

The Coleopterist

Volume 5 Part 2 ♦ August 1996

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Some varieties of *Strangalia maculata* in the British Isles
Notable arboreal Coleoptera of Bredon Hill, Worcestershire
Conservation News ♦ Notes ♦ Review

The Coleopterist

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Material should be typewritten double-spaced with 3 cm margins, on one side only of white A4 or letter sized paper, one copy only, or submitted on DOS-formatted computer diskette in ASCII format and accompanied by a hard copy. Footnotes should be avoided and pages should be numbered. Only names of species and genera should be underlined. Authority names should be given in full. Illustrations should be in black ink, boldly drawn and scaled to allow for a 50% reduction. They must be originals and not photocopies. The ideal position of figures should be indicated in the text. Every effort will be made to care for original artwork but the Editor cannot be held responsible for their loss or damage. For formatting of references, refer to a recent article in *The Coleopterist*.

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Editorial

One or two subscribers have indicated that they would like an occasional piece of editorial comment in *The Coleopterist*. Not that anyone has said as much to me directly, you understand, but I hear rumours. Well, since it was rather difficult to get enough material for this issue, I am more than happy to oblige for once.

After a few minor production difficulties (mainly concerned with the quality of the cover) I believe that the journal has now settled upon a consistently high level of interest and pleasing look-and-feel; certainly a number of readers' comments have been favourable. The original intention of including original line drawings on the cover has been effectively superseded by the more practical one of having photographs instead. If you have a photograph (or drawing) that you think might reproduce rather well then please send it in. All offers will be very welcome.

This issue contains two moderately lengthy articles, one by Raymond Kaufmann, on variation in the cerambycid *Strangalia maculata* (Poda), being of interest to anyone that has collected this species and is aware of the wide degree of variation that it exhibits. Armed with this paper, British coleopterists should now be able to name many of their varieties and perhaps begin to elucidate the causes of variation in this species. Paul Whitehead's paper on the arboreal Coleoptera of Bredon Hill shows just how nationally important this site is for dead-wood beetles.

There are in addition a number of short notes; unfortunately not as many as I would have liked to have included. It is true to say that the job of Editor would be unreservedly enjoyable were it not for the fact that it entails a constant fight to obtain enough material. Much as I would like to, my job as product manager of a software company means I can afford very little time to chase for copy. After all, with well over 200 subscribers, most of whom must be turning up nationally notable or new vice-county records of beetles from time to time, you would think that material is not hard to come by. But you would be wrong. If you do nothing else this autumn, please send me a short note! Unless more material is forthcoming I may have to consider reducing the number of issues per year from three to two, which would indeed be a pity.

This autumn the Editorial Panel will be meeting to review progress and to plan the future course of the journal. This is your chance to make your views known so, please, write and let me know what you would like to see in *The Coleopterist*. Why not include that short note, while you're about it?

Andrew Duff

***Halacritus punctum* (Aubé) (Histeridae) rediscovered in Somerset**

J. B. Jobe

13 Willow Walk, Ripon, North Yorkshire HG4 2LS

During a visit to Brean, North Somerset (VC 6; ST 2956) on the evening of April 13th, 1996, I collected a plastic carton full of seaweed debris for inspection at home. This was later found to contain a single specimen of *Halacritus punctum*, which appears to be the first found in Somerset since it was taken by G.R. Crotch at Weston-super-Mare, probably in the early 1860s (Fowler, 1889; Duff, 1993). The specimen has now been donated to the collection of A.G. Duff.

The species is generally regarded as being rare and is listed as RDBK: "Insufficiently Known" by Hyman (1992). This is not surprising, considering its diminutive size (< 1.5 mm), resemblance to the grains of sand in which it lives and the general alarm reaction of histerids of simulating death and closely retracting the antennae and legs beneath the body (Richards & Davies, 1977). Hyman (*loc. cit.*) gives its British distribution as "...East Cornwall, North Somerset, Dorset, Isle of Wight and South Hampshire before 1970 and North Devon from 1970 onwards". A published record for Leicestershire is also mentioned. Its Central European distribution is "W. und S.E. Einmal in Holland gefunden. ?Nordseeküste." (Witzgall, 1971).

Other beetles present in the sample were: Staphylinidae: *Anotylus maritimus* Thomson, C.G. (2 exx.); *Cafius xantholoma* (Gravenhorst) (5 exx.); *Omalium laeviusculum* Gyllenhal (3 exx.); *Emplenota obscurella* Gravenhorst (1 ex.); Hydrophilidae: *Cercyon littoralis* (Gyllenhal) (20 exx.); *C. depressus* Stephens (1 ex.). There were also many individuals of the collembolan *Anurida maritimum* in the carton, which could form the prey of *H. punctum*.

Acknowledgement

I would like to thank Andrew Duff for his kind comments and for writing *Beetles of Somerset* which partly inspired my visit.

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***Trichiusa immigrata* Lohse (Staphylinidae) in Dorset**

A. J. W. Allen

56 Windsor Way, Alderholt, Fordingbridge, Hampshire SP6 3BN

I sieved a single example of this species from a well-rotted manure heap in a field near Holt, Dorset (SU 00) on 10th March 1996. Lott (1995) reported a considerable northwards progress since the first records in Kent in 1992 and this is evidence of a similar westwards movement.

Acknowledgement

I thank Prof. J.A. Owen for identifying the specimen.

Reference

- LOTT, D. 1995. *Trichiusa immigrata* Lohse (Staphylinidae) in Leicestershire. *Coleopterist* 4: 14.

Some varieties of *Strangalia maculata* (Poda) (Cerambycidae) occurring in the British Isles

Raymond R. Uthhoff-Kaufmann

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Introduction

Strangalia maculata (Poda) is one of our most attractive medium-sized longhorns (Pl. 1). A floricole, *S. maculata* is all but ubiquitous in England, well-known from Wales, recorded rather more sparingly from Ireland, but becoming increasingly rarer in the northern counties of England and in Scotland. Although so widespread, it is somewhat localized in distribution, but where it does occur it is sometimes abundant.

The principal food of the larva of *S. maculata* is birch *Betula*, but it is also found in ash *Fraxinus*, aspen *Populus*, beech *Fagus*, hazel *Corylus*, hornbeam *Carpinus*, willow *Salix*, Spanish chestnut *Castanea* and willow *Salix*; nor is it averse to pine *Pinus*, spruce *Picea* and silver fir *Abies*.



Pl. 1: *Strangalia maculata* (Poda) (Cerambycidae), var. R.S. Key

The life-cycle may last from two to three years. The larva has been described by von Demelt (1966) and Klausnitzer & Sander (1981), but no-one [according to the former and Duffy (1953)] has taken the trouble to describe the pupa - thought to be similar to that of *S. quadrfasciata* (Linnaeus) according to Duffy (*op. cit.*) - or to list the Hymenoptera which doubtless parasitize the larva. Pupation occurs in spring or early summer and the imagines are about from May until September. The adult beetle is a very wary and agile species which takes swiftly to wing or drops off flowerheads into the undergrowth if disturbed. It has been recorded from a wide range of flowering plants and shrubs, but a great favourite is hogweed *Heracleum* on which the sexes often congregate, flying in to meet and mate.

Variation

S. maculata is particularly attractive because of its bright yellow and black coloration, and its diverse - almost infinite - elytral patterns of maculations and fascial bands. British coleopterists may regard the many varieties described as being of no taxonomic value, but in this respect they would be at odds with their continental colleagues.

A perusal of relevant publications shows references to the following number of varieties: Stephens (1829) 2; Waterhouse (1858) 1; Crotch (1863) 1; Pic (1891) 5; Pic (1910) 12; Aurivillius (1912) 12; Winkler (1929) 16; Plavilstshikov (1936) 32; Uthhoff-Kaufmann (1946) 20; Pic (1946) 31; Uthhoff-Kaufmann (1947) 22; and Heyrovsky (1955) 55. In the latest published review of variation in this species, Villiers (1978) described no fewer than 78 forms and at the latest count 80 varieties have been named.

So extensive is variation in this species that if coleopterists were to examine their series of *S. maculata* they would find a number differing from the *forma typica* and quite possibly a variety as yet undescribed. It is perhaps not surprising to find textbook illustrations that show not the type form (although labelled as such) but one of its many varieties.

It is quite clear that the most recent British reviews of *S. maculata* variation (Uthhoff-Kaufmann, 1946, 1947) are now outdated. This paper provides a new key and distributional data for some of the varieties so far known from the British Isles. The present review is based upon specimens in the main Uthhoff-Kaufmann collection of Cerambycidae (now kept in Manchester Museum), the Hardy and Sidebotham collections examined in the mid-1940s (also at Manchester), the W.E. Sharp collection (in Warrington Museum), material sent to the author for identification over the past few years, and a secondary collection held in the writer's possession. Twenty-two varieties are figured and described here.

Key to varieties

It is virtually impossible to produce a single dichotomous key that covers all of the variations in this species, so numerous are the permutations of maculations and fasciae.

Milliat's (1966) system of 'groups' and 'sub-groups' has been used instead. Reference should be made to Figs. 1-23, which are, if anything, more explanatory than the text!

The dark maculations in this species form four more or less transverse fasciae: (i) a first fascia comprising three distinct subhumeral spots in the *forma typica* but varying from completely absent to a continuous transverse band; (ii) a second fascia, typically forming a hump-shaped marginal blotch about half-way along the elytron; (iii) a third fascia, typically a discrete transverse subapical band but varying to be confluent with either the first fascia along the suture or the second fascia along the margin; (iv) a fourth fascia, typically a discrete apical blotch but varying to be merged with the third fascia.

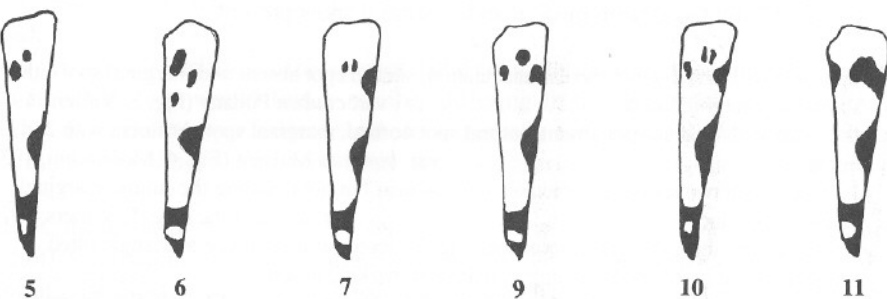
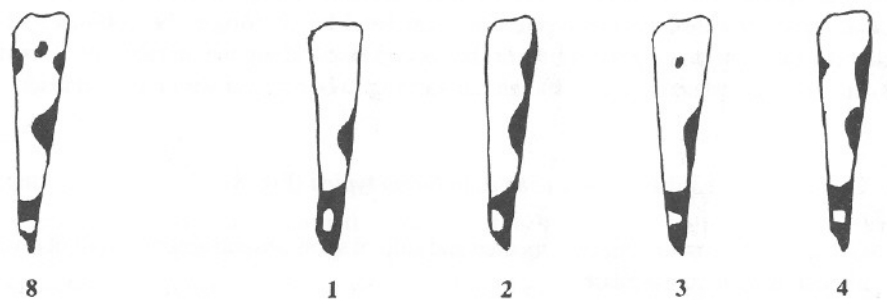
Group A: 2nd, 3rd and 4th fasciae as in *forma typica* (Fig. 8)

Group A1: 1st fascia with both median and sutural spots absent; anterior third of elytra almost or quite immaculate

- 1st fascia absent, anterior third of elytra immaculate or with a greatly reduced marginal spot var. *impunctata* Mulsant (Fig. 1; Villiers, 1978)
- 1st fascia marginal spot present and similar to type form var. *externepunctata* Mulsant (Fig. 2; Martyn, 1792)

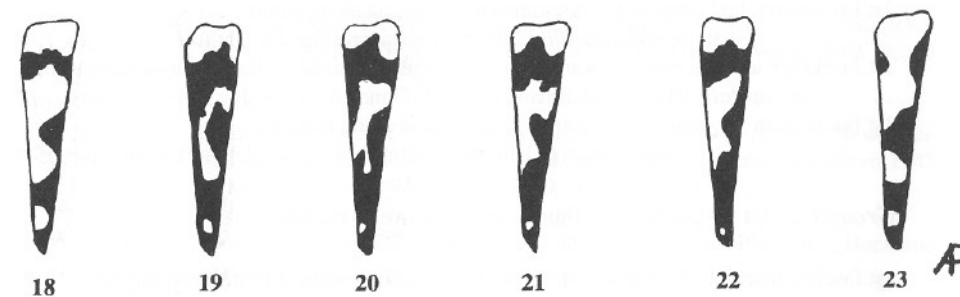
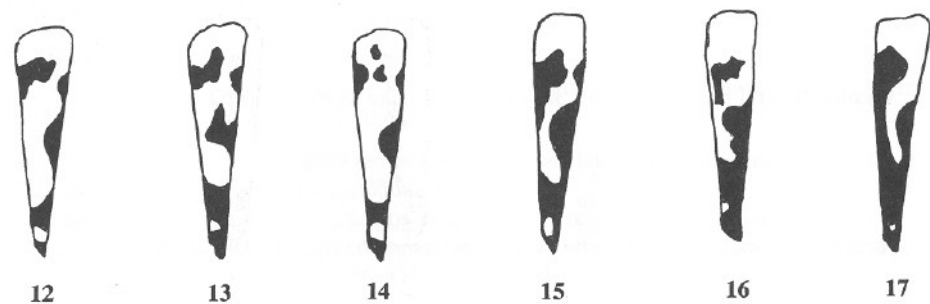
Group A2: 1st fascia with median and/or sutural spots present

- 1st fascia with one distinct median maculation, sutural spot absent and marginal spot either absent or greatly reduced var. *caubeti* Podany (Fig. 3; Villiers, 1978)
- 1st fascia with median spot absent, sutural spot normal, marginal spot confluent with 2nd fascia var. *binotata* Mulsant (Fig. 4; Moscardini, 1954)
- 1st fascia with two spots - one median and one near but not touching the suture; marginal maculation reduced var. *pacifica* Pic (Fig. 5; Villiers, 1978)
- 1st fascia with three elongated spots forming the apices of an equilateral triangle tilted towards the suture but not touching it; marginal marking absent var. *gibberdi* Uthhoff-Kaufmann (Fig. 6; Uthhoff-Kaufmann, 1995)
- 1st fascia with median maculation split into two thin spots; no sutural spot; marginal maculation normal var. *discobiinterrupta* Pic (= *mediopunctata* Uthhoff-Kaufmann) (Fig. 7; Uthhoff-Kaufmann, 1946; Villiers, 1978)
- 1st fascia with three spots - one median, one sutural and touching the suture, one marginal *maculata* (Poda) *forma typica* (Fig. 8; Villiers, 1978)
- 1st fascia as in *forma typica* but with the sutural spot not touching the suture var. *separata* Uthhoff-Kaufmann (Fig. 9; Uthhoff-Kaufmann, 1946; Auber, 1976)
- 1st fascia as in var. *separata* but with the median spot split into two segments var. *mimoseparata* Pic (Fig. 10; Villiers, 1978)
- 1st fascia with median and marginal maculations fused var. *subsnuata* Depoli (Fig. 11; Moscardini, 1954)



Figs. 1-23: Varieties of *Strangalia maculata* (Poda) (Cerambycidae), right elytron shown.

1: *impunctata* Mulsant; 2: *externepunctata* Mulsant; 3: *caubeti* Podany; 4: *binotata* Mulsant; 5: *pacifica* Pic; 6: *gibberdi* U.-Kaufmann; 7: *discobiinterrupta* Pic; 8: *forma typica*; 9: *separata* U.-Kaufmann; 10: *mimoseparata* Pic; 11: *subsiniuata* Depoli; 12: *seminotata* U.-Kaufmann; 13: *kaufmanni* Pic; 14: *pisarskii* Podany; 15: *disconotata* Pic; 16: *stelligera* U.-Kaufmann; 17: *sylvestris* U.-Kaufmann; 18: *undulata* Mulsant; 19: *suturalis* U.-Kaufmann; 20: *dentatosuturalis* U.-Kaufmann; 21: *apicalis* U.-Kaufmann; 22: *conjuncta* U.-Kaufmann; 23: *subbinotata* Podany.



- 1st fascia with median and sutural maculations fused
..... var. *seminotata* Uthhoff-Kaufmann (Fig. 12; Rye & Fowler, 1890)
- 1st fascia with sutural, median and marginal spots fused to form a continuous, undulating fascia from suture to margin
..... var. *undulata* Mulsant (Fig. 18; Spry & Shuckard, 1840; Wood, 1883; Dibb, 1948)
- 1st fascia as in *forma typica* but with two perpendicular median spots
..... var. *pisarskii* Podany (Fig. 14; Villiers, 1978)

Group B: 2nd fascia atypical, 3rd and 4th fasciae as in *forma typica* (Fig. 8)

- 1st fascia as in *forma typica*, 2nd fascia confluent across suture
..... var. *subbinotata* Podany (Fig. 23; Villiers, 1978)
- 1st fascia with median and sutural maculations fused and 2nd fascia more extensive than in *forma typica* and angled anteriorly... var. *kaufmanni* Pic (Fig. 13; Uthhoff-Kaufmann, 1947)

Group C: 2nd, 3rd and 4th fasciae confluent at elytral margin

Group C1: 1st fascia continuous from suture to margin

- 1st fascia joined to 3rd fascia along suture
..... var. *suturalis* Uthhoff-Kaufmann (Fig. 19; Uthhoff-Kaufmann, 1946)
- 1st fascia stretched towards but not joined to 3rd fascia along suture
..... var. *dentatosuturalis* Uthhoff-Kaufmann (Fig. 20; Uthhoff-Kaufmann, 1946)
- 1st fascia not at all stretched towards 3rd fascia and not joined to 2nd fascia along margin
..... var. *apicalis* Uthhoff-Kaufmann (Fig. 21; Donovan, 1794; Joy, 1932; Chinery, 1986)
- 1st fascia as in var. *apicalis* but joined to 2nd fascia along margin
..... var. *conjuncta* Uthhoff-Kaufmann (Fig. 22; Uthhoff-Kaufmann, 1946)

Group C2: 1st fascia not continuous from suture to margin

- 1st fascia consisting of a transverse bar with the sutural end bent posteriorly and not touching the suture... var. *stelligera* Uthhoff-Kaufmann (Fig. 16; Uthhoff-Kaufmann, 1988)
- 1st fascia with median and sutural maculations fused but distinct from the marginal spot
..... var. *disconotata* Pic (= *kriecheldorffi* Wagner) (Fig. 15; Stelfox, 1937)
- 1st fascia with marginal spot absent but with median and sutural maculations fused and joined to 3rd fascia at suture
..... var. *sylvestris* Uthhoff-Kaufmann (Fig. 17; Uthhoff-Kaufmann, 1947)

Distribution of varieties in the British Isles

Some localities apparently produce more varieties than the type form, a fact that emerges notably, for example, when considering the hundreds of specimens collected by the late E.C. Riggall in the north Lincolnshire woods. It has been said that the melanic variations are montane in distribution and hence more common in our uplands, but there is little real evidence to support this suggestion and nor are the albinotic varieties by any means confined to lower levels. The precise causes of variation in this species would make a worthwhile research topic in its own right.

The following data are taken from specimens in my collection, except where stated. Finders initials are given in parentheses.

Key: AAA - A.A. Allen; AB - A. Brackenbury; AHN - A.H. Newton; BLS - B.L. Sage; CWH - C.W. Henderson; DT - D. Tozer; ECR - E. C. Riggall; EFG - E.F. Gilmour; EK - Mrs E.K. Uthhoff-Kaufmann; EOA - E.O. Armytage; EWE - E.W. Eustace; GHA - G.H. Ashe; HGS - H.G. Stokes; JC - J. Cowley; KCL - K.C. Lewis; RAJ - R.A. Jones; RK - R.R. Uthhoff-Kaufmann; RSF - R.S. Ferry; RWL - R.W. Lloyd; SEWC - S.E.W. Carlier; SK - S. Kemp; SOT - S.O. Taylor; WF - W. Fassnidge.

apicalis Uthhoff-Kaufmann

W. Kent: Joydens Wood 8.vii.1985 (KCL; in coll. KCL); Chalk Wood 4.viii.1991 (KCL; in coll. KCL). **Surrey:** Milford 6.vii.1989 (RK). **N. Lincs.:** Muckton 5.vii.1944 & 28.vi.1947 (ECR); Legbourne Wood 5.viii.1946 (ECR); Skellingthorpe Wood 23.vii.1948 (ECR).

binotata Mulsant

Northants.: Wakerley 16.vi.1945 (SOT). **N. Lincs.:** Welton Wood 13.vii.1948 (ECR).

caubeti Podany

W. Kent: Joydens Wood 10.viii.1969 (KCL; in coll. KCL). **Surrey:** Milford 16.vi.1989 (RK). **N. Essex:** Old Harlow 26.vi.1993 & 29.vi.1994 (EK). **S.E. Yorks.:** Wharmliffe Wood 1977-1979 (AB; in coll. AB).

conjuncta Uthhoff-Kaufmann

S. Devon: Shute Park 8.vii.1945 (GHA). **Surrey:** Gomshall 5.vii.1946 (EWE); Newdigate 17.vii.1947 (EWE). **Herts.:** Aldwickbury 8.vii.1941 (RK). **War.:** Bubbenhall 20.vii.1947 (SEWC). **S.E. Yorks.:** Wharmliffe Wood 1977-1979 (AB; in coll. AB).

dentatosuturalis Uthhoff-Kaufmann

W. Corn.: Millhook 27.vi.1918 (EOA). **S. Devon:** Tamar Valley 9.vii.1947 (JC); Buckland Monachorum 13.vii.1947 (JC). **Worcs.:** Wyre Forest: 13.vi.1948 (SEWC).

discobiinterrupta Pic

Surrey: Milford 19.vi.1989 (RK). **W. Inv.:** Ardnamurchan 19.viii.1986 (J.M. Christie; in coll. Christie).

disconotata Pic

W. Corn.: Millhook 3.vii.1918 (EOA). **S. Devon:** Caton 18.vi.1944 (SK); Ermington 24.vi & 16.vii.1944, 16.vii.1946 (SK); Holne 4 & 16.vii.1945, vi.1946 (AHN); Galampton 4.vii.1954 (L.H. Woollatt). **S. Wilts.:** Dinton 6.vii.1946 (HGS); East Grimstead 22.vi.1947 (HGS); Whiteparish 28.vi.1947 (HGS). **Dorset:** Handley 12.vii.1947 (HGS). **Surrey:** Milford 9.vii.1988, 16.vi.1989, 17 & 22.vi.1990 (RK). **N. Essex:** nr Sheering 26.vi.1995 (EK). **Herts.:** Boxmoor vii.1906 (ex coll. EFG). **Berks.:** Windsor Forest vi.1942 (AAA). **Heref.:** Werndee 26.vi.1944 (RWL). **War.:** Wyre Forest 22.vi & 28.vii.1947 (SEWC); Bubbenhall 20.vii.1947 (SEWC). **N. Lincs.:** Linwood vi.1945 & vii.1945 (ECR); Legsby 26.vi.1945 & 13.vi.1946 (ECR); Haugham 2.vii.1946 (ECR); Burwell Wood 2.vii.1946 (ECR); Hainton 18.vi.1945 (ECR); Legbourne Wood 5.viii.1946 (ECR); Kenwick Wood 2.vii.1946 (ECR); Muckton

28.vi.1947 (ECR); Skellingthorpe 19.vii.1947 & 28.vii.1948 (ECR); Skellingthorpe Wood 4.vii.1947 (ECR); Welton Wood 18.vii.1948 (ECR). **Leics.:** Barkby Holt 18.vii.1937 (CWH). **S.E. Yorks.:** Wharnccliffe Wood 1977-1979 (AB; in coll. AB). **N.E. Yorks.:** Helmsley 24.vii.1936 (M.D. Barnes). **S.W. Yorks.:** Storthes Hall 18.viii.1937 (EFG); Milnsbridge 12.vii.1946 (EFG). **Mid-W. Yorks.:** Askern Bog 12.vii.1936 (???)

externepunctata Mulsant

W. Corn.: Millhook 8.vii.1918 (EOA). **S. Devon:** Holne vi.1945 & 4.vii.1945 (AHN); Buckland Monachorum 18.vii.1947 (JC). **Surrey:** Ockham 28.vi.1944 (SK); Gomishall 6.vii.1946 (EWE). **N. Lincs.:** Hainton 13.vi.1945 (ECR); Langworth Wood 27.vi.1946 (ECR); Haugham 2.vii.1946 (ECR); Burwell Wood 2.vii.1946 (ECR); Newball Wood 13.vii.1946 (ECR); Legbourne Wood 3.viii.1946 (ECR); Legsby 26.vi.1948 (ECR).

gibberdi Uthhoff-Kaufmann

N. Essex: nr Sheering 26.vi.1995 (EK).

impunctata Mulsant

N. Essex: nr Sheering 26.vi.1995 (EK).

kaufmanni Pic

N. Lincs.: Legbourne Wood 6.viii.1946 (ECR).

mimoseparata Pic

S. Devon: Oakhill 9.vi.1946 (JC); Maiden Down 28.vii.1947 (JC). **Surrey:** Milford 6.vii.1988, 16.vi.1989 & 22.vi.1990 (RK). **N. Essex:** nr Sheering 25-26.vi.1995 (EK, RK). **Herts.:** Boxmoor vii.1946 (EFG). **Worcs.:** Wyre Forest 1.viii.1947 (SEWC). **War.:** Bubbenhall 20.vii.1947 (SEWC). **Merion.:** Aberdovey 6.viii.1947 (EFG). **N. Lincs.:** Legbourne Wood 5.viii.1946 (ECR); Welton Wood 13 & 18.vii.1948 (ECR). **S.E. Yorks.:** Wharnccliffe Wood 1977-1979 (AB; in coll. AB).

pacifica Pic

S. Hants.: New Forest 20.vii.1946 (ex Deacon; in coll. KCL). **E. Sussex:** Abbot's Wood 10.vii.1971 (RAJ; in coll. RAJ). **W. Kent:** Chalk Wood 17.vii.1990 (KCL; in coll. KCL).

pisarskii Podany

W. Sussex: Lower Beeding vi.1931 (HD; ex coll. AAA; in coll. KCL).

seminotata Uthhoff-Kaufmann

Surrey: Milford 19.vi.1989 (RK). **Berks.:** Windsor Forest vi.1942 (AAA). **Carm.:** Laugharne 5.viii.1954 (BLS). **S.E. Yorks.:** Wharnccliffe Wood 1977-1979 (AB; in coll. AB).

separata Uthhoff-Kaufmann

E. Corn.: Bodmin 1941 (Miss M.G. Hocken). **S. Devon:** Combe Raleigh 7.vii.1942 (RK); Caton 18.vi.1944 (SK); Ermington 24.vi. & 16.vii.1944 (SK); Holne 14.vii.1947 (HGS). **S. Wilts.:** Redlynch 28.vi.1947 (AHN). **S. Hants.:** Southampton vi.1926 (WF); Ringwood 12.vii.1928 (A.J. Ponchaud); New Forest 16.vii.1929 (F.T. Grant); Botley Wood 3.vii.1965 (D. Appleton). **Surrey:** Milford 6 & 9.vii.1988, 16 & 19.vi.1989, 7.vii.1990 (RK) & 24.vii.1994 (EK). **N. Essex:** Old Harlow 17.vii.1990 & 2.vii.1994 (RK); nr Sheering 26.vi.1995 (RK). **Herts.:** East Hyde 30.vi.1940 (RK); Kinsbourne Green 10.vii.1940 (RK); Harpenden 11 & 13.vii.1940 (RK); Knebworth Great Wood viii.1946 (RSF). **Northants.:** Easton Hornstock 11.vii.1944 (SOT); Wakerley 16.vi.1945 (SOT). **Heref.:** Treago 1941 (RWL). **Worcs.:** Wyre Forest 28.vii & 1.viii.1947 (SEWC). **War.:** Knowle vi.1902 (H.W. Ellis). **Carm.:** Laugharne 5.viii.1954 (BLS). **N. Lincs.:** Langworth Wood 26-27.vi.1946 (ECR); Newball Wood 13.vii.1946 (ECR); Legsby 19.vi.1946, 21.vi.1947 & 26.vi.1948 (ECR); Skellingthorpe 23.vi.1948 (ECR). **Leics.:** Gomshall 3 & 8.vii.1946 (EWE). **Ches.:** Illidge Green 17.vi.1945 (RK). **S.E. Yorks.:** Wharnccliffe Wood 1977-1979 (AB; in coll. AB).

stelligera Uthhoff-Kaufmann

S.E. Yorks.: Wharnccliffe Wood 1977-1979 (AB; in coll. AB).

subbinotata Podany

W. Kent: Chalk Wood 30.vi.1991 (KCL; in coll. KCL).

subsiniuata Depoli

Leics.: Budden Wood 26.vi.1935 (CWH). **S.E. Yorks.:** Wharnccliffe Wood 1977-1979 (AB; in coll. AB).

suturalis Uthhoff-Kaufmann

S. Devon: Ermington 16.vii.1944 (SK). **S. Hants.:** New Forest n.d. (ex coll. A. Ford); Southampton vi.1926 (WF). **E. Sussex:** Abbot's Wood 10.vii.1971 (RAJ; in coll. RAJ). **Berks.:** Reading n.d. (ex coll. A. Ford). **N. Lincs.:** Burwell Wood 3.vii.1946 (ECR); Legbourne Wood 8.vii.1946 (ECR); Linwood 1.viii.1946 (ECR). **Notts.:** Ollerton vii.1939 (DT).

sylvestris Uthhoff-Kaufmann

Leics.: Martinshaw Wood 25.viii.1946 (DT).

undulata Mulsant

S. Devon: Caton 18.vi.1944 (SK); Ermington 16.vii.1944 (SK); Holne 16.vii.1948 (AHN). **Surrey:** Milford 6.vii.1988 (RK). **Herts.:** Harpenden 8 & 20.vii.1940 (RK); Kinsbourne Green 10.vii.1941 (RK); Knebworth Great Wood vii.1946 (RSF). **N. Lincs.:** Legsby 18.vi.1946 (ECR); Langworth Wood 27.vi.1946 (ECR); Legbourne Wood 5 & 22.vii.1946 (ECR); Burwell Wood 4.vii.1946 (ECR); Skellingthorpe Wood 30.vi & 6.vii.1947 (ECR).

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Coelambus nigrolineatus (von Steven) (Dytiscidae) in Warwickshire

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During the course of a survey for the Severn-Trent Water Authority, I discovered 6 specimens of *Coelambus nigrolineatus* (von Steven) at Minworth Sewage Works (SP 183918, vice-county Warwickshire). This is a nationally Notable A species thought to colonise new habitats especially those of high conductivity, and is a recent colonist of England, this being the fifth location of its presence since its discovery in a Kent gravel pit in 1983 (Foster, in prep.).

The new pool at Minworth was created in June 1994 to enhance the conservation value of the area. It is 0.5 ha in size and is likely to be high in conductivity as the area once incorporated the sewage overflow from the sewage works. The macroinvertebrate survey was carried out three months later to assess initial colonisation. Other beetles found include *C. confluens* (Fabricius), *C. impressopunctatus* (Schaller), *Hydroglyphus pusillus* (Fabricius) (Dytiscidae) and *Helochares lividus* (Forster) (Hydrophilidae).

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I thank Garth Foster for confirming my identification of *C. nigrolineatus*.

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The notable arboreal Coleoptera of Bredon Hill, Worcestershire, England

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Introduction

Since 1970 I have maintained an archive record of the Coleoptera of Bredon Hill, Worcestershire. This fauna, which is extremely rich and diverse, is reflective of an intricate land-use mosaic. The total number of beetle species known from Bredon Hill is not yet finalised but it is known to be approximately half of the beetle fauna of Britain, a clear statement of biodiversity. It is one of the finest but most vulnerable heritage sites in Europe, now selected as a possible Special Area for Conservation (SAC) (J.N.C.C., 1995).

The Index of Ecological Continuity (for dead-wood Coleoptera in ancient woodlands) (IEC), a scoring system conceived by Dr K.N.A. Alexander of the National Trust (Harding & Alexander, 1994), confirms its importance. Table 1 shows this to be 112, making Bredon Hill the fifth most important site in Britain for such beetles at the present time. Columns 2 and 3 show (in italics) additional species and their suggested IEC scores which, from primary data on the Coleoptera of ancient woodland biotopes in Europe, I believe also to warrant inclusion in the list of ancient woodland indicator species. In recent times, various items have appeared in the entomological literature, in some cases regarding scarce stenotopic Coleoptera, which have not benefited from access to the original data now provided in this paper. An example of this is the extremely sensitive stenotopic corticolous anobiid *Gastrallus immarginatus* (Müller) which I have known on Bredon Hill since 1972 as well as from other sites in the south Midlands of England (Whitehead, *pers. obs.*) and for which detailed bionomic observations are to hand. In a modest way therefore, it is hoped that this paper will provide both baseline data and an appreciation of certain critical issues regarding the entomofauna of Bredon Hill.

The Coleoptera and their conservation

Labouring under the weight of this data, I approached English Nature, the government-funded conservation organisation, in 1991, to determine whether any formal safeguards could be established to protect such a rich biota. In the ensuing period a great deal of work has been undertaken with this objective in view. English Nature has now extended the National Nature Reserve on Bredon Hill and a greatly enlarged Site of Special Scientific Interest (381 ha) has been established, based largely on my recommendations. A prime objective of this is to safeguard populations of xylophilous Coleoptera, a number of which are scarce throughout their European ranges. Many of us involved with Bredon Hill are encouraged by these arrangements and by the work English

Nature is now planning, which is one reason why Bredon Hill has recently figured prominently in the media.

Bredon Hill is *emphatically not* a site at which the collecting of insects, other than for well-justified academic research programmes, should be contemplated (in Central Europe it is now recognised that populations of certain xylophilous Coleoptera are threatened by random investigation and some key sites are no longer identified by name). Many of the landowners on Bredon Hill are actively concerned to foster the welfare of their newly-appreciated biological assets, some of which are 'A'-selected Coleoptera (Greenslade, 1983) hanging on "by the tips of their tarsi" (Buckland & Dinnin, 1993). On the other hand Bredon Hill provides an enviable resource for students who wish to observe and study the biological heritage of Britain.

Bredon Hill

Bredon Hill (Pl. 1) is a lenticular Cotswold outlier of soft rocks of Jurassic age, capped by beds of the Inferior Oolitic Limestone formation. It is most readily defined in space by the peripheral road which circumvents it, giving it a surface area of 25 km². Morris (1984) and Whitehead (1992) are essential reading for those who wish to learn more about the site. A monographic treatment of the site is contemplated, whilst Whitehead (1995, 1996a) gives further important, moderately detailed background data.



Pl. 1: Elmley Castle deer park, Bredon Hill, Worcestershire 29.x.1995. This entire landscape is developed on Jurassic marine soft rocks, with the tree-clad medieval deer park (enclosed in 1234 AD) on the northeast-facing spur of Middle Lias in the foreground. P.F. Whitehead

Bredon Hill is a physical island in the marine plain of Tethys and experiences biological constraints and difficulties similar to modern sea-islands. It holds Bronze Age occupation sites, Iron Age hill-forts, is surrounded by settlements of Iron Age origin, has a medieval deer park, areas of pasture woodland with open-grown pollards of numerous tree species (Pl. 2), coppice woodland, closed-canopy ash woodland, ancient alder *Alnus* dells, and hedged boundaries dating back to Saxon times. Its comparative sanctity has been assured by a slow succession of influential landowners traceable back to the Normans.



Pl.2: Wind-blown oak *Quercus robur* pollard, Bredon Hill, Worcestershire. Many open-grown hardwood trees collapse when stressed, especially outgrown pollards. This structurally defective spiral-grained oak was unable to support its canopy and collapsed after leaf-flush in 1990. The collapse of such 'green' trees provides strong olfactory cues for many Coleoptera: a hitherto inaccessible cavity in this tree provided the only evidence so far of *Nemadus colonoides* (Kraatz) at Bredon Hill. P.F. Whitehead

The position of Bredon Hill, in relation to the vast woodland belts which once spread to the north of it, is crucial. This was the Coed Mawr, or Great Wood, of prehistory, a biological treasure-chest which covered thousands of square kilometres and blurred the boundaries of England and Wales. Some of these forests, which include Arden, Feckenham and Horewell, linked in the west to Malvern Chase (NCC, 1975) and the Forest of Hereford, in the north to Wyre and the Forest of Brentwood (Hinde, 1985) via the Forest of Ombersley and the lost riparian wildwoods of the Avon Valley (Whitehead, 1984), now exist only in name. This paper contains sure proof that Buckland, in his elegant

thesis (1979) was absolutely correct to suppose that "such areas of untidy woodland, were the saviours of many of our remaining old forest species".

The arboreal Coleoptera of Bredon Hill and their broader significance

The data on Bredon Hill is so voluminous that no one paper can accommodate all of it, and I am grateful for this opportunity to define in some detail those arboreal beetles which are formally recognised as being at least of Nationally Scarce, or Ancient Woodland Indicator status. The hill woodlands support an additionally very large number of insects of numerous orders which are an integral part of the woodland fauna. Some preliminary studies have been made on them in collaboration with experienced entomologists.

There is one further highly relevant issue, which can here only be touched on briefly, namely the question of what "ancient woodland" and Ancient Woodland Indicator (AWI) species actually are. Dealing with the last matter first, AWI species have recently been confirmed by Harding & Alexander (1994) as those species associated with *dead-wood habitats in ancient pasture-woodland* (although the more general term, "ancient woodland", is also employed (p. 23) by the same authors). We are fortunate in Britain to have access to such a valuable body of data. It may well be, however, that these original terms of reference (Harding & Rose, 1986) are in themselves not sufficiently exact to determine the true significance of many communities of forest and woodland Coleoptera, likely to be of real value to students who wish to assess the impact of habitat change on the composition and structure of whole faunas.

A way forward here is to regard the majority of AWI Coleoptera as Urwaldrelikts from the temperate angiosperm forests of Europe (which is what many of them are), and to understand that some British woodlands are culture-based, modern-interglacial "images" of Urwald (the continental term having precedence over "wildwood"), parallelling its natural climate-determined breakup. This leads me back to the first point. There has been a general, perhaps popular, impression in Britain that little or no Urwald remains and that it is an entity somewhat fixed in composition and structure. Rackham (1986) demonstrated the weakness inherent in this, as do Coleoptera faunas (Whitehead, 1996b), which suggest that some sites, most apparently in Wales, are effectively true Urwald, developed by combinations of geological, physiographical and human impact, not all of equal effect. Such woodlands are sometimes referred to as sub-climaxes, but their Coleoptera faunas contain numerous true Urwaldtier.

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Table 1: Nationally scarce species of arboreal Coleoptera of Bredon Hill showing 1: Nationally Scarce or RDB status; 2: AWI status; 3: IEC species score; 4: site host trees. Correct at 19th Feb. 1996.

	1	2	3	4
Histeridae				
<i>Plegaderus dissectus</i> Erichson	Nb	AW2	2	ash,elm
<i>Abraeus granulum</i> Erichson	Na	AW1	3	ash
<i>Aeletes atomarius</i> (Aubé)	RDB3	AW1	3	elm,oak
<i>Acrilus homoeopathicus</i> Wollaston	RDB3	AW	2	ash
Ptiliidae				
<i>Nossidium pilosellum</i> (Marsham)	N	AW	2	apple,ash,elm,oak
<i>Ptenidium gressneri</i> Erichson	N	AW2	2	oak
<i>Ptinella denticollis</i> (Fairmaire)	N			sycamore
Leiodidae				
<i>Leiodes rugosa</i> Stephens	N			beech

Scydmaenidae				
<i>Stenichnus godarti</i> (Latreille)	RDB3	AW1	3	ash
Scaphidiidae				
<i>Scaphisoma boleti</i> (Panzer)	Nb			elm,ash
Staphylinidae				
<i>Hypopocyna rufula</i> (Erichson)	RDBK			sycamore,willow
<i>Xantholinus angularis</i> Ganglbauer	Na	AW3	1	beech
<i>Quedius microps</i> Gravenhorst	Nb	AW3	1	ash,willow
<i>Quedius scitus</i> (Gravenhorst)	Nb	AW3	1	oak
<i>Quedius ventralis</i> (Aragona)	Nb	AW3	1	oak
<i>Sepedophilus bipunctatus</i> (Gravenhorst)	Nb	AW	2	elm,ash
<i>Sepedophilus testaceus</i> (Fabricius)	N	AW	1	elm,ash,beech,chestnut
<i>Oligota apicata</i> Erichson	N			oak,elm,willow
<i>Oligota flavicornis</i> Boisduval & Lacordaire	N			oak
<i>Oligota granaria</i> Erichson	?RDB			sycamore
<i>Gyrophaena angustata</i> (Stephens)	N			elm,sycamore
<i>Gyrophaena joyi</i> Wendeler	N			elm
<i>Rhopalocera clavigera</i> (Scriba)	RDBK			apple
<i>Phloeopora corticalis</i> (Gravenhorst)	Nb			beech
<i>Dexiogyia corticina</i> (Erichson)	N			willow,apple,oak,elm
Pselaphidae				
<i>Bibloporus minutus</i> Raffray	Nb	AW2	2	birch
Lucanidae				
<i>Sinodendron cylindricum</i> (Linnaeus)		AW3	1	ash,elm,beech
Scarabaeidae				
<i>Gnorimus nobilis</i> (Linnaeus)	RDB2	AW	1	apple,willow
Clambidae				
<i>Clambus pallidulus</i> Reitter	RDBK			apple
Buprestidae				
<i>Agrilus laticornis</i> (Illiger)	Nb			oak
<i>Agrilus sinuatus</i> (Olivier)	Na			hawthorn
Elateridae				
<i>Ampedus pomorum</i> (Herbst)	Nb	AW3	1	ash,maple
<i>Ampedus rufipennis</i> (Stephens)	RDB2	AW1	3	elm,ash,oak
<i>Ischnodes sanguinicollis</i> (Panzer)	Na	AW2	2	ash,oak
<i>Procræus tibialis</i> Boisduval & Lacordaire	RDB3	AW1	3	apple,ash,beech
<i>Limonicus violaceus</i> (Müller)	RDB1	AW1	3	ash,oak
<i>Stenagostus rhombeus</i> (Olivier)		AW3	1	ash,willow
Throscidae				
<i>Aulonothroscus brevicollis</i> (Bonvouloir)	RDB3	AW1	3	hazel
Eucnemidae				
<i>Eucnemis capucina</i> Ahrens	RDB1	AW1	3	maple
<i>Epiphanius cornutus</i> Eschscholtz	?	?		Douglas-fir
Cantharidae				
<i>Rhagonycha lutea</i> (Müller)	Nb			maple
<i>Malthinus balteatus</i> Suffrian	Nb			oak
<i>Malthinus fibulatus</i> Kiesenwetter	Nb			?ash
Lycidae				
<i>Platycis minutus</i> (Fabricius)	Nb	AW3	1	elm

Dermestidae				
<i>Globicornis nigripes</i> (Fabricius)	RDB1	AW2	2	beech,?oak,?maple
<i>Megatoma undata</i> (Linnaeus)	Nb			elm,maple,willow
<i>Ctesias serra</i> (Fabricius)	Nb	AW3	1	pear,apple,willow
Anobiidae				
<i>Ptinomorphus imperialis</i> (Linnaeus)	Nb			oak,ash
<i>Xestobium rufovillosum</i> (Degeer)		AW3	1	oak
<i>Gastrallus immarginatus</i> (Müller)	RDB1	AW1	3	maple
<i>Anobium inexpectatum</i> Lohse	Nb			ivy
<i>Hadrobregmus denticollis</i> (Creutzer)	Nb	AW	1	willow,oak,elm
<i>Dorcatoma chrysomelina</i> Sturm		AW2	2	oak
<i>Dorcatoma dresdensis</i> Herbst	Na	AW2	2	birch
<i>Dorcatoma flavicornis</i> (Fabricius)	Nb	AW3	1	oak
<i>Dorcatoma serra</i> Panzer	Na	AW2	2	oak
Cleridae				
<i>Tillus elongatus</i> (Linnaeus)	Nb	AW3	1	beech,oak,maple,ash
<i>Opilo mollis</i> (Linnaeus)	Nb	AW3	1	oak,maple,willow
<i>Thanasimus formicarius</i> (Linnaeus)		AW3	1	elm,maple,oak
<i>Korynetes caeruleus</i> Degeer	Nb	AW3	1	oak
Cucujidae				
<i>Uleiota planata</i> (Linnaeus)	Na	AW1	3	sycamore
<i>Pediacus dermestoides</i> (Fabricius)		AW3	1	ash,oak
<i>Notolaemus unifasciatus</i> (Latreille)	Na	AW2	2	oak
Silvanidae				
<i>Silvanus unidentatus</i> (Fabricius)		AW3	1	apple
Cryptophagidae				
<i>Cryptophagus intermedius</i> Bruce	RDBK	AW	3	beech,oak,ash
<i>Cryptophagus labilis</i> Erichson	N	AW	2	beech,elm,oak,apple
<i>Cryptophagus ruficornis</i> Stephens	N	AW	3	ash
Biphyllidae				
<i>Biphyllus lunatus</i> (Fabricius)		AW3	1	ash,sycamore
<i>Diplocoelus fagi</i> Guérin-Méneville	Nb	AW2	2	sycamore,ash
Erotylidae				
<i>Triplax aenea</i> (Schaller)		AW3	1	elm,sycamore,laburnum
<i>Triplax russica</i> (Linnaeus)		AW3	1	ash,beech
Cerylonidae				
<i>Anommatus duodecimstriatus</i> (Müller)	Na			
Corylophidae				
<i>Orthoperus aequalis</i> Sharp	RDBK	AW	3	ash,willow
<i>Orthoperus nigrescens</i> Stephens	Nb	AW	1	oak,ash
Endomychidae				
<i>Symbiotes latus</i> Redtenbacher	Nb	AW3	1	sycamore
Latridiidae				
<i>Enicmus brevicornis</i> Mannerheim	N	AW2	2	sycamore
<i>Enicmus rugosus</i> (Herbst)	N	AW2	2	oak
<i>Corticaria alleni</i> Johnson	N	AW1	3	ash,oak
Ciidae				
<i>Sulcacis bicornis</i> (Mellié)	Nb	AW	1	beech

Mycetophagidae			
<i>Pseudotriphyllus suturalis</i> (Fabricius)		AW3	1 elm,sycamore,ash,oak
<i>Triphyllus bicolor</i> (Fabricius)		AW3	1 ash
<i>Mycetophagus atomarius</i> (Fabricius)		AW3	1 beech,ash
<i>Mycetophagus piceus</i> (Fabricius)	Nb	AW3	1 oak,ash
<i>Mycetophagus quadriguttatus</i> Müller	Na	AW	3 ash,beech,oak
Colydiidae			
<i>Bitoma crenata</i> (Fabricius)		AW3	1 elm,ash,oak
Tenebrionidae			
<i>Eledona agricola</i> (Herbst)	Nb	AW3	1 oak,yew
<i>Scaphidema metallicum</i> (Fabricius)	Nb		maple,elder
<i>Prionychus ater</i> (Fabricius)	Nb	AW3	1 apple,ash
<i>Prionychus melanarius</i> (Germar)	RDB2	AW1	3 ash,willow,elm,oak
<i>Pseudocistela ceramboides</i> (Linnaeus)	Nb	AW2	2 apple,ash,oak,beech
Salpingidae			
<i>Lissodema cursor</i> (Gyllenhal)	Na	AW	1 ash
<i>Lissodema quadripustulata</i> (Marsham)	Nb	AW	1 hawthorn,maple, apple,oak
Melandryidae			
<i>Orchesia micans</i> (Panzer)	Nb		ash,apple
<i>Orchesia undulata</i> Kraatz		AW3	1 beech
<i>Abdera biflexuosa</i> (Curtis)	Nb	AW3	1 oak
<i>Abdera quadrifasciata</i> (Curtis)	Na	AW3	1 oak
<i>Phloiotrya vaudoueri</i> Mulsant	Nb	AW2	2 oak
<i>Conopalpus testaceus</i> (Olivier)	Nb	AW3	1 oak,sloe
Scraptiidae			
<i>Scraptia testacea</i> Allen	RDB3	AW1	3 oak
<i>Anaspis thoracica</i> (Linnaeus)	Na	AW	2 ash
Mordellidae			
<i>Mordellistena neuwaldeggiana</i> (Panzer)	RDBK	AW	2 oak,sloe,elm
Oedemeridae			
<i>Ischnomera cyanea</i> (Fabricius)	Nb	AW3	1 oak,elm,ash
<i>Ischnomera cinerascens</i> Pandellé	RDB2	AW1	3 oak
<i>Ischnomera sanguinicollis</i> (Fabricius)	Nb	AW1	3 alder,lime
<i>Oncomera femorata</i> (Fabricius)	Nb	?	
Aderidae			
<i>Aderus oculatus</i> (Paykull)	Nb	AW3	1 oak
<i>Aderus populneus</i> (Creutzer)	Nb	AW	2 oak
Cerambycidae			
<i>Gracilia minuta</i> (Fabricius)	RDB2	AW	2 plum,oak
<i>Phymatodes testaceus</i> (Linnaeus)		AW2	1 oak
<i>Anaglyptus mysticus</i> (Linnaeus)	Nb		ash,horse chestnut
Anthribidae			
<i>Platyrhinus resinosus</i> (Scopoli)	Nb	AW3	1 ash,beech,maple
<i>Anthribus fasciatus</i> (Forster)	Na		hawthorn
<i>Choragus sheppardi</i> Kirby	Na	AW	3 maple
Curculionidae			
<i>Magdalis barbicornis</i> (Latreille)	Na		apple
<i>Magdalis cerasi</i> (Linnaeus)	Nb		oak

<i>Cossonus ferrugineus</i> Clairville	Nb	AW3	1 ash
<i>Stereocorynes truncorum</i> (Germar)	Na	AW1	3 maple,beech,apple
<i>Dorytomus ictor</i> (Herbst)	Nb		poplar
<i>Curculio villosus</i> (Fabricius)	Nb		oak
Scolytidae			
<i>Scolytus mali</i> (Bechstein)	Nb		apple
<i>Kissophagus hederæ</i> (Schmitt)	Nb		ivy
<i>Xyleborus saxesenii</i> (Ratzeburg)		AW3	1 oak
I.E.C. (Alexander)			112
I.E.C. (Whitehead)			150

What is the distribution and ecology of *Atheta divisa* (Märkel) (Staphylinidae)?

L. Jessop

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On May 10 this year I set out a flight interception trap in a small (about 15 x 15 m) wild garden at the back of the Hancock Museum in Newcastle (VC 67; NZ 248652), out of interest to see what beetles would occur in a flight interception trap in a small urban nature space. The sample at the end of the first two-week period mostly lived up to expectations: there were single specimens of *Bembidion biguttatum* (Fabricius), *Amara familiaris* (Duftschmid), *Anotylus tetracariniatus* (Block), *Tachyporus pusillus* Gravenhorst, *Atheta crassicornis* (Fabricius), *Meligethes aeneus* (Fabricius), *Chaetocnema concinna* (Marsham), *Ottorrhynchus singularis* (Linnaeus) and *Barynotus obscurus* (Fabricius). Surprisingly, however, there were also 51 specimens of *Atheta divisa* Märkel.

The national distribution of *A. divisa* seems to be unclear. It is currently classified as 'unknown' (RECORDER 3.2 biological recording computer program), which represents no advance on the situation 108 years ago when Fowler described it as "rather widely distributed, but rare" (Fowler, 1888). The few records cited by Fowler are thinly spread through south-east England, the midlands and northwards to the Forth and Solway Districts of Scotland, and from Waterford in Ireland, although none from south-west England or Wales. There was one Northumberland record, from Holy Island (*J.J. Walker*).

As to habitat, Fowler mentioned fungi, moss, dead leaves, dead animals &c. More recently, it has been listed among the fauna of Badger setts (Hancox, 1988), and Benick & Lohse (1974) state "*gern in Nestern und Säugerbauen*" [often in nests and mammal nests / dens / burrows]. Over several decades, the garden has been used by Museum staff as a temporary burial ground for various mammals, the remains of which are later retrieved for the osteology collections. If *A. divisa* is in some way usually associated with dead animals and is partly terrestrial in its habits, could this explain its relative abundance in the garden?

It would be interesting to hear of the experience of other coleopterists with this species so that a more detailed picture of its distribution and habits can be drawn up.

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Notable Coleoptera records - 3

P.F. Whitehead

Moor Leys, Little Comberton, Pershore, Worcestershire WR10 3EH

This note follows on from Whitehead (1992, 1994). It provides data, not simply on scarce or rare Coleoptera, but also on novel aspects of ecology and little known host-plant associations, and may be of use to recorders or specialists with mapping schemes under way.

Initialled records credit people from whom they originate, namely John Baskeyfield, Andy Godfrey, Harry Green, John Meiklejohn and Stuart Corbet, whose input is acknowledged with thanks, all others being original. Records marked * are new to the vice-county, with the usual proviso that unknown archive records may exist; those marked (!) are sensitive species with conservation as a priority. The national and ancient woodland statuses are those of British literature at the present time. All are for single specimens unless stated otherwise.

SOUTH DEVON (VC 3), all SS 97. Tenebrionidae: *Cylindronotus pallidus* (Curtis) (! Nb), Dawlish, 19.viii.1993. Curculionidae: *Sitona waterhousei* Walton (Nb), several at *Ononis repens* L., Dawlish, 19.viii.1993.

BERKSHIRE (VC 22), all from Windsor, SU 97, study visits with English Nature specialists. Elateridae: *Ampedus balteatus* (Linnaeus), *A. cardinalis* (Schiödte) (RDB2 AW1), *A. elongantulus* (Fabricius) (!! Na AW3), in single oak pollard, with larvae, 5.vi.1994. Cryptophagidae: *Cryptophagus labilis* Erichson (N), *Fagus* wood spall, 6.v.1994. Erotylidae: *Tritoma bipustulata* Fabricius (! Na AW3), in *Coriulus versicolor* (L.) Fr. on *Fagus*, 6.v.1994. Ciidae: *Cis coluber* Abeille (! RDB3 AW2), several in *Coriulus versicolor* (L.) Fr. on *Fagus*, 6.v.1994. Colydiidae: *Colydium elongatum* (Fabricius) (! RDB3 AW1), swept under *Fagus*, 6.v.1994. Cerambycidae: *Grammoptera ustulata* (Schaller) (! RDB3 AW1), on flowers of *Prunus serotina* Ehrh., 6.v.1994. Chrysomelidae: *Cryptocephalus querceti* Suffrian (!! RDB2 AW1), swept, 6.v.1994.

EAST GLOUCESTERSHIRE (VC 33). Histeridae: **Kissister minimus* (Aubé), Twynning (SO 93), 34 around rabbit warrens on fluvial sands, 29.i.1995 (probably flooded out). Staphylinidae: **Aleochara brevipennis* Gravenhorst (N), Twynning (SO 93), flood litter, 29.i.1995.

HEREFORDSHIRE (VC 36), all SO 34. Staphylinidae: *Lathrobium fulvipenne* (Gravenhorst), Moccas Park, 2.1 m up oak tree *Quercus robur* L. 28.vii.1993 (generally strictly terrestrial). Anobiidae: **Dorcatoma dresdensis* Herbst (Na AW2), Moccas Park, dead in *Ganoderma*, 28.vii.1993; *Xyletinus longitarsis* Jansson (!! RDB2 AW3), Moccas Park, 1.vii.1994 (A.G.) *locus classicus*. Lymexelidae: *Lymexylon navale* (Linnaeus) (!! RDB2 AW1), Moccas Park, on *Quercus robur* L. 1.vii.1994 (A.G.) *locus classicus*.

WORCESTERSHIRE (VC 37). Carabidae: *Carabus violaceus* Linnaeus, Little Comberton (SO 94), male wintering in fabricated cell of compacted clay under roots of *Lythrum salicaria* L., 5.xii.1993; *Bembidion quadripustulatum* Serville (Nb), Broadway (SP 03), under *Salix* bark, carr, 31.i.1994 (rare winter record); *Bembidion litorale* (Olivier) (Nb), Clifton-on-Teme (SO 76), in numbers, sand bar in bed of river, 24.vi.1995; *Bembidion iricolor* Bedel, Bredon (SO 93), flood strand, 10.i.1994. [Amendment to Whitehead (1989) - I am now in no doubt that the true identity of the *Calathus mollis* Marsham on the Worcestershire Malvern Hills, 7.vi.1987, is **C. cinctus* Motschulsky.] Histeridae: *Acrilus nigricornis* (Hoffmann), Little Comberton (SO 94), 38 in nest of *Rattus norvegicus* (Berk.). Leiodidae: (?*) *Agathidium atrum* (Paykull), (!) Malvern Hills, litter on open hillside, 5.iv.1994. Staphylinidae: **Phloeocharis subtilissima* Mannerheim, nr Evesham (SP 04), on *Acer pseudoplatanus* L. 29.iii.1994 (northern record); *Stenus subaeneus* Erichson, Pershore (SO 94), 5.6 m up *Cedrus atlantica* (Endl.) Carriere, 3.x.1994; *Philonthus immundus* (Gyllenhal), Broadway (SP 14), in compost, 18.x.1995; *Heterothops praeivus* Erichson, Little Comberton (SO 94), 4 (?breeding) in nest of *Rattus norvegicus* (Berk.) 4.x.1994; **Atheta (Dimetrota) laevana* (Mulsant), Broadway

(SP 04), in old dry potato, 12.v.1989; *Sepedophilus constans* (Fowler) (!), Teme valley, west of Worcester (SO 75), flood strand, 4.iv.1994 (southern record); *Aleochara brevipennis* Gravenhorst (N), Bredon (SO 93), flood strand, 10.i.1994. Scarabaeidae: *Serica brunnea* (Linnaeus), Pensham (SO 94), c. 30, with larvae, at roots of *Syringa* stump on sandy gravel, 14.vii.1995 (J.B.) (decreasing locally or forming isolated populations); *Gnorimus nobilis* Linnaeus (!! RDB2), nr Pershore (SO 94), 3 on flowers of *Daucus carota gummifer* (Syme) Hook, 25.v.1993 (J.W.M.). Elateridae: *Selatosomus nigricornis* (Panzer) (! RDB3), nr Pershore (SO 94), 39, synchronised emergence, alluvial meadow, 13.vi.1994. Eucnemidae: *Melasis buprestoides* (Linnaeus) (Nb AW3), Strensham (SO 94), dead in ash wood, 20.iii.1995. Derodontidae: *Laricobius erichsonii* Rosenhauer, Lower Moor (SO 94) in flight, open country, 11.iv.1994 (now established in VC). Clambidae: *Clambus nigrellus* Reitter (! Na), Teme valley, west of Worcester (SO 75), flood strand, 4.iv.1994. Cleridae: *Opilo mollis* (Linnaeus) (Nb AW3), Bredon (SO 93), crawling amongst spider webs under bark of *Salix* pollard, 10.i.1994. Merophysidae: *Holoparamesus caularum* (Aubé), Little Comberton (SO 94), 3 in compost, 23.ix.1995. Tenebrionidae: *Corticeus bicolor* (Olivier) (!), Strensham (SO 94), on *Daldinia*-infested ash, 20.iii.1995. Melandryidae: *Osphya bipunctata* (Fabricius) (! RDB3), nr Pershore (SO 94), dead in leaf axil of *Dipsacus*, 6.vi.1993 (G.H.G.); several, 8.v.1994, 7.v.1995 (J.W.M.). Cerambycidae: *Asemum striatum* (Linnaeus), nr Pershore (SO 94), on *Picea* stump, 7.v.1995; Chrysomelidae: *Chrysolina brunsvicensis* (Gravenhorst), Evesham (SP 04) town garden, wintering adult amongst cultivated shrubby *Hypericum* litter, 7.iii.1994 (usually on native herbaceous species); *Phyllotreta nemorum* (Linnaeus), Kinsham (SO 93), form with blackened appendages, 16.vii.1992. Curculionidae: **Gronops lunatus* (Fabricius) (! Nb) Upton Warren (SO 96), brackish subsidence pools, 2.v.1994, the association with inland *Spergularia marina* (L.) Griseb is significant. (G.H.G., det. P.F.W.).

WARWICKSHIRE (VC 38), all SP 15. Carabidae: **Tachys parvulus* (Dejean) (Nb), Barton, 21.iii.1994, 18.ix.1995, amongst cracks on limestone path. Staphylinidae: **Acidota cruentata* Mannerheim (!) Drayton, arable, 3, 18.xi.1993; 1, 13.i.1994; (S.C.); **Lathrobium pallidum* von Nordmann (!! RDBK), Drayton, arable, 8.vii.1993 (S.C.); *Sunius melanocephalus* (Fabricius) (N), Barton, mossy rocks by weir, 21.iii.1994 (not typical habitat); **Achenium depressum* (Gravenhorst) Drayton, arable, 8.vi.1995; *Achenium humile* (Nicolai) (Nb), Drayton, arable 12.v.1994 (S.C.); *Xantholinus jarrigei* Coiffait (!) Drayton, arable, 6, 4.viii.1994. (all det. P.F.W.).

SHROPSHIRE (VC 40). Staphylinidae: *Silusa rubiginosa* Erichson (N), Attingham Park, Shrewsbury (SJ 51), sap-run on *Aesculus*, 24.v.1994 (A.G.) (northern record).

GLAMORGAN (VC 41). Staphylinidae: *Philonthus lepidus* (Gravenhorst) (!! RDBK), coast, 23.vii.1995, second Welsh and VC record.

DERBYSHIRE (VC 57). Anobiidae: *Xestobium rufovillosum* (Degeer) (! AW3), Calke Abbey SSSI (SR 32) fragments *in situ*, *Quercus robur* L., 8.v.1995 (A.G.).

SOUTH LANCASHIRE (VC 59). Melandryidae: *Phloiotrya vaudoueri* Mulsant (! Nb AW2), St. Helens (SJ 59), dead in *Quercus robur* L., 28.ix.1994 (A.G.) (significant northern record). Oedemeridae: *Nacerdes melanura* (Linnaeus), Freshfield (SD 20), 9, beach drift, 19.vii.1994.

AYRSHIRE (VC 75). Staphylinidae: *Liogluta longiuscula* (Gravenhorst), Culzean (NS 20), in wood-mould in cavity in *Aesculus*, 1.7 m from ground, collected 4.vii.1995, dead in container 6.xii.1995 (A.G.) (not normally arboreal, usually open exposed sites).

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Agonum viduum (Panzer) and *A. moestum* (Duftschmid) (Carabidae) in Scotland

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During 1995, ground beetles were surveyed intensively in a variety of Scottish farmland habitats as part of a detailed study of plant-invertebrate-bird relationships. One set of pitfall traps was established at 165 m a.s.l. within an area of sheep- and cattle-grazed upland pasture on the northern side of the River Fillan near Crianlarich (NN 3825), with the traps located across low-growing bog vegetation in a wet flush next to a small fast-moving stream. This set of traps collected a total of 6 specimens of *Agonum viduum* (Panzer) and 4 specimens of *A. moestum* (Duftschmid) as follows: 2 males and 2 females of *A. viduum* together with 3 males of *A. moestum* between 2 May and 7 June, 1 male and 1 female of *A. viduum* together with 1 female of *A. moestum* between 7 June and 30 June. These traps were emptied at three further monthly intervals until 6 October, but no additional specimens of either species were obtained.

Of all the characters given by Lindroth (1974) to separate these species, the most useful and consistent was found to be the colour of the upper surface, i.e. constantly metallic with greenish lustre in *A. viduum* compared to unmetallic black in *A. moestum*. The collected specimens of *A. moestum* were slightly larger than those of *A. viduum* (average length from the front of the clypeus to the apex of the elytra 7.83 and 7.68 mm respectively; maximum width of the elytra 3.35 and 3.12 mm), but there was a significant overlap in the observed size range of both species (length 7.6-8.1 and 7.2-8.6 mm respectively, width 3.2-3.5 and 2.9-3.5 mm).

In the literature, *A. viduum* is recorded as occurring at the margin of all kinds of fresh water, especially where the vegetation is rich, and is described as tolerating moderate shade but preferring open shores exposed to the sun (Lindroth, 1945, 1974). *A. moestum* is recorded as sharing much the same habitat as *A. viduum*, though preferring moderate shade on more clayish soil, but is also described as only living alongside stagnant eutrophic waters. Both species have commonly been found in managed, minerotrophic-rich fens in Welsh peatlands, although they have also occurred occasionally in reedbeds and other peatland habitats (Holmes *et al.*, 1993). The vegetation at the Scottish site on which both species were found to coexist is dominated by *Juncus articulatus*, *Molinia caerulea* and *Carex panicea*, with *Scirpus cespitosus* and *Potentilla erecta* also present in significant amounts. It can be classified as *Scirpus cespitosus-Erica tetralix* wet heath subcommunity *Carex panicea* (M15a) under the National Vegetation Classification (Rodwell, 1991).

Although not rare in the British Isles as a whole (Lindroth, 1974), *A. viduum* is regarded as a rare marshland species in Scotland, having only been recorded previously in three 10 km squares in the south-west of the country, and this therefore represents the first record of this species north of the central lowlands (EMS, 1993: derived from Dr M.L. Luff unpublished data). The British distribution of *A. moestum* is less well known, due to earlier confusion with *A. viduum* (Lindroth, 1945, 1974), but this appears to be the first record of this species in Scotland (EMS, 1993: derived from Dr M.L. Luff unpublished data).

Acknowledgements

The 1995 ground-beetle survey on Scottish farmland was conducted as part of an ongoing joint research project between the Scottish Agricultural College and the University of Glasgow, funded by the Scottish Office's Agriculture, Environment and Fisheries Department. We are indebted to Mr J. Christie and Mr H. McLaughlin for allowing access to the farmland on which these two species were found and to Dr V.J. Abernethy for the brief description of the associated vegetation community.

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

Warwickshire ground beetle records wanted: For inclusion in the 'Ground Beetle Atlas' as part of the 'Benchmark' series. *Trevor G. Forsythe* 5 Knob Hill, Stretton on Dunsmore, Warwickshire CV23 9NN Fax.: (01203) 542688.

Strepsiptera study group: I am considering forming a study group for the Strepsiptera (= Stylopidae) of the British Isles, and would be interested in corresponding with anyone who has any experience of this group. *A.G. Duff* 2 Weavers Court, Frome, Somerset BA11 4EJ

Mini-interception nets: See letter describing this new collecting device in the April 1996 issue. Now available for £4.40 incl. VAT, postage and packing extra. *Bob George Marris* House Nets, 54 Richmond Park Avenue, Bournemouth BH8 9DR.

For sale: *Entomologist's Record & J. Var.* Vol. 5 [1894] lacks May issue only, in wrappers with index and title page; Vol. 96 [1984] Parts 3-12 plus indices, wrappers; Vol. 97 [1985] complete, wrappers; Vol. 98 [1986] complete but lacks indices, wrappers. Each = £5 or £15 the lot, plus postage. *J. Cooter* 19 Mount Crescent, Hereford HR1 1NQ.

Records of *Arhopalus rusticus* wanted: For a future publication, I am compiling records held by museums or county recorders of *Arhopalus rusticus* (Linnaeus) (= *Criocephalus* in Fowler) (Cerambycidae) from the British Isles, that have not been published in any journal. Postage will be refunded. *Keith C. Lewis* 108 Park View Road, Welling, Kent DA16 1SJ.

Lower Derwent Valley records wanted: Work is underway to produce a complete list of the beetles of the Lower Derwent Valley, Yorkshire, to be produced in booklet form. The area is important for its beetle fauna and to date over 700 species have been recorded. The database of the Yorkshire Naturalists' Union is a valuable source of data but it is known that there is a wealth of data on the personal files of many coleopterists. All records (even of commoner species) will be greatly appreciated and all recorders will be duly acknowledged. Please send your records to: *Mike Denton* Yorkshire Museum, Museum Gardens, York YO1 2DR or *Bob Marsh* 11 Crusader Drive, Sprotborough, Doncaster, Yorkshire DN5 7RX.

***Anaspis septentrionalis* Champion, a senior synonym of *A. schilskyana* Csiki (Scraptiidae)**

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Anaspis septentrionalis Champion, 1891, is listed as endemic and extinct in Hyman (1992). The species was described from two specimens, a male and female collected at Aviemore, East Inverness & Nairn, in July 1876 (Champion, 1891), and there are no further published records of additional specimens from Britain or continental Europe.

I am at present preparing a new key to the British *Anaspis* species, and have recently examined the male and female syntypes of *A. septentrionalis* kept in the collections of the Natural History Museum, London, and find they are conspecific with British specimens of *A. schilskyana* Csiki, 1915, that I have examined. The shape of the antennal segments, apical segment of the maxillary palp, fore tibia and tarsus, mid tibia, appendages of the abdominal sternite in the male and the aedeagus are identical in both species. *A. septentrionalis* was described first and is therefore the correct name for the species we know as *A. schilskyana* (**syn. nov.**).

Allen (1975), in his key to the black species of British *Anaspis* (*s. str.*), added *A. schilskyana* to the British list but made no reference to *A. septentrionalis*. Allen pointed out that in *A. schilskyana* the pronotum widens rectilinearly to the base and the lateral margin when viewed from the side is sinuate near the base. The former characteristic is present in the male syntype of *A. septentrionalis* but the latter characteristic is less well developed than in specimens of *A. schilskyana* I have examined. However the female syntype shows both these characteristics, and no doubt this is just another example of intraspecific variation in this taxonomically difficult group.

In most *Anaspis* species intraspecific colour variation is normal, and *A. septentrionalis* (= *A. schilskyana*) is no exception in this respect. Allen (1975) says that in *A. schilskyana* the pronotum has the sides paler (yellow-brown) than the disc. However, the syntypes of *A. septentrionalis* resemble specimens from Moccas Park, Herefordshire, in having the pronotum almost uniformly dark tan, as noted by Owen (1982), only the anterior lateral angles being narrowly paler.

Apart from Aviemore, *A. septentrionalis* (as *A. schilskyana*) is recorded from Blenheim, Oxfordshire and Moccas Park. I can add two new localities to the list: Sherwood, Nottinghamshire - 1 male vi. 1907 ex. Kidson Taylor collection, in the Manchester University Museum; 1 male ex. J.R. le B. Tomlin collection, in the National Museums & Galleries of Wales, and Calke Abbey, Derbyshire - 1 female, 14.vi.1988, ex. E.W. Aubrook collection, in the Manchester University Museum.

Based on its known distribution in Britain, it appears probable that *A. septentrionalis* is only found in ancient woodland sites. The lack of records for S.E. England, from well-collected ancient woodland sites such as Windsor Great Park, the New Forest etc., is perhaps not unexpected given its northern distribution in continental Europe, where, as *A. schilskyana*, it is known from N. Germany, N. Poland, Denmark, Sweden and probably other parts of Scandinavia (Ermisch, 1956).

Acknowledgements

I wish to thank Colin Johnson for the loan of specimens from the Manchester University Museum, and Malcolm Kerley of the Natural History Museum, London for access to the collections.

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Conservation News

* The biggest news of the year is undoubtedly the publication of the UK's Biodiversity Action Plan (UK Steering Group, 1995) and the Government's acceptance of its objectives. In this are "Species Action Plans" for 12 species of beetles and a listing of 75 other species for future conservation action. Species with published action plans are:-

Aphodius niger (Panzer)

Bembidion argenteolum Ahrens

Carabus intricatus Linnaeus

Cathormiocerus britannicus Blair

Cryptocephalus coryli (Linnaeus)

Cryptocephalus exiguus Schneider

Limoniscus violaceus (Müller, P.W.J.)

Lucanus cervus (Linnaeus)

Oberea oculata (Linnaeus)

Panagaeus cruxmajor (Linnaeus)

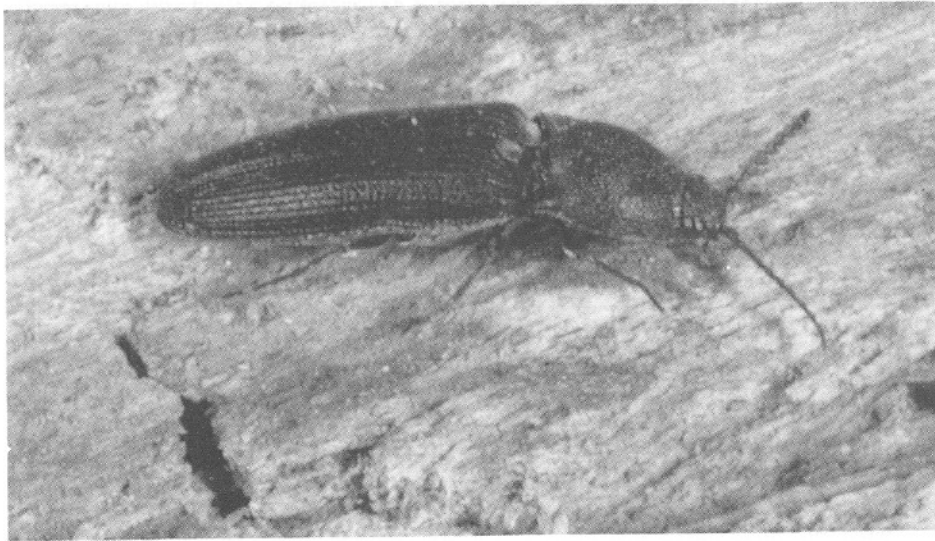
Stenus palposus Zetterstedt

Tachys edmondsi Moore

* Small projects have already started on *Aphodius niger*, *Cryptocephalus coryli*, *C. exiguus*, *Panagaeus cruxmajor* and *Limoniscus violaceus* (Pl. 1) under English Nature's Species Recovery Programme. The first four of these are survey and autecology projects aimed to refind the species (in the case of *C. exiguus*) and determine what ecological factors led to their decline and/or are currently keeping them rare. With *Limoniscus violaceus*, more experimental work on *in situ* artificial media will start in the autumn after the apparent success of Ted Green's experiment (see last year's *Conservation News*).

* Under the European Union Habitats and Species Directives, Britain has to declare sites as Special Areas for Conservation - a sort of super SSSI with inbuilt management and monitoring - for two species of beetle: *Limoniscus violaceus* and *Lucanus cervus*. Not surprisingly, Bredon Hill and Windsor Forest & Park have been put forward for *L. violaceus* and Epping Forest, the New Forest and Windsor been put forward for *L. cervus*. The violet click beetle attracted considerable media attention this year when £30,000 worth of extra trees were planted for its long term future at Bredon Hill.

* The Department of the Environment has announced a "championing" system, whereby other organizations or individuals take the lead in furthering the conservation of particular species. We're still not sure quite what this means and what those organizations will be expected to put into the projects - money, manpower or expertise. So far Lord Montagu of Beaulieu has volunteered to champion *Aphodius niger* and the National Trust is championing the Lundy Cabbage (and thereby, effectively, *Psylliodes luridipennis* Kutschera).



Pl. 1: Violet Click Beetle *Limoniscus violaceus*, Windsor, Berkshire R.S. Key

- * Two important beetle sites, Richmond Park and the island of Lundy are being put forward for Nature Conservation Review Status. This would make them eligible for declaration as National Nature Reserves under agreement with English Nature (EN).
- * Under the current five-yearly review of species protected under the 1981 Wildlife and Countryside Act, the legal status of only one beetle is likely to be affected. The stag beetle, *Lucanus cervus*, is proposed for legal protection with respect to its collection *for sale only*. This species is fully protected in most European countries where it occurs, but we felt that it was too common in Britain, especially in urban areas in south-east England, for there to be such a need in Britain. There was widespread consultation over the proposal with voluntary conservation bodies and amateur and professional entomological organizations. The Department of the Environment will now consult more widely before the proposal becomes law, probably in 1997.
- * The Joint Nature Conservation Committee is close to producing the third volume in the Review of Scarce and Threatened Beetles publication, this time on aquatic beetles by Garth Foster (Scottish Agricultural College). The information contained will be more comprehensive than that included in the two volumes on terrestrial species, in particular having more on the species' international distribution and status.
- * EN has had a number of new and continuing projects on beetle species under the Species Recovery Programme. For *Carabus intricatus*, Clive Turner has ascertained its needs and is being assisted by staff of the Dartmoor National Park in searching for additional sites for it. Tony Warne has carried out a survey of sites for *Paracymus aeneus* (Germar) and found it only at its original location in Hampshire. Jonathon Guest has continued work on *Hydrochara caraboides* (Linnaeus) in Cheshire, now under the European "Life" project, surveying more of the 100 or so ponds on the farm on which it occurs and is starting to elucidate its breeding ecology, as is Jonty Denton for *Graphoderus zonatus* (Hoppe) in Hampshire. The latter

species has benefitted considerably from the cleaning out of its pond by the Ministry of Defence. Finally, Alan Stewart is surveying for *Phosphaenus hemipterus* (Goeze) and is trying to ascertain the species' ecology and needs.

- * EN also commissioned Peter Hammond of the Natural History Museum to look at the true status of beetle species thought to be endemic to the British Isles (Hammond, P.M. 1996 unpublished. *A taxonomic review of possibly endemic British non-marine invertebrates*. Natural History Museum, London). Truly endemic species are obviously conservation priorities. Only two species - *Psylliodes luridipennis* and *Cathormiocerus britannicus* Blair - are considered to be promising candidates for truly endemic British species, and a few others are weak candidates. Species such as *Aglyptinus agathidioides* Blair, *Phyconoma immigrans* Easton and *Syagrius intrudens* Waterhouse were concluded to be imports from overseas while some other supposed endemics were concluded not to be true species, such as *Thecturota williamsi* (Bernhauer) and *Dropephylla grandiloqua* (Luze), which are synonymous with other European species and *Longitarsus bearei* Kevan, which is just an aberrant form of *L. pratensis* (Panzer).
- * EN's Veteran Trees Project, part of a partnership initiative with English Heritage, The Countryside Commission, The Forest Authority and the National Trust and aimed at promoting the sympathetic management of very old trees for wildlife, is to be officially launched in November at Windsor Park. This is to recognise the value of Britain's foremost site for the old forest fauna and the Crown Estate's recent excellent conservation work, which was sadly eclipsed by bad publicity over the felling of part of Queen Anne's Ride last year.
- * EN recently won both a Public Inquiry and successfully survived a Judicial Review over the declaration of Star Pit at Dogsthorpe on the basis of its beetle and other invertebrate fauna. The old clay pit had many small pools, some of slightly brackish water and has an amazing water beetle fauna of both scarce fenland and halophile species sharing the same water body, together with a number of bare ground species such as *Brachinus crepitans* (Linnaeus), right at their northern limit. Unfortunately, the brick-pit is now filling with deeper water, and although the significant fauna has been shown still to survive, there is an urgent need for positive management of the water levels there.
- * For Scottish Natural Heritage (SNH), Andrew Godfrey has undertaken a survey of potential sites for the weevil *Procas granulicollis* Walton, a species considered subjectively by Peter Hammond (above) as a weak but real candidate for British endemism. English Nature has recently worked on a management plan for a Local Nature Reserve in Tyneside to encourage and monitor this species. SNH with Leeds University, is looking at *Ceutorhynchus insularis* Dieckmann on St Kilda, with a view to undertaking chemical taxonomy to determine its relationship with other Scurvy Grass feeding species, in particular with *C. contractus* var. *pallipes* Crotch on Lundy, with which it used to be confused.
- * SNH and the Scottish Environmental Protection Agency are doing a survey of the beetle and fly faunas of shingle banks along the Tweed, Nith, Spey and Carron, being undertaken by Mick Eyre (Entomological Monitoring Services) and Derek Lott, in order to characterise the fauna in relation to habitat. The Environment Agency, EN, and the Countryside Council for Wales (CCW) intend to do something similar next year in England and Wales. SNH is also undertaking monitoring of the colonization of newly created pine forest by the wood ants, and noting their myrmecophilous beetles.
- * SNH is also contracting data extraction of Scottish Red Data Book beetle species from specimens in the Royal Scottish and Hunterian Museums. This follows up their work last

year extracting similar data from the Natural History Museum which produced some very significant records.

- * CCW is continuing its strategic survey of the saproxylic beetle fauna of Welsh parklands, in partnership with Cardiff and Liverpool Museums. The study is now concentrating on intensive sampling at four of the best sites in Wales, at Dinefwr and Llanover Parks by Brian Levy and Mark Pavett at Cardiff, and Chirk and Powis Castle Parks by Steve Judd at Liverpool. This important study is building on three years of more extensive parkland survey, in part carried out by Peter Hammond at the Natural History Museum.
- * Finally, the BBC is currently making a David Attenborough Wildlife on One special on British Beetles, which will include a conservation message. Filming was under way in Summer 1996 with myself, Dave Hemingway and Chris Timmins advising, to go out on air in 1997.

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R. S. Key

Review

Longhorn beetles: illustrated key to the Cerambycidae and Vesperidae of Europe by Ulrich Bense. Josef Margraf, Germany. 1995. 512 pp. Price (publisher's information) approx. £25 paperback; £35 hardback, from various suppliers including CAB International, Oxford.

This is the second title from Margraf dealing with the identification and geographical distribution of the Coleoptera of Europe, in this case covering longhorn beetles, except the Dorcadionini. Like the earlier work on Carabidae the text is in German and English, having been revised by Richard A. Jones.

The introduction, which includes some colour photographs, discusses taxonomy, bionomics, economic considerations, and nature conservation issues. I would have liked to see a little more emphasis placed on the last topic. The broad impact of land-use change on the British cerambycid fauna is, in terms of its composition, perhaps not quite so marked as Bense suggests, with only four species extinctions in post-glacial time. One of these, *Cerambyx cerdo* Linnaeus, dates from the Bronze Age, although a male was observed in the New Forest in 1966. The book covers a wide area of Europe, east to the Black Sea and including Finland, as well as major islands, and all of the north shore countries of the Mediterranean subregion.

The keys to families, subfamilies and genera are followed by the species keys and accompanying maps, whilst over 130 well-executed line drawings, many of which are original, highlight distinguishing features of the beetles. I tested the keys at random and generally experienced no difficulties, although workers with interests in south-east European *Morinus* Brullé may find them uncooperative. The individual map dots appear rather large in proportion to the map size, the author pointing out that they provide nothing more than an indication of range. Even for smaller countries this works well, the dots managing to convey the very small number of Welsh records of *Tetropium gabrielii* Weise and the Worcestershire population of *Trinophyllum cribratum* Bates. Each species is described briefly, and much useful detail on biology, periodicity and host plants is provided. I was interested to discover, for example, that

the larvae of *Pseudovadonia livida* (Fabricius) consume the mycelia of the fungus *Marasmius oreades* ('Fairy Ring Toadstool').

British Coleopterists will find themselves needing to cope with numerous nomenclatural changes to their now outdated checklists, many of these names having been in wider European use for years. Those which should be employed, include *Dinoptera collaris* (Linnaeus), and a confirmed reclassification of *Leptura* auctt. Brit. as *Pseudovadonia livida* (Fabricius), *Anoplodera sexguttata* (Fabricius), *Lepturobosca virens* (Linnaeus), *Anastrangalia sanguinolenta* (Linnaeus), *Corymbia scutellata* (Fabricius), *C. rubra* (Linnaeus), *Leptura maculata* Poda, *L. aurulenta* Fabricius, *Stenurella nigra* (Linnaeus), *S. bifasciata* (Müller) and *S. melanura* (Linnaeus). *Arhopalus fesus* (Mulsant) is employed in favour of *A. tristis* (Fabricius). The comparative survey of genera, on page 472, essentially decade by decade, reflects the wide degree of agreement current between European taxonomists. Bense has made a thorough trawl of their work, and the bibliography extends to over 700 references.

Although perfection in a work of this nature is more than one can expect, typographical errors are almost non-existent. The omission of *Callimoxys gracilis* (Brullé) (which, incidentally, definitely breeds in sun-dried oak wood) and *Leptura thoracica* Creutzer from Slovakia, *Trichoferus griseus* (Fabricius) from the Czech Republic, the suggestion that *Lepturobosca virens* (Linnaeus) is extinct in England, the use of *Syringia* for *Syringa*, *Anchusa barrelierii* for what is now *Cynoglottis barrelierii*, and *Populus thevestina* for *P. nigra*, may be regarded as relatively minor aberrations. *Amygdalis* (rather than *Amygdalus*) is raised to generic level, a departure from *Flora Europaea* increasingly employed in Europe. British workers will be hard pressed, however, to explain their apparent loss of *Leipopus nebulosus* (Linnaeus). Only since this work appeared, has it been recognised that *Morinus* Brullé, 1832, has priority over *Morimus* Serville, 1835; Bense even provides an addendum to cope with recent taxonomic nuance. There is no doubt that many species (e.g. *Prionus besicanus* Fairmaire, *Deilus fugax* (Olivier)) remain under-recorded in the Balkan and panonic areas and Bense's work should stimulate greater interest in the European fauna generally. Many of the maps are of considerable intrinsic interest in their own right, and if the series continues, one hopes that the publishers might be persuaded to issue transparent overlays for an enlarged master map, showing environmental and climatic parameters.

The author and publishers should be congratulated for providing such an admirably detailed compendium, which is unreservedly commended to British coleopterists as well as students of natural and environmental science.

P. F. Whitehead

Book Notice

An Atlas of Oxfordshire Coleoptera: Cantharidae by J.M. Campbell. Occasional Paper No. 18, Oxfordshire Biological Records Centre, 1995. 19 pp., A4 staple-bound. Available from: Oxfordshire Museums Store, Witney Road, Standlake, Oxon OX8 7QG. Price £1 + 38p P&P.

This is a compilation of tetrad dot maps covering all of Oxfordshire's Cantharidae. Records are shown in three date categories: pre-1960, 1960-79, and 1980-1995. Oxfordshire is taken as the modern county and so the maps cover the north-western part of VC22 (Berkshire) as well as VC 23. For each species map there is also a brief statement on the local status and habitat associations and a breakdown of the recent records by month of occurrence. The county has 33 of the 40 British species in the family.

K. N. A. Alexander

Literature Notices

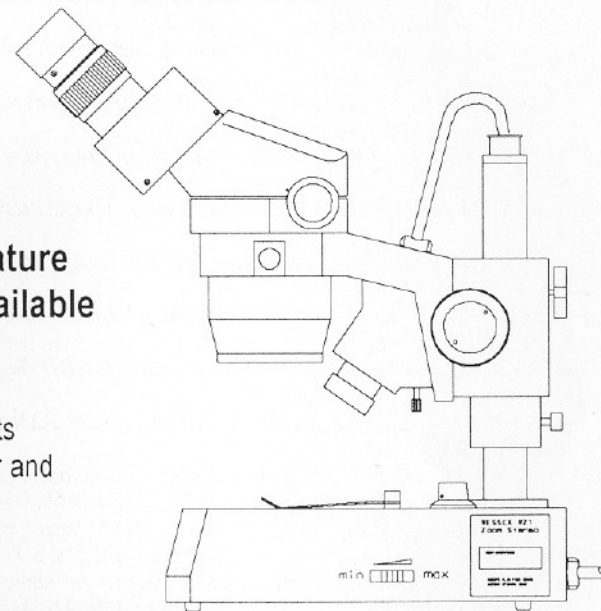
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