Glen (NT 9131), Livet (NJ 2225), Till (NU 0425, NT 9930, NT 9337) and Coquet (NT 9503, NT 9602).

HYDRAENIDAE*Ochthebius bicolon* Germar **Nb**

Recorded from the Rivers Tyne (NY 9165) in 1995, South Tyne (NY 7864), Pont (NZ 1270, NZ 1271) and Blyth (NZ 1577) in 1996 and the Breamish (NU 0416) and Till (NU 0425, NT 9930, NT 9337) in 1997.

Ochthebius exsculptus Germar **Nb**

Found by the River Coquet (NT 9503) in 1997.

HYDROPHILIDAE*Cercyon ustulatus* (Preysslner) **Nb**

This is not specifically a sediment species but was found by the River Blyth (NZ 1577) in 1996 and River Till (NT 9930) in 1997.

Chaetarthria seminulum (Herbst) **Nb**

Recorded from the Rankle Burn (NT 3116) in 1997.

LEIODIDAE*Agathidium marginatum* Sturm **Notable**

A species found in sites such as dunes (Hyman, 1994), it was found on a sandy sediment next to the River Tyne near Watersmeet (NY 9165) in 1995.

Choleva glauca Britten **Notable**

Recorded from moorland, woodland and some sediments by Eyre, Luff & Lott (1998), it was taken on sediments by the Rivers South Tyne (NY 7864) and Pont (NZ 1270, NZ 1271) in 1996 and the River Nith (NX 8693) and the Kale Water (NT 7615) in 1997.

Colon viennense Herbst **RDBK**

There is an old record from the 'Solway district' and it has been found previously on river sediments (Hyman, 1994) and by the River Nethy in northern Scotland (Jones, 1988). It was found by the River Tweed (NT 1535, NT 6231) in 1997, probably the only recent records for southern Scotland.

Liocyrta minuta (Ahrens) **Notable**

In addition to the records from sediments in Eyre, Luff & Lott (1998), there are 1997 records from the Rivers Calder (NN 7097) and Till (NT 9930).

NITIDULIDAE*Thalycra fervida* (Olivier) **Nb**

Previously found in coniferous woodland in Scotland (Hyman, 1994), the sediment next to the River Druie (NH 9110) from where it was recorded in 1997 was adjacent to mixed woodland.

PSELAPHIDAE*Brachygluta pandellei* (Saulcy) **RDBK**

Found by the upstream River Tweed (NT 1535) and also by two of the smaller tributaries, the Northhouse Burn (NT 4406) and the Rankle Burn (NT 3116), all in 1997.

SCARABAEIDAE*Aegialia sabuleti* (Panzer) **Nb**

In addition to the numerous records in Eyre, Luff & Lott (1998), it has also been found by the River Tyne (NZ 1365) in 1995, the South Tyne (NY 7864) in 1996. In 1997 it was recorded from the Glen Docherty Burn (NH 0361), the Dorback Burn (NJ 0716) and the Rivers Avon (NJ 1520), Calder (NN 7097), Druie (NH 9110), Dulnain (NH 8620), Feshie (NH 8502, NH 8401), Nith (NX 8693), Spey (NN 5394, NN 7097) and Till (NU 0425, NT 9930, NT 9337).

SCIRTIDAE*Hydrocyphon deflexicollis* (Müller) **Nb**

There are records from 1997 from the Ale Water (NT 4620), River Carron (NG 9744), Northhouse Burn (NT 4406), Rankle Burn (NT 3116) and River Spey (NN 7097).

SILPHIDAE*Aclypea opaca* (Linnaeus) **Na**

Sinclair (1994) and Eyre, Luff & Lott (1996) recorded this species from a number of non-riverine sites in Scotland and northern England but it was taken on sediments by the Rivers Calder

(NN 7097), Nith (NX 8693, NX 9186), Tweed (NT 1535) and by the Kale Water (NT 7615) in 1997.

Nicrophorus interruptus Stephens **Nb**

Recorded from the River Tyne near Watersmeet (NY 9165) in 1995.

STAPHYLINIDAE

Aleochara brevipennis Gravenhorst **Notable**

Recorded from the Spey in 1996 (Eyre, Luff & Lott, 1998), there were more records from northern Scotland in 1997 from the Rivers Carron (NG 9744), Calder (NN 7097), Druie (NH 9110), Feshie (NH 8502) and Spey (NN 7097), by the River Nith (NX 8693) and Kale Water (NT 7615) in southern Scotland and by the River Till (NT 9337) in Northumberland. This is not a scarce species with records from more than 100 10 km squares (Welch, 1997).

Aleochara ruficornis Gravenhorst **Notable**

Found by the Rivers Tyne (NY 9165) in 1995, South Tyne (NY 7864), Pont (NZ 1270, NZ 1271) and River Blyth (NZ 1577) in 1996 and by the River Nith (NS 8107) in 1997.

Aleochara verna Say **RDBK**

Welch (1997) rated this species as at best Notable and it was recorded from the Rivers Calder (NN 7097), Feshie (NH 8502) and Nith (NX 8693) and the Kale Water (NT 7615) in 1997.

Alevonota rufotestacea (Kraatz) **Notable**

Found by the River Glen (NT 9131) in 1997.

Alcoconota eichhoffi (Scriba) **Notable**

A species previously recorded from riverine sediments, it was found by the Ledgowan Burn (NH 1255), the Northhouse Burn (NT 4406) and the River Tweed (NT 1535) in 1997. Apparently recorded north to mid Perthshire (Hyman, 1994), the record for Ledgowan Burn may be the most northerly in Britain.

Atheta aquatilis (Thomson) **Notable**

Recorded from the River Tyne (NY 9165) in 1995.

Atheta ebenina (Mulsant & Rey) **RDBK**

This species was new to Northumberland from the River South Tyne at Beltingham (NY 7864) in 1996 and was also found by the Ale Water (NT 4620) in 1997, in the same area as the records from by the River Tweed in 1996 (Eyre, Luff & Lott, 1998).

Atheta obfuscata (Gravenhorst) **Notable**

Said to be found as far north as south Yorkshire (Hyman, 1994), this species was found by the River Tyne (NY 9165) in 1995 (Luff, Eyre & Jessop, 1996). It was also recorded from the South Tyne (NY 7864) in 1996 and Till (NU 0425, NT 9337) in 1997, also in Northumberland, and from the Ale Water (NT 4620) in the Scottish borders in 1997. These appear to be the first records for northern England and Scotland respectively.

Atheta sylvicola (Kraatz) **RDBK**

The unconfirmed record from south Northumberland in Hyman (1994) is confirmed by a record from the River South Tyne at Beltingham (NY 7864) in 1996.

Bledius arcticus Sahlberg **RDBI**

Found on sites by the Rivers Avon (NJ 1520), Druie (NH 9110), Dulnain (NH 8620), Feshie (NH 8502, NH 8401) and Spey (NJ 3358) and the Dorback Burn (NJ 0716) in 1997, all in north-east Scotland.

Carpelimus subtilis (Smetana) **Notable**

Recorded north to north Northumberland (Hyman, 1994) and found there again, on damp sand, by the River Till (NT 9337) in 1997.

Chiloporata rubicunda (Erichson) **Notable**

Taken on sediments by the River Tyne (NY 9165) in 1995 and South Tyne (NY 7864) in 1996.

Deleaster dichrous (Gravenhorst) **Nb**

To add to the numerous records in Eyre, Luff & Lott (1998), this species was found by the River Tyne (NY 9165) in 1995 and from by the Ale Water (NT 4620), Allan Water (NT 4609), Crawick Water (NS 8218), Glen Docherty Burn (NH 0361), Kale Water (NT 7615) and Northhouse Burn (NT 4406) and by the Rivers Carron (NH 0852, NH 0148), Druie (NH 9110), Feshie (NH 8502), Glen (NT 9131), Nith (NX 8693), Spey (NH 8911) and Tweed (NT 3039).

Erichsonius signaticornis (Mulsant & Rey) **Nb**

Previously recorded from southern Scotland (Hyman, 1994), this species was recorded in 1997 from the Glen Docherty Burn (NH 0361), possibly the first record for northern Scotland. Other records in 1997 from southern Scotland were from the Ale Water (NT 4620), Allan Water (NT 4609), Kale Water (NT 7615), Northhouse Burn (NT 4406), Rankle Burn (NT 3116), Scar Water (NS 7602) and River Tweed (NT 1535) and from Northumberland by the Rivers Till (NT 9930), Breamish (NU 0416) and Coquet (NT 9503, NT 9602).

Euryporus picipes (Paykull) **RDBK**

The records in Eyre, Luff & Lott (1998) were from woodland and marsh but this species was taken on sediment by the Ale Water (NT 4620) in 1997.

Gabrius bishopi Sharp **Nb**

Recorded from the Ale Water (NT 4620), Allan Water (NT 4609), Kale Water (NT 7615), Northhouse Burn (NT 4406) and the Rivers Nith (NX 8693, NX 9186), Till (NT 9930, NT 9337) and Coquet (NT 9503), all in 1997.

Gabrius osseticus (Kolnati) **Nb**

This species has been recorded from a number of habitat types, not all of them riverine, but it was found on sediments by the River Tyne (NY 9165) in 1995 and by the Rivers Carron (NH 1053) and Nith (NX 9186) in 1997. The record for by the Carron appears to be the first for northern Scotland (Hyman, 1994).

Hydrosmeeta delicatula (Sharp) **RDBK**

There is an old record for this species from by the River Druie (Allen, 1994) and it was found in sediment by the River Carron (NH 0148) in 1997, which appears to be the first record for north-west Scotland (Hyman, 1994).

Hydrosmeeta fragilis (Kraatz) **Notable**

Recorded in 1997 from the Allan Water (NT 4609) and Dorback Burn (NJ 0716) and the Rivers Calder (NN 7097), Carron (NG 9744), Spey (NJ 1335) and Coquet (NT 9503).

Hydrosmeeta thinobioides (Kraatz) **Notable**

This species is only listed for southern Scotland in Hyman (1994) but it was found in northern Scotland in 1997 from the Dorback Burn (NJ 0716) and the Rivers Calder (NN 7097), Carron (NH 0148), Dulnain (NH 8620) and Spey (NJ 1335). It was also found in 1997 by the Allan Water (NT 4609), Rankle Burn (NT 3116) and River Coquet (NT 9503, NT 9602).

Hydrosmeectina septentrionum Benick **Notable**

Found by the River Carron (NH 0148) in 1997.

Ilyobates subopacus Palm **Notable**

Hyman (1994) states that there has been confusion of this species and *I. nigricollis* (Paykull) leading to uncertainty about whether it has been recorded from Scotland. However, it certainly occurs in southern Scotland with records in 1997 from the Ale Water (NT 4620), Allan Water (NT 4609), Crawick Water (NS 8218), Kale Water (NT 7615) and Northhouse Burn (NT 4406). It was also recorded from by the Rivers South Tyne (NY 7864), Pont (NZ 1270, NZ 1271) and Blyth (NZ 1577) in 1996 and River Till (NU 0425, NT 9930, NT 9337) in 1997.

Lamprinodes saginatus (Gravenhorst) **Na**

Recorded from the Kale Water (NT 7823) in 1997.

Lathrobium angusticolle Boisduval & Lacordaire **Nb**

This specialist sediment species was recorded in 1997 from the Allan Water (NT 4609), Crawick Water (NS 8218), Glen Docherty Burn (NH 0361) and Kale Water (NT 7615) and the Rivers Calder (NN 7097), Carron (NH 1053, NH 0148), Feshie (NH 8502), Nith (NX 8693) and Tweed (NT 8642).

Lathrobium dilutum Erichson **RDB3**

Not apparently recorded from northern England, this sediment species was recorded from the River South Tyne at Beltingham (NY 7864) in 1996.

Myllaena elongata (Matthews) **Notable**

There were records for southern Scotland in Eyre, Luff & Lott (1998) but records in 1997 from the Dorback Burn (NJ 0716) and River Spey (NJ 1335) appear to be the first for northern Scotland. It was also found by the River South Tyne (NY 7864) in 1996.

Neohilara subterranea (Mulsant & Rey) **RDBK**

Another species found by the River South Tyne at Beltingham (NY 7864) in 1996.

Ochtheophilus venustus (Rosenhauer) **Notable**

Also found by the River South Tyne (NY 7864) in 1996.

Ocypus nero (Faldermann) **Na**

Recorded from a number of non-riverine habitats (Hyman, 1994), it was found by the River Tyne (NY 9165) in 1995 and from the River Nith (NX 9186) in 1997. There is a record in the 1960s for 'Fair Isle' in the Scottish Insects Records Index which is not mentioned by Hyman (1994) and the Nith record could be the first for Scotland.

Ocyusa hibernica (Rye) **Notable**

Apparently a species of mountains and moor (Hyman, 1994), this species was found at low altitude by the River South Tyne (NY 7864) in 1996 and at sites near moorland by Dorback Burn (NJ 0716) and the River Dulnain (NH 8620) in 1997.

Omalium rugatum Mulsant & Rey **Notable**

Not noted from riverine habitats by Hyman (1994), it was found by the River South Tyne (NY 7864) in 1996 and by the River Nith (NS 8107) in 1997.

Oxygaster exoleta Erichson **Notable**

Found by the Rivers Tyne (NY 9165) in 1995, South Tyne (NY 7864) in 1996, and Till (NT 9930, NT 9337) and Tweed (NT 8642) in 1997, all in Northumberland.

Quedius fulvicollis (Stephens) **Nb**

Recorded from by the River Druie (NH 9110) in 1997.

Quedius longicornis Kraatz **Nb**

Not usually recorded from by rivers (Hyman, 1994), it was found by the Rivers South Tyne (NY 7864) and Pont (NZ 1271) in 1996 and the Rivers Nith (NX 8693) and Tweed (NT 3039) in 1997.

Sepedophilus constans (Fowler) **Notable**

Another species not usually found by rivers, it was found by the Rivers Tyne (NY 9165) in 1995, South Tyne (NY 7864) in 1996 and Nith (NX 9186) in 1997.

Stenus incanus Erichson **RDBK**

A river sediment species recorded from the Dorback Burn (NJ 0716), River Dulnain (NH 8620) and Northhouse Burn (NT 4406) in 1997.

Stenus oscillator Rye **Nb**

A species of wetland (Hyman, 1994), not specifically riversides, it was found by the River Feshie (NH 8502) in 1997.

Tachyusa scitula Erichson **RDBK**

Recorded from the River Till (NU 0425) in 1997 from an area of damp sand.

Thinobius praetor Smetana **Notable**

Recorded in the north of Scotland in 1997 from the Dorback Burn (NJ 0716) and Rivers Carron (NH 0148), Druie (NH 9110), Dulnain (NH 8620) and Spey (NJ 1335).

Trichophya pilicornis (Gyllenhal) **Nb**

Apparently a woodland species (Hyman, 1994), this species was found by the Ale Water (NT 4620) and Allan Water (NT 4609). There were a few trees near these sites but not woods.

Discussion

There has been increased reporting of records of beetle species thought to be important in conservation, generally based on the reviews of Hyman (1992, 1994). Most (e.g. Denton, 1998; Whitehead, 1998; Lott, 1999) reports are lists of the rarer species derived from general collecting using a variety of methods. However, the lists in Luff, Eyre & Jessop (1996) and Eyre, Luff & Lott (1998) were derived using standardised trapping techniques, especially pitfall trapping, in investigations of the beetle assemblages of various habitat types, with no emphasis on the recording of rare or notable species. Given these recent reports of rare and notable beetle species, a number of species previously thought to be of conservation importance may be too common to be of interest or use, a position alluded to by Eyre (1998) and Eyre, Luff & Lott (1998). Table 1 shows the number of records, and the number of 10 km squares, of a selection of rare and notable species recorded on riverine sediments and other habitats by MDE and MLL using pitfall traps since 1985.

Table 1: The overall number of records in all habitats (one species in one site in one year) of some nationally rare and notable beetle species found on riverine sediments, recorded by M.D. Eyre and M.L. Luff since 1985 and the number of 10 km squares covered by the records.

Species	Number of records	Number of 10km squares
Carabidae		
<i>Amara fulva</i> (Müller) Nb	62	20
<i>Bembidion litorale</i> (Olivier) Nb	31	15
<i>Bembidion schuettepeli</i> Dejean Na	54	22
<i>Dyschirius angustatus</i> (Ahrens) RDB3	4	4
<i>Pterostichus cristatus</i> (Dufour) Nb	177	35
<i>Trechus rubens</i> (Fabricius) Nb	50	33
Chrysomelidae		
<i>Mantura chrysanthemi</i> (Koch) Na	10	7
Coccinellidae		
<i>Coccinella quinquepunctata</i> Linnaeus RDB3	20	8
Curculionidae		
<i>Barynotus squamosus</i> Germar Nb	61	37
<i>Grypus equiseti</i> (Fabricius) Nb	80	37
<i>Hypera diversipunctata</i> (Schrank) RDB3	8	6

Species	Number of records	Number of 10km squares
<i>Omiomima mollina</i> (Bohemann) Na	25	9
<i>Otiorhynchus desertus</i> Rosenhauer Nb	28	14
<i>Tropiphorus obtusus</i> (Bonsdorff) Na	23	14
<i>Tropiphorus terricola</i> (Newman) Nb	38	21
Elateridae		
<i>Fleutiauxellus maritimus</i> (Curtis) Na	72	27
<i>Negastrius pulchellus</i> (Linnaeus) RBD2	6	3
<i>Negastrius sabulicola</i> (Bohemann) RDB2	4	3
Helophoridae		
<i>Helophorus arvernensis</i> Mulsant Nb	114	41
Leiodidae		
<i>Choleva glauca</i> Britten Notable	63	36
Scarabaeidae		
<i>Aegialia sabuleti</i> (Panzer) Nb	64	26
Silphidae		
<i>Aclypea opaca</i> (Linnaeus) Na	12	8
Staphylinidae		
<i>Aleochara ruficornis</i> Gravenhorst Notable	132	34
<i>Deleaster dichrous</i> (Gravenhorst) Nb	50	26
<i>Gabrius bishopi</i> Sharp Nb	33	20

Comments on some of the species in Table 1 highlight the situation concerning the status of rare and notable beetles and their appropriateness for use in conservation and environmental assessments. Although Welch (1997) thought that *Aleochara ruficornis* should remain a Notable species, it has been extremely easy to record from a number of habitat types using pitfall traps. This has been the same for *Grypus equiseti* which has been in habitats ranging from dunes to wet woodland, with the only requirement the presence of horsetails *Equisetum*. Other weevil species that have been recorded frequently include *Barynotus squamosus* and *Tropiphorus terricola* (e.g. Luff, Eyre & Jessop, 1996), with a considerable number of records in other areas of Britain such as Cumbria (Read, 1989). There are more than 100 10 km square records (post-1900) for *Amara fulva* shown in the atlas of Luff (1998) whilst there are fewer than 100 for *Pterostichus cristatus*. However, this species is spreading and has been recorded from Derbyshire to the north of Scotland and was probably an introduction in the 19th Century (Luff, 1998). As a comparison, the Nb species *Bembidion testaceum* has been recorded from only six 1900-1970 10 km squares and four post-1970 squares. It is one of many examples in Hyman (1992, 1994) where the criteria for status designation are not adhered to.

Of the Na species, *Bembidion schuettepeli* was recorded from eight 1900-1970 10 km squares and 17 post-1970 (Luff, 1998) but the records in Eyre, Luff & Lott (1998) and in

this paper indicate a species that is unexceptional within its limited range. There were 33 post-1950 10 km square records of *Fleutiauxellus maritimus* in Mendel & Clarke (1996) and there are a considerable number of more recent records. This is an archetypal example of a 'northern and western' species thought to be rare or scarce by collectors living in the south and east of Britain. There are numerous examples of other species in Hyman (1992, 1994) which appear to be rated as rare or notable because they do not occur in southern England.

Given the records of *Dyschirius angustatus* in this paper and by others (Key, 1993; Lyszkowski, Owen & Sinclair, 1994; Luff, 1998) it is likely that the present information concerning the distribution of this species is at least as good as it has ever been. This means that the information in the Biodiversity Action Plan (BAP) lists (Department of Environment, 1995) concerning decline may be inaccurate. The RDB3 designation for *D. angustatus* may be reasonable but it does not now apply to *Coccinella quinquepunctata*. There are 20 1984-1994 10 km squares in Majerus *et al.* (1997) and seven more reported in Eyre, Luff & Lott (1998) and in this paper.

The decline information for *Negastrius pulchellus* has a '?' by it in the BAP lists. There are seven post-1950 10 km square records in Mendel & Clarke (1996) and two more in this paper. It is obvious that the BAP information is guesswork and that it is highly unlikely that the RDB2 Vulnerable status is appropriate since *N. pulchellus* occurs by some of the most naturally disturbed rivers in Britain. *Negastrius sabulicola* is also RDB2 but there are 11 post-1950 10 km squares in Mendel & Clarke (1996) and *N. sabulicola* has been found in the catchments of the Nith, Tyne and Tweed recently (Luff, Eyre & Jessop, 1996; Eyre, Luff & Lott, 1998). It also does not appear to be particularly vulnerable.

It is obvious that the present situation where importance is attached to out-of-date national statuses and Biodiversity Action Plans is very unreliable. It is interesting that the site quality index of Archer (1996), based on bee and wasp records, has had to be modified by redefining species rarity (Archer, 1999), because the statuses given by Falk (1991) are now so inaccurate. A more objective assessment procedure is required. This would probably be based solely on distribution scheme data with well-defined species rarity values strictly adhered to. Species rarity values should be updated at regular intervals with incorporation of new data, especially from standardised surveys.

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Scutellar variability in the *Quedius boops* complex (Staphylinidae)

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The presence or absence of scutellar setae and punctures is an important character used in the keys to the genus *Quedius* by Joy (1932) and more specifically in the subgenus *Raphirus* (Smetana, 1962; Freude *et al.*, 1964). Among beetles identified by MLL from pitfall traps on an experimental moorland management site operated by the Macaulay Land Use Research Institute (MLURI) at Dundonnell, West Ross (NH 071915), was a small female *Quedius*, collected on 25 October 1994. The specimen had an apparently glabrous meso-scutellum, and was provisionally named as *Q. auricomus* Kiesenwetter. In the absence of reference material of this species, it was sent to JAO for confirmation, and it became evident that the specimen differed in many respects from *Q. auricomus*. It was then kindly examined by Mr Peter Hammond of the Natural History Museum, and provisionally identified as possibly *Q. spurius* Lokay, a montane species known from central Europe (Freude *et al.*, 1964).

It seemed unwise to introduce *Q. spurius* as an addition to the British fauna on the basis of a single female example, as a male would be needed to confirm the species' identity. Accordingly JAO visited the area in 1997 and carried out further pitfall trapping from 24 June to 3 October, as well as hand searching for further similar specimens, but without success.

The experimental site was pitfall trapped again by MLURI in the 1998 season, and the catches again identified by MLL. The September and October samples included large numbers of *Quedius boops* (Gravenhorst), a species that had also been recorded in the 1994 catches. Comparison of the supposed *Q. spurius* with a selection of the *Q. boops* suggested that the two could be identical, save that *Q. boops* has a pubescent meso-scutellum, in common with the rest of its subgenus *Raphirus* Stephens. The scutellum of the problem specimen appeared to be devoid of pubescence, but more detailed examination (using a magnification of at least x50, and a diffused intensity lamp so as to show up even the trace of any pubescence) revealed a single seta and a further pore, both in the posterior part of the scutellum. It was therefore concluded that the problem specimen was merely an aberrant example of *Q. boops*, with greatly reduced scutellar pubescence. The question remained: how exceptional was this condition, and how variable is scutellar pubescence in *Q. boops*? As a preliminary step to answer this, MLL examined examples of *Q. boops* from various parts of Britain, and the results are summarised below.

Specimens of *Q. boops* from Dundonnell had from zero (one female specimen) to 13 setae, all on the hinder two-thirds of the scutellum; the anterior third had at most three minute pores without setae. The mean (of 12 specimens) was 6.5 setae. We then examined further examples from our own collections, as well as material kindly loaned by Mr Peter Hodge, Dr Colin Welch and Mr Alex Williams. From 42 specimens examined, the numbers of scutellar setae ranged from zero (one specimen from Finnish Lapland) to 18 (mean 9 setae). The material included two further specimens that differed in their aedeagal shape and which appeared to be *Q. aridulus* (Jansson), following the drawings in Lohse & Lucht (1989, p.183 - a reference which is omitted by Hodge & Jones (1995), possibly because the drawings are located at the end of the Tachyporinae!). These two beetles had 25 and 30 scutellar setae respectively, extending almost to the anterior margin of the scutellum, and quite different from most of the *Q. boops* in which the anterior third of the scutellum was quite or nearly glabrous. A subsequent examination of 13 examples of *Q. aridulus* showed the numbers of scutellar setae to range from 15 to 30 (mean 22). Thus although there is some overlap between the two species, we suggest, on the basis of this admittedly small sample, that *Q. boops* may generally be distinguished from *Q. aridulus* by having fewer scutellar setae (and exceptionally none at all) that are restricted to the posterior two thirds of the scutellum, in contrast to the uniformly more densely pubescent scutellum of the otherwise very similar *Q. aridulus*. Users of the keys to *Quedius* and *Raphirus* referred to at the beginning of this note should however be careful to avoid being

misled by exceptionally glabrous examples of *Q. boops*.

Acknowledgements

We are grateful to Dr Mick Eyre and Mr David Owen for assistance with servicing pitfall traps in 1994 and 1997 respectively, and to Dr Andrew Nolan of MLURI for providing details of the experimental site and allowing us to work there. We also wish to thank Mr Peter Hammond (Natural History Museum) for initially checking the identity of our problem *Quedius*, and to Mr Peter Hodge, Dr Colin Welch and Mr Alex Willams for so readily lending specimens from their own collections.

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Aphanisticus pusillus (Olivier) (Buprestidae) new to Gloucestershire

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This nationally scarce (Hyman, 1992) beetle is not included in Atty (1983) but has been found in Gloucestershire on four occasions in the last few years. It was first discovered in the county by Chris Wiltshire at Breakheart Hill (ST 79) and was subsequently found by John Bratton at Coombe Hill (ST 79), 6.v.1996. Both of these localities lie within W. Gloucestershire (VC 34). More recently two further sites have been found by myself in E. Gloucestershire (VC 33): one swept from sedge-dominated limestone grassland in Bisley Road Cemetery, Stroud (SO 80), 26.v.1997; and taken in numbers by suction sampling at Groveridge Banks (SO 91), 9.viii.1998.

It is curious that such an evidently widespread inhabitant of species-rich limestone grassland in the Cotswolds had been missed by coleopterists for so long. The clue appears to be the difficulty in finding this small cryptic beetle in the turf. The recent ready availability of suction samplers has revolutionised recording of this (and other) species.

It is also curious that the literature generally suggests that it is a wetland beetle, associated with *Schoenus nigricans* L. (Levey, 1977) or *Juncus* spp. (Bily, 1982), whereas I know it solely from dry limestone pastures. Bily (1982) mentions the probability that it also breeds in some sedges *Carex* spp. The Cotswold grasslands contain locally abundant *Carex flacca* Schreber and *C. caryophylla* Latour and these presumably provide suitable feeding habitat. The larvae are reported to develop in mines in the aerial parts of the foodplants (Bily, 1982).

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The Cornish records for *Athous campyloides* Newman (Elateridae)

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Whitehead (1998) has made some interesting observations on the possible requirements of this nationally scarce species for particular soil structure and vegetation cover in the relatively recent softrock geology of lowland England. This note considers the habitat associations on the Palaeozoic geology of the south-west—an area of quite different character to that described for the species in lowland England and for south-east Wales (Mann, 1998).

Athous campyloides was first found in Cornwall more than 20 years ago. Bannister (1974) swept the species “near Lizard village” (SO 61/71) in July 1974; no further details of this find are available. A single female was found by myself beneath a stone lying within semi-natural cattle-grazed permanent pasture on Degibna Farm (SW 651255), close to Loe Pool, on the Trust's Penrose Estate in West Cornwall, 7.vi.1989. Unfortunately it was not noted at the time whether the beetle was associated with any burrow which might have linked it with the larval habitat, although the early date would suggest recent emergence (Allen, 1988).

The grassland here is of an unimproved circum-neutral character, with Sweet Vernal-grass *Anthoxanthum odoratum* L., Yorkshire Fog *Holcus lanatus* L., Red Fescue *Festuca rubra* L., Crested Dog's-tail *Cynosurus cristatus* L. and bent *Agrostis* sp. being the major grass species present and Common Knapweed *Centaurea nigra* L., Ribwort Plantain *Plantago lanceolata* L., Common Bird's-foot Trefoil *Lotus corniculatus* L., Sorrel *Rumex acetosa* L., and Daisy *Bellis perennis* L. the main broadleaved herbs. This is a species-poor version of the MG5c, *Cynosurus cristatus*-*Centaurea nigra* grassland, *Danthonia decumbens* sub-community, of the National Vegetation Classification (Rodwell, 1992). MG5 grassland is the characteristic unimproved grassland type of well-drained circum-neutral brown-earth soils, which was once widespread in the British lowlands, but which has undergone huge loss in extent primarily due to agricultural intensification, so that it is now scarce. The MG5c sub-community occurs where soils are rather nutrient-poor and calcium-deficient and is comparatively widespread in western Britain.

The pasture lies on Mylor Beds of the Devonian sedimentary strata, i.e. slates and siltstones. Soils are largely loamy textured, free-draining brown earths. Thus the geological situation is very different to that described by Whitehead (1998) for his Worcestershire site and the two Kent localities. Perhaps impeded drainage is less important for the beetle larvae in the wetter climate of West Cornwall than in drier areas up-country. Conditions rather more similar to those where the species has been recorded in the south-east do, however, occur in the valley bottom, just below where the specimen was found, and may of course be the larval habitat at this site. The margins of Loe Pool include a thick band of silts and clays originating from the former mineral workings upstream.

Although Mann (1998) comments that the species appears to be spreading west, there is actually no real evidence for this. It seems equally likely that people are only now detecting long-established populations.

Acknowledgements

My thanks to Howard Mendel for details of the Bannister record and to Janet Lister for information on the vegetation, soils and geology at Penrose.

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Some scarce beetles in Kent

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STAPHYLINIDAE

Bledius furcatus (Olivier)

A single male specimen of var. *skrimishirii* (Curtis) came to a mercury-vapour lamp rigged over a sheet in my garden at TQ 75Y on 1.ix.1998. Tottenham (1954) states that this species is "only recorded from a few places on the coasts of Norfolk, Suffolk, and North Wales, and the east coast of Ireland. The type form is extremely rare". Peter Hammond (in Shirt, 1987) notes that a single individual of *B. furcatus* was collected at Ringmer, E. Sussex, at M.V. light (Hodge, 1978), and speculates that it may be an immigrant, or resident at the limit of its range.

COLYDIIDAE

Cicones undata (Guérin-Méneville)

A single specimen of this species was taken under the bark of a mature dead sycamore *Acer pseudoplatanus* at the edge of a wood at Bearsted, Kent (TQ 75Y) on 4.x.1998, and identified by Eric Philp. The bark of the tree was loose enough to remove with a blade and was fairly dry beneath. A further search of the same and nearby trees was made on 5.xii.1998, and the beetle was found in some numbers in the company of *Rhinosimus planirostris* (Fabr.) (Salpingidae), *Mycetophagus piceus* (Fabr.) (Mycetophagidae) and *Dromius quadrimaculatus* (L.) (Carabidae). One specimen was found under a bark flake on a living tree, but after extensive searching no more were found on living trees. The observation of Harrison (1993) of the association with sooty bark disease, would seem to be borne out. The beetles were all found singly, but a group of six was found on another visit in ii.1999.

CHRYSOMELIDAE

Gastrophysa viridula (De Geer)

Specimens of this beetle were taken at Headcorn, Kent (TQ 84H) on *Rumex obtusifolia* (Polygonaceae) on the bank of the River Beult, on 28.iv.1992 and 27.vi.1997. Both adults and larvae were present and plentiful, doing considerable damage to the food plants. On 11.vi.1999 gravid females and larvae were seen. Mr Eric Philp collected specimens from further upstream at TQ 84L on 28.vi.1998. This beetle has not been recorded in Kent since J.J. Walker's record of 1890. (Fowler, 1908) says: "on dock leaves in marshy places, Snodland, scarce".

CURCULIONIDAE

Sitona cambricus Stephens

Several specimens of this weevil were extracted from moss collected beside a woodland road in Hempsted Forest (TQ 83D) on 1.i.1998, and further specimens were found on 14.ii.1998. Fowler (1908) says: "Marshy places, at roots of grass, in moss and by sweeping, rare. Charlton and Plumsted, Hythe." Chitty (1905) recorded two from Blean Woods in the summer of 1904. There are no other recent records for Kent. Another visit was made to the same site on 2.iii.1999 by myself and Eric Philp, and further specimens were found in the same area of moss, indicating a healthy colony overwintering.

Rhynchaenus populicola Silfverberg

A single specimen of this weevil was extracted from flood refuse found at Headcorn, Kent (TQ 84H) on 1.xi.1998, from the River Beult. Two other specimens taken by beating Crack

Willow *Salix fragilis* at the same location on 15.vii.1997, also proved to be *R. populicola*. A confirmatory visit to the site was made on 22.iii.1999; four more adults were found on the same tree, all beaten from ivy *Hedera helix* on the trunk. These were probably hibernating as no more were found on the surrounding willows, which were then leafless. The March specimens were somewhat encrusted and may arrive at the site in flood water and later breed, prompting more investigations upstream. One further specimen was found in flood refuse on 24.iv.1999, but none could be found in surrounding trees. On 11.vi.1999, on the same willow, five adults were found on the first branch that I beat onto the tray, with further branches producing as many as 20 and similar numbers on nearby trees. The beetle would appear to be well established. Parry (1981) confirmed this as a British species and Heal (1994) found the species in East Kent in 1983-93. These records indicate widening of its range across Kent, and should prompt further searching in other areas.

Acknowledgement

I would like to thank Mr Eric Philp for his help with identification, and access to references and records.

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Philhygra fallaciosa (Sharp) (Staphylinidae) new to Ireland

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Philhygra (formerly *Atheta* subg. *Philhygra*) *fallaciosa* (Sharp) is a wetland staphylinid which has been recorded widely in Britain, from south-east England (Windsor Forest - Donisthorpe, 1937) to the Outer Hebrides (Last, 1973), but not from Ireland (Anderson *et al.*, 1997).

On 8th April 1999 I took a male of this species at Corbally Fen (I.G. J 451382) in the Lecale Peninsula of Co. Down. Corbally lies in an interdrumlin hollow and comprises a mixture of open pools, *Phragmites australis* L. swamp and grazed, shallow fen dominated by the bryophyte *Calliergon cuspidatum* (Hedw.) Kinb. A fairly rich assemblage of Coleoptera is listed for the site, including the relict fenland dytiscid *Hydroporus scalesianus* Stephens. *Philhygra fallaciosa* was taken by a method I generally use in shallow wetlands, which is to tread down vegetation and sweep the shallow water over it with a fine plastic sieve. This species is one of the smaller *Philhygra* but males are recognisable by the laterally-flattened and projecting, spoon-shaped apex to the aedeagus (Benick & Lohse, 1974).

Philhygra fallaciosa has recently been reported, new to Holland, from peaty polders at Naardermeer (Vorst & Cuppen, 1996), but is mainly known from upland bogs in Europe as far south as Italy (Focarile, 1989). Benick & Lohse (1974) suggest that it is primarily a peatland species in central Europe but a more typical habitat in the British Isles would appear to be minerotrophic

fenland or marshes. At Corbally, staphylinid associates include typical fen species such as *Philonthus fumarius* (Gravenhorst), *Hygronoma dimidiata* (Gravenhorst) and *Stenus nitens* (Stephens).

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Cantharis fusca Linnaeus (Cantharidae) rediscovered in Yorkshire

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The disappearance of *Cantharis fusca* from much of its former British range appears to have received little comment in the entomological literature. Old records are thinly scattered over a wide area, including England, Scotland and Wales. In the last 20 years or so, however, I have only been aware of records from a few southern coastal areas in Kent, Sussex, Hampshire and the Isle of Wight, plus Somerset where it appears to be fairly widespread (Duff, 1993). Its continued presence in Yorkshire is therefore of considerable interest.

My attention was first drawn to the species still occurring in Yorkshire by Jim Jobe, who knew it from High Batts Reserve (SE 301764), part of Ripon Parks SSSI. It had first been found here by Mike Denton, 21.vi.1992, and subsequently by JJ, vi.1993. The beetles have been observed at umbellifer flowerheads in a damp hollow within the rough grassland of the main ride in the reserve, which is predominantly woodland and scrub; the Reserve area would have been more of a grassland site earlier this century, when the river course was different. The broad ride was cut through the developing scrub woodland in 1973 and is maintained by cutting on a four year rotational programme in October (S. Warwick, *pers. comm.*).

Bob Marsh has subsequently sent me details of all Yorkshire records for the species, and these include two further relatively recent records: Thorne Moor (SE 7116), 1978 (P. Skidmore) and Huggate (SE 8855) (P. Crowther).

Recent British localities have mostly been from rich fen or hay meadow vegetation, and it seems a reasonable assumption therefore that the decline of the species has been largely due to habitat degradation and destruction, through drainage and water abstraction works lowering water tables, and/or changing agricultural practices to increase productivity.

Acknowledgements

I would like to record my thanks to Jim Jobe, Bob Marsh and S. Warwick for passing me details of these records and sites.

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Chrysolina oricalcia (Müller, O.F., 1776) (Chrysomelidae) new to West Lothian

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A walk along a wooded track south of Upper Kinneil Farm near Bo'ness, West Lothian (NS 976793) on 21st June 1998 revealed the presence of a large black chrysomelid which I could not immediately identify. The first specimen was located on the lower part of a flowerhead of Hedge Parsley *Torilis japonica*. A second specimen was found further along the track on Hogweed *Heracleum sphondylium*. Using Joy (1932) the specimens were provisionally identified as *Chrysolina oricalcia*, subsequently confirmed by Dr M.L. Cox.

Although widespread throughout England and occurring in north Wales and southern Scotland (Hyman, 1992) this is the first record of this nationally scarce (Nb) species in West Lothian (Cox, *pers. comm.*). The specimen on Hogweed is of particular interest since this is not recorded as a food-plant in Hyman (1992), but it may simply have been resting on the plant, since no obvious feeding damage was observed.

Acknowledgement

My thanks to Dr M.L. Cox of the Dept of Entomology, Natural History Museum, London, for confirming *C. oricalcia*.

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Letters

Response to 'The changing status of British Cantharidae'

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Keith Alexander kindly acknowledges comments on an early draft of his paper assessing declines in British Cantharidae (Alexander, 1999). However, I still have serious doubts about the validity of his argument, or else I have severely misunderstood the first two columns of figures in his Table 1. I do not believe his comparison of pre- and post-1970 records at the 10 km square scale demonstrates declines. Keith claims, for example, that *Malthodes pumilus* (Brébisson) has declined dramatically. Yet his Table 1 shows there are records from more 10 km squares in the last 25 years (53) than in the period before 1970 (49). To claim such figures represent a decline, one has to assume firstly that all squares with modern records also supported this species before 1970; and secondly that there has been sufficient recording pressure since 1970 that no post-1970 occurrences of the beetle will have been overlooked in squares with only pre-1970 records. I doubt whether either assumption is valid. The first is probably a less important source of error, but it rules out the possibility of a species expanding its range. The second assumption, however, depends on cantharid recording having been so thorough since 1970 as to have reached saturation point, and this is where I believe the main fault in the analysis lies. To use the data presented to infer a decline, one has to assume that a 10 km square with only pre-1970 records indicates a local extinction. To draw conclusions from such negative records, one has to have either surveyed the seemingly empty square very

diligently or to know that no suitable habitat survives there. Such thoroughness can usually only be devoted to rare species whose habitat requirements are both well-known to entomologists and seldom met with.

Reference

ALEXANDER, K.N.A. 1999. The changing status of the British Cantharidae. *Coleopterist* 8: 17-19.

Reply to John Bratton's letter

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Twinn & Harding (1999), in the latest BRC Atlas (p. 25), state that "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".

In my article I go further and suggest that the proportion of circles which are open may suggest the extent to which a species has declined within its former range, especially when compared with other species which show a different proportion. This is the basis upon which many species have currently been assessed for inclusion in the Government's Biodiversity Action Plan.

The standard dot maps provide three main types of information: 1. the extent of country over which dots are scattered, which can be interpreted as showing the extent and pattern of the range of the species; 2. dot density, which can be interpreted as giving an indication of the status of the species; 3. age structure of the records on which the dots are based, which can be interpreted as giving an indication of changing status.

All of these can be very useful in informing knowledge of the ecology of the species concerned and the implications to their conservation.

Dot density is actually a better guide to national status than the actual number of dots - the current criterion. A good case is *Drilus flavescens* which is still widespread on semi-natural grasslands on the chalk and other base-rich grasslands of southeast England and not a key conservation species, but—because of its restricted range in GB—it is known from relatively few 10 km squares and so has 'Nationally Scarce' status. Dot density gives a more reliable indication of its conservation status. Other examples include *Scydmaenus rufus* and *Tomoxia bucephala*.

Changing status is very much a current big issue in nature conservation and is the main driving force in the UK Biodiversity Species Action Plans, cf. the bumblebee maps in Volume IV (Anon., 1999). My article—which has so incurred JB's wrath—was merely applying the UK Biodiversity approach to a different dataset. I purposely took the BAP approach too far as my intention was to stimulate some discussion on the value of dot maps amongst coleopterists. John's is the only written comment so far, but two other people have commented verbally—one comment was "interesting!" and the other also appreciated my intent!

How do we interpret the data provided by dot maps? JB implies that it is spurious to do so. But is that true? If so, why does the Joint Nature Conservation Committee fund the Biological Records Centre to produce them?! My paper was a first attempt to explore what might be deduced and draws heavily on the UK Biodiversity approach.

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Subscribers' Notices

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.

Coleopterist wanted: Advance notice is offered that a 3-year contract post, Action for Invertebrates, is to be advertised fairly early this year by a partnership of Biodiversity Challenge / English Nature / JCCBI. Citing a draft, the initial base will be RSPB, Sandy, later probably transferring to a new Butterfly Conservation office in Dorset. This entails undertaking the Lead Partner Role for 9 Biodiversity Action Plan species, including 2 carabids, 2 click beetles and three aquatic beetles, involving steering and co-ordination on projects. The profile of invertebrate conservation is to be raised, leading hopefully to longer-term initiatives. Contact: Dr David Sheppard (EN Peterborough), Dr Jane Sears (RSPB) or, more informally, Alan Stubbs (Tel.: 01733 346648). *Alan Stubbs.*

Beetles of the British Isles newsgroup: A newsgroup has now been set up to provide a forum for discussion of any subject to do with Coleoptera of the British Isles. If you wish to join, send a blank e-mail to: beetles-britishisles-subscribe@egroups.com. *Andrew Duff.*

Chrysolina graminis (tansy beetle) records wanted: I would like to receive both old and recent records to assess this species' current status and the extent of range contraction. It would also be useful to know whether *C. menthastris* has been reported from the same area as the *C. graminis* records submitted, as these two species have been confused in the past. *Duncan Sivell*, Dept of Biology, University of York, PO Box 373, York YO1 5YW. E-mail: dms103@york.ac.uk.

Surrey Ladybird Atlas: I am currently writing the first beetle volume in this successful series on the fauna of Surrey. It will cover all Coccinellidae recorded within VC 17 during 1980-99. Further records would be welcomed, particularly of the smaller and/or rarer species, and especially with field notes. Please send records before May 2000 to: *Roger Hawkins*, 30D Meadowcroft Close, Horley, Surrey RH6 9EL. Tel.: 01293 783397.

Records of Hylotrupes bajulus wanted: I am looking for indoors and out-of-doors records of the house longhorn beetle (*H. bajulus* L.) in the UK. I would be grateful for records of this species from 1900 onwards. Please send records to: *P. Oevering*, Forest Products Research Centre, BCUC, High Wycombe, HP11 2JZ. E-mail: eve.oevering@bcuc.ac.uk.

Lily Beetle records wanted: For a forthcoming review of its status and distribution, I would like to receive all records of *Lilioceris lili*. *Mike Cox*, CABI Bioscience, c/o Dept of Entomology, The Natural History Museum, London SW7 5BD.

Malachius aeneus records wanted: As part of English Nature's Species Recovery Programme, I am researching the distribution and ecology of this formerly widespread, but now apparently very scarce species. Any information, modern or historical, will be gratefully received and all records will be acknowledged in official reports. *Peter Hodge*, 8 Harvard Road, Ringmer, Lewes, East Sussex BN8 5HJ. Tel.: 01273 812047.

New Scirtidae recording scheme: A recording scheme for British and Irish Scirtidae is to be run in conjunction with the current aquatic Coleoptera scheme. Please send records and problem specimens to me, or add records to water beetle record cards sent to Prof. Garth Foster, 3 Eglinton Terrace, Ayr KA7 1JJ. *Dr Jonty Denton*, 2 Sandown Close, Alton, Hampshire GU34 2TG.

Woodland beetle lists wanted: In *The Coleopterist* 6: 61-66 a new system for assessing the importance of wooded habitats for conservation was proposed. Since then attempts have been made to develop the necessary evaluation index and significant progress has been made. The system now needs testing against a wide range of woodlands and parklands and I would be grateful if any coleopterists with beetle lists (either from single visits or collations of records) from such habitats would kindly send me copies. *Adrian Fowles* Countryside Council for Wales, Plas Penrhos, Bangor, Gwynedd LL57 2LQ.

Literature notices

- ALEXANDER, K.N.A. 1999. *Procas granulicollis* Walton (Col.: Curculionidae) discovered in Surrey. *Br. J. Ent. Nat. Hist.* **12**: 220.
- 2000. Death-watch beetles *Xestobium rufovillosum* (Degeer) (Col.: Anobiidae) in the wild. *Entomologist's Rec. J. Var.* **112**: 89.
- & FOSTER, A.P. 1999. Scarce wood-decay beetles in a river floodplain landscape in the Upper Thames Valley. *Br. J. Ent. Nat. Hist.* **12**: 213-214.
- ALLEN, A.A. 1999. *Carabus monilis* F. (Col., Carabidae) in Caernarvonshire. *Entomologist's Mon. Mag.* **135**: 204.
- BLAKE, A. 1998. Rare flea beetle causes wheat growers concern. *Farmers Weekly*, 23rd October, p. 56. [*Psylliodes luteola*].
- COOTER, J. 1999. *Anoplophora chinensis* (Forster, 1771) (Col., Cerambycidae) in Herefordshire. *Entomologist's Mon. Mag.* **135**: 196.
- DAGLEY, J. 1999. Rare jewels discovered in Epping Forest: *Agrilus sulcicollis* - a new jewel beetle for Essex. *Essex Nat.* **16**(n.s.): 30.
- DE ROUGEMONT, G. 1999. Swarming of *Choleva* (Col., Catopidae) in Sussex. *Entomologist's Mon. Mag.* **135**: 248.
- FINCH, S. & ELLIOTT, M. 1999. Predation of cabbage root fly eggs by carabid ground beetles - fact or fantasy? *Antenna* **23**: 228-232.
- HACKETT, D. 1995. The jewel beetle *Agrilus pannonicus* in the London area. *London Nat.* **74**: 161-164.
- HAMMOND, P.M. 1999. The status in Essex of nationally scarce and threatened species of Coleoptera. *Essex Nat.* **16**(n.s.): 145-154.
- LABUSCHAGNE, L. 1999. Black vine weevil - The Millennium bug? *Antenna* **23**: 213-218.
- LEVEY, B. 1999. *Mordellistena secreta* Horak (Coleoptera: Mordellidae), a species new to Britain. *Br. J. Ent. Nat. Hist.* **12**: 227-229. [From Surrey and London; illus.].
- MURRAY, P.J. & CLEMENTS, R.O. 1999. *Sitona* spp. (Coleoptera; Curculionidae) in grassland in England and the impact of their root herbivory on white clover. *Antenna* **23**: 221-227.
- NASH, D.R. 2000. *Corticaria fagi* (Wollaston) (Col.: Latridiidae) in Suffolk and Sussex. *Entomologist's Rec. & J. Var.* **112**: 13-14.
- OWEN, J.A. 1999. The identity of *Myrmecopra brevipes* Butler (Col.: Staphylinidae). *Entomologist's Rec. & J. Var.* **111**: 275-276.
- SALMON, M.A. 1999. *Ptomaphagus varicornis* (Rosenhauer) (Col.: Leiodidae) in North Devon. *Br. J. Ent. Nat. Hist.* **12**: 234-235.
- SMITH, K.G.V. 1999. *Chrysolina oricalcia* Müller (Col., Chrysomelidae) in Barnet, Hertfordshire. *Entomologist's Mon. Mag.* **135**: 250.
- WHITEHEAD, P.F. 1999. Recent records of *Meloe rugosus* Marsham (Col., Meloidae), including second Somerset and third Gloucestershire specimens. *Entomologist's Mon. Mag.* **135**: 192.
- 1999. The Worcestershire population of *Gastrallus immarginatus* (Müller, 1821) (Col., Anobiidae). *Entomologist's Mon. Mag.* **135**: 193-196.
- WISTOW, S. & O'CONNOR, J.P. 1999. A recent Irish record of *Apion (Diplapion) confluens* Kirby (Col., Brentidae). *Entomologist's Mon. Mag.* **135**: 196.



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Contact: Bob George