

## Western Palaearctic Oedicephalini and Phaeogenini (Hymenoptera: Ichneumonidae, Ichneumoninae) in the National Museums of Scotland, with distributional data including 28 species new to Britain, rearing records, and descriptions of two new species of *Aethecerus* Wesmael and one of *Diadromus* Wesmael

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### Synopsis

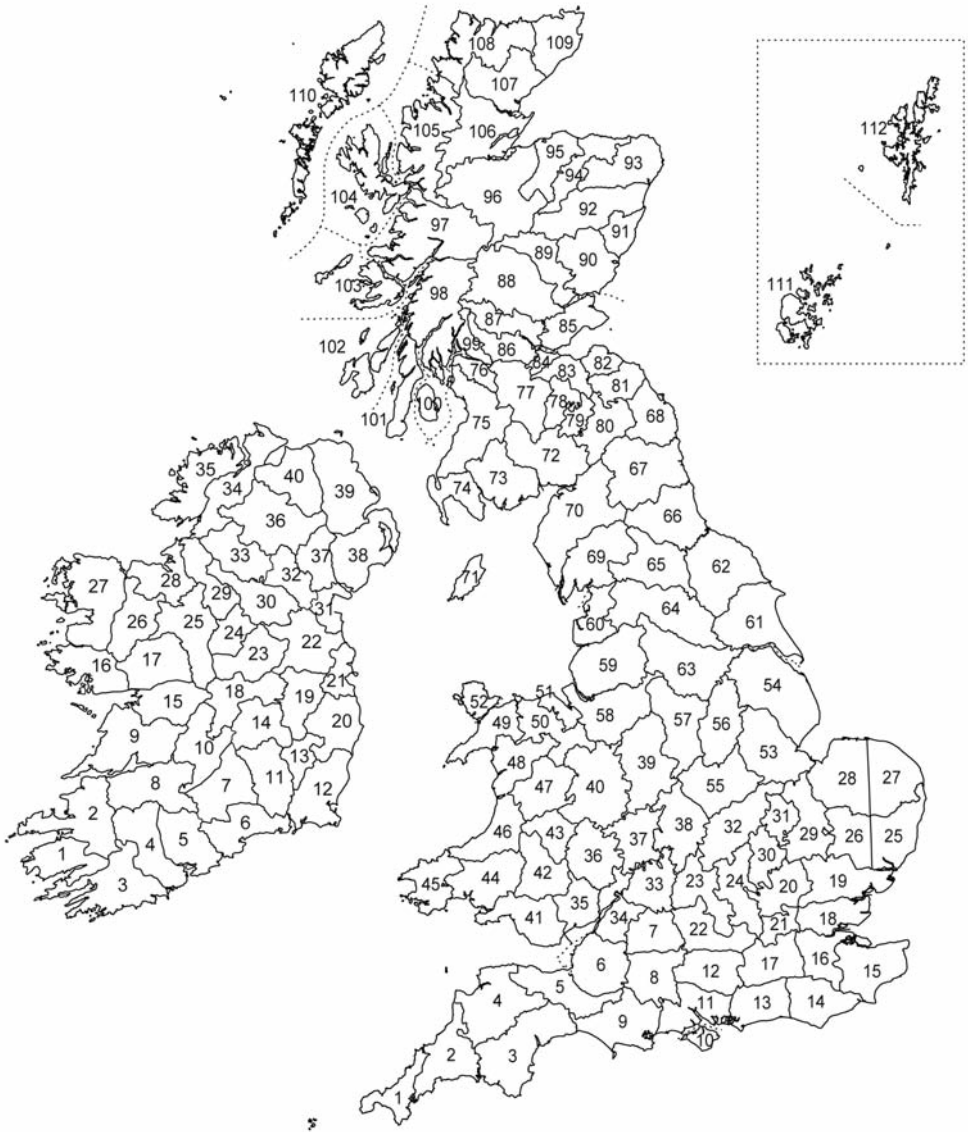
An account is given of approximately 3,250 western Palaearctic specimens, comprising 110 determined species, of the tribes Oedicephalini and Phaeogenini in the National Museums of Scotland. Distributional and phenological data are given for all species, and rearing records are provided for about 50, although not always with the host's identity fully clear. Twenty eight species are newly recorded from Britain, of which *Aethecerus horstmanni* **sp. nov.**, *Aethecerus ruberpedatus* **sp. nov.** and *Diadromus nitidigaster* **sp. nov.** are described and figured. *Tycherus histrio* (Wesmael, 1848) **sp. rev.** is raised from synonymy with *Tycherus ischiomelinus* (Gravenhorst, 1829); *Dicaelotus schmiedeknechti* **nom. nov.** is provided for *Dicaelotus ruficornis* (Schmiedeknecht, 1903) *nec* (Ashmead, 1890); *Aethecerus subuliferus* (Holmgren, 1890) is proposed as a **comb. nov.**; and *Phaeogenes nigridens* Wesmael, 1848, is proposed as a **comb. rev.**

**Keywords:** Ichneumonidae, Ichneumoninae, Oedicephalini, Phaeogenini, parasitoids, taxonomy, phenology, distribution, hosts, Lepidoptera, British Isles.

### Introduction

The National Museums of Scotland (NMS) has an extensive collection of western Palaearctic Ichneumonoidea which is mostly of fairly recent origin (since about 1980) and has a reasonably good standard of specimen preparation and data. Much of the collection has been assembled as a result of Malaise trapping and other collecting in prime U.K. sites and also in rich sites in southern France, but one of the most important aspects of the collection is the very large quantity of reared material that is present. Because of this, and the size of the collections, it is well-used by specialists of particular groups, who in many cases have also been willing to become involved in its curation. This has firstly ensured a high accuracy of determination of the covered groups, so that the collection can serve as a reliable reference source; secondly ensured that the collection as a whole participates on a broad front in taxonomic research, including the description of many new species from it; and, finally, made it possible to output essentially novel data on the spatial and seasonal distributions, and in many cases also the host

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**Fig. 1.** Vice counties of Great Britain and of Ireland. The Irish series is prefixed 'H' when referred to in the text.

associations, of these very poorly known insects in the course of providing outline catalogues of parts of the collection (e.g. Schwarz & Shaw, 1998; 1999; 2000; 2010; 2011; Shaw & Kasparyan, 2003; 2005).

The present contribution covers the Phaeogenini, a relatively large tribe of the smallest species of the extensive ichneumonid subfamily Ichneumoninae, and also the related tribe Oedicephalini (represented in the collection by just one species). On the whole Phaeogenini parasitise their microlepidopterous hosts after cocoon

formation, with the result that they are not easily reared from known hosts. Nevertheless we are able to present this biological information for a considerable number of species, for many of which no host has previously been recorded. Altogether this account covers about 3,250 specimens in the collection, comprising 110 species of which 94 (possibly 96) are represented by British material, 28 species being recorded from Britain for the first time. Taxonomic changes involving four species are proposed, and two species of *Aethecerus* Wesmael and one of *Diadromus* Wesmael are described as new.

The illustrations were created through an auto assembly process with analySIS soft imaging system and combineZM. Apart from simple cases determined by MRS, the material was determined or checked by ED.

As in previous cases (see Schwarz & Shaw, 1998 for the fullest account), distribution records for more than three (British) sites are generally condensed to just Vice County (V.C.) numbers (see Fig. 1), but if only 3 or fewer localities can be given, or if the records are judged to merit a fuller treatment for any reason, the data are given in full. The number of specimens of a given species in the collection is scored as 'several' for 4–10; 'many' for 11–25; and 'numerous' for more than that. Host records are given quantitatively, in appropriate cases the number of host mortalities being indicated by a number in brackets following each host name. All host records relate to Lepidoptera. Summaries of dates of capture are given, but they are difficult to interpret in terms of voltinism because females of many species overwinter as adults. A checklist of British species, nomenclaturally compatible with this paper at the time of going to press, is available at <http://www.nhm.ac.uk/resources-rx/files/ichneumonidae-checklist-for-web-27752.pdf>

## Material in NMS and taxonomic notes

### OEDICEPHALINI

*Notosemus bohemani* (Wesmael, 1855)

**England:** 1 ♀, Devon, Axminster, SY312972 (V.C. 3), 24.viii.1983 (*E. C. Pelham-Clinton*); 1 ♀, Cumbria, Witherslack, SD4588 (V.C. 69), 13.vii.1989 (*M. R. Shaw*).

### PHAEOPENINI

*AETHECERUS* Wesmael, 1845

A few male specimens of this genus remain unidentified.

*Aethecerus discolor* Wesmael, 1845

Many specimens. **England:** V.C.s 7, 23, 24, 58, 62. **Scotland:** V.C.s 87, 99, 101. Specimens collected from iv–v and (vi)vii–x.

*Aethecerus dispar* Wesmael, 1845

Many specimens. **England:** V.C.s 22, 23, 28, 29, 58. **Scotland:** V.C.s 89, 92, 99. **France:** Dordogne. Specimens collected from vi–viii(ix). 1 ♂ reared 8.vii.1997 from one of two apparently identical Microlepidoptera pupae found in an old *Typha* stem, the other producing *Gelechia sororcullella* (Hübner) (Gelechiidae) (*M. J. Morgan*).

*Aethecerus foveolatus* Gregor, 1940

This species is here recorded from Britain for the first time. Several specimens. **England:** V.C.s 17, 23, 27, 28, 29. **Scotland:** V.C.s 92, 99. Specimens collected in v/vii and from vii–ix(x).

*Aethecerus horstmanni* sp. nov.

(Figs 2–8)

Holotype ♀, [England] 'Barrow Farm Fen, Oxon. SU 468976 Malaise Trap, 7.8–14.11.1990, K. Porter NMSZ 1994.010' (in NMS).

Paratypes (5 ♀). **England:** 1 ♀, Richmond Park, Surrey (V.C. 17), 18.viii.1983, fogged from mature *Quercus* canopy (N. E. Stork) (in NMS). **Scotland:** 1 ♀, Paddockmuir Wood, Errol, Perthshire (V.C. 89), 24.ix–2.x.1987 (D. Phillips) (in NMS); 1 ♀, same data but 6.vii–13.vii.1989 (in ZSM); 1 ♀, Glenelg, Inverness-shire (V.C. 97), no date (P. Cameron) (in NMS). **Poland:** 1 ♀, Białowieca Urwald, *Quercus robur*, 30.viii.2001 (A. Floren) (in ZSM).

*Female.* Body length 3.8–5.5 mm. Head (Figs 2, 5, 6): shining. Supra-antennal fovea weakly concave with fine transverse striae. Frons shining, scarcely punctate. Face short, shining, scarcely punctate. Supraclypeal area a little wider than high, clearly separated from clypeus by a deep groove, weakly convex and scarcely punctate. Clypeus shining, scarcely punctate, distinctly impressed apically with a small notch centrally. Mandible slender, lower tooth distinctly shorter than upper tooth. Malar space shorter than base of mandible, with a distinct groove between eye and mandible. Occiput broad, shining, scarcely punctate. Temple broad, shining, scarcely punctate. Genal carina deeply excavate (Fig. 6). Flagellum (Figs 2, 3, 5) short, with 18–19 segments, flagellar segments 1–4 longer than broad. Scape without basal swelling. Thorax (Figs 2, 3): pronotal collar long. Mesoscutum smoothly shining, scarcely punctate. Notaulus very short. Scutellum with small lateral carinae, smoothly shining, scarcely punctate. Postscutellum smooth and punctate. Pronotum smoothly shining, scarcely punctate. Mesopleuron shining, with finely transverse carinulae, close together. Mesosternum with the same sculpture. Speculum shining. Sternaulus impressed on anterior third of mesopleuron. Propodeum (Figs 2, 3, 4, 7): coriaceous. Area basalis indistinct. Area superomedia longer than broad, hind carina sometimes very weak, coriaceous or smooth. Costula in front part of area superomedia. Area petiolaris and area postero-externa not separated, rugose, in middle sometimes with weak transverse carinulae. Area supero-externa rugose. Area dentipara elongate, shining and weakly rugose. Area spiracularis rugose. Spiracle small. Area metapleurals weakly rugose and punctate. Area coxalis shining, weakly rugose and widely punctate. Wings: areolet pentagonal. End of cubitus absent. Nervellus postfurcal. Discoidella very weak. Legs (Figs 2, 8): shining, weakly punctate. Coxae smooth and weakly punctate. Hind coxa with a very small tuberculum (Fig. 8). Tibiae and tarsi more dull. Metasoma (Figs 2, 3, 4): shining, partially very finely coriaceous and punctate. Postpetiole shining, sometimes with very fine carinulae. Thyridium large and distinct, well removed from base of metasomal tergite 2, space between thyridia broad. Tergite 2 about as wide as long. Tergites 3–7 transverse. Hind margins of tergites 2–6 with narrow, smooth, shiny margins.

Colour (Figs 2–8): black. Mandibles reddish. Palpi yellowish. Flagellum reddish, scapus black. Pronotal collar more or less reddish. Tegulae and base of wings yellowish. Legs reddish. Coxae brownish. Most parts of hind femora brownish, also apical part of hind tibiae. Tergites 2–4 brownish, front and hind margins broader reddish yellow, inclusive of thyridium. Tergites 5–7 blackish, sometimes hind margins narrowly reddish yellow.

*Male.* Unknown

**Differential diagnosis**

*Aethecerus horstmanni* sp. nov. ♀ is separated from *Aethecerus ruberpedatus* sp. nov. ♀ by the following combination of characters: body distinctly smooth (in *A. ruberpedatus*, mesoscutum and propodeum dull, coriaceous, area basalis distinct and area superomedia dull, long and slender). Metasomal tergites smoothly shining and clearly punctate. Anellus black, rest of flagellum completely reddish (in *A. ruberpedatus*, only basal third of flagellum red). Coxae dark brownish (in *A. ruberpedatus*, legs completely red). Metasomal tergites extensively brownish (in *Aethecerus tatoi* Selfa & Diller, for example, metasomal tergites completely dull, coriaceous and not punctate).

**Etymology.** The species is dedicated in gratitude and respect to Klaus Horstmann, whose untimely death on 30 July 2013 robbed us of a good friend and colleague and a greatly gifted and productive taxonomist whose contribution to ichneumonology was immense.

***Aethecerus longulus*** Wesmael, 1845

Numerous specimens. **England:** V.C.s 22, 23, 27, 29, 64. **France:** Dordogne. Specimens collected from vi–ix, in fens.

***Aethecerus nitidus*** Wesmael, 1845

Many specimens. **England:** V.C.s 7, 8, 22, 28. **Scotland:** V.C.s 92, 97, 99. **France:** Dordogne. Specimens collected from v–viii.

***Aethecerus placidus*** Wesmael, 1845

Several specimens. **England:** V.C.s 15, 28, 29. **Scotland:** V.C. 96. Specimens collected from vii–ix.

***Aethecerus porcellus*** Holmgren, 1890

This species is here recorded from Britain for the first time. Numerous specimens. **England:** V.C.s 22, 23, 29, 58. **Wales:** V.C. 52. **Scotland:** V.C.s 81, 87, 89, 92, 96, 99, 101. **France:** Vaucluse. Specimens collected from (v)vi–vii(viii) and in ix. 1 ♀ reared 20.ix.1985 from an unidentified Microlepidoptera pupa coll. on *Juniperus communis* 9.viii.1985 (*M. R. Shaw*).

***Aethecerus ruberpedatus* sp. nov.**

(Figs 9–14)

Holotype ♀, [**England**] 'Frilford Heath, Oxon. SU 442986 Malaise Trap, 25.5–18.6.1991, K. Porter NMSZ 1994. 010' (in NMS).

Paratypes (8 ♀, 1 ♂). **England:** 7 ♀, Frilford Heath, Oxfordshire, SU 442986 Malaise Trap, 18.vi–12.vii.1991 (*K. Porter/NCC*) (4 ♀ NMS; 3 ♀ ZSM); 1 ♀, Woolhampton, Berkshire, in reed bed, 20.iv.1984 (*M. R. Shaw*) (NMS); 1 ♂, Frilford Heath, Oxon. SU442986 Malaise Trap, 12.vii–1.viii.1991 (*K. Porter/NCC*) (NMS).

*Female.* Body length 3.9–4.5 mm. Head (Figs 9–12): shining. Supra-antennal fovea strongly concave. Frons shining, very finely coriaceous. Face short, finely coriaceous and scarcely punctate. Supraclypeal area quadrate, clearly separated from clypeus by a rather deep groove, weakly convex and very finely coriaceous with few punctures. Clypeus shining with small punctures. Impressed apically above this is a less distinct ridge with a small notch centrally. Mandible slender, lower tooth distinctly shorter than upper tooth. Malar space as long as base of mandible. Occiput broad, shining, scarcely punctured. Temple broad, shining, very finely coriaceous. Genal carina weakly excavate. Flagellum (Figs 9–11) relatively short with 18–20 segments, basal segments of flagellum more slender, flagellar segments 1–10 longer than broad, 11–18(19–20) as long as broad. Scape without dorsal basal swelling. Thorax (Figs 9, 10): pronotal collar long. Mesoscutum coriaceous, dull and punctate, hind corner smoothly shining. Notaulus weak. Scutellum with lateral carinae, smoothly shining, punctate, lateral and hind parts with fine longitudinal striae. Postscutellum punctate. Pronotum smoothly shining, ventrally and laterally with strong striae. Mesopleuron and mesosternum coriaceous and punctate, a small part below subtegular ridge with fine transverse striae. Sternaulus impressed on anterior third of mesopleuron. Speculum shining, punctate. Prepectal carina weak. Propleuron shining, punctate. Propodeum (Figs 10, 13, 14): coriaceous. Area basalis distinct and transverse. Area superomedia long and slender with fine transverse striae. Costula in front part of area superomedia. Area petiolaris and area postero-externa not separate, rugose, in middle more transverse, strigose. Area superoexterna coriaceous-rugose. Area dentipara elongate and rugose. Area spiracularis rugose. Spiracle small, slightly oval. Area metapleurals rugose and widely punctate. Area coxalis rugose. Wings: areolet pentagonal. Second intercubitus weak. End of cubitus absent. Nervellus postfurcal. Discoidella absent. Legs: shining. Front coxa smooth. Middle coxa smooth, dorsally finely coriaceous. Hind coxa smooth, partially coriaceous and punctate, unarmed. Trochanter and trochantelli smooth and weakly punctate. Femora and tibiae smooth and sparsely punctate. Tarsi coriaceous. Metasoma (Figs 9, 10, 13, 14): very finely coriaceous. Postpetiole with longitudinal striae. Tergite 2 longer than broad, dull. Thyridium large and distinct, well removed from base of tergite, space between thyridiae broad. Tergite 3 more or less transverse, dull. Tergites 4–7 transverse, shining, partially very finely coriaceous.



**Figs 2–8.** *Aethecerus horstmanni* sp. nov., ♀. 2, habitus (except wings), lateral view; 3, habitus, dorsal view; 4, propodeum and basal tergites of metasoma, dorsal view; 5, head and basal part of antenna, facial view; 6, head, antero-latero-ventral view, to show genal carina (arrowed); 7, posterior part of propodeum, postero-dorsal view; 8, hind coxa, lateral view, to show tubercle (arrowed). (2, 3, 8 holotype; 4–6 paratype.)



**Figs 9–14.** *Aethecerus ruberpedatus* sp. nov., ♀. 9, habitus, lateral view; 10, habitus, dorsal view; 11, head, lateral view; 12, head, ventro-facial view; 13, propodeum and basal part of metasoma, dorsal view; 14, propodeum and metasoma, dorsal view. (9, 10 holotype; 11–14 paratype.)

Colour (Figs 9–14): black. Clypeus dark brown to reddish. Mandible red. Basal third of flagellum red, remainder blackish. Pronotal collar reddish. Tegula yellowish. Legs red. Apex of hind tibia sometimes weakly darker. Base of petiole and hind margin of postpetiole reddish. Tergites 2 and 3 red. Tergite 4 sometimes narrowly reddish on base and with reddish hind margin. Tergites 5–7 with weakly reddish hind margins. Tergites 2 and 3 sometimes with a brownish band or sometimes this has a few breaks in middle.

*Male*. Body length 4.8 mm. Similar to ♀ in general sculpture. Flagellum with 21 segments. Tyloids on flagellar segments 6–9. Scape with a weak, dorsal basal swelling. Thyridium very large and distinct, well removed from base of tergite 2, space between thyridiae small. Tergites 2–4 coriaceous, dull. Flagellum dark brown. Pedicel and postanellus ventrally reddish. Clypeus black. Base of hind coxa weakly brownish. Apex of hind femur, also narrowly base and apex of hind tibia, brownish. Petiole, postpetiole and mostly metasomal tergites blackish. Thyridium dorsally and apices of tergites 2–4 reddish. Tergites 5–7 with narrow reddish hind margins.

#### Differential diagnosis

*Aethecerus ruberpedatus* sp. nov. ♀ is separated from other *Aethecerus* species by the following combination of characters: the small and slim body; shining and very finely coriaceous frons; relatively short flagellum, with red base, without white ring; legs red or predominantly red; postpetiole with longitudinal striae; base of petiole and apical margin of postpetiole reddish; tergites mostly finely coriaceous; tergites 2–3 red, sometimes with a more or less broken brownish band.

**Etyymology**. The specific epithet refers to the red legs.

#### *Aethecerus rugifrons* Holmgren, 1890

This species is here recorded from Britain for the first time. **England**: 1 ♂, Norfolk, Santon Downham, TL818883 (V.C. 28), 16–25.vii.1983 (*J. Field*). **Scotland**: 1 ♂, Inverness-shire, Rothiemurchus, NN883055 (V.C. 96), 19.vi–10.vii.1985 (*M. R. Shaw*).

#### *Aethecerus subuliferus* (Holmgren, 1890) **comb. rev.**

Hellén (1951) had correctly placed this species in *Aethecerus* Wesmael, 1845, but subsequent authors (e.g. Yu & Horstmann, 1997) retained it in *Phaeogenes* Wesmael, 1845, the genus into which it had originally been described.

This species is here recorded from Britain for the first time. **England**: 1 ♀, Oxfordshire, Spartum Fen, SP654015 (V.C. 23), 12.viii–20.ix.1988 (*K. Porter/NCC*); 1 ♀, Norfolk, Barton Turf (V.C. 27), 1–6.vii.1984 (*E. C. Pelham-Clinton*); 1 ♀, Cumbria, Roanhead, SD195757 [this is not traceable on the O.S 1:50,000 map, but there is a Roanland near SD195857] (V.C. 69), dunes, ex pupa of ?*Epinotia cruciana* (Linnaeus) (Tortricidae) on *Salix repens*, coll. 13.vii.1987, em. 22.vii.1981 (*R. P. Knill-Jones*).

#### *Baeosemus mitigosus* (Gravenhorst, 1829)

This species is here reliably recorded from Britain for the first time; it had not been included by Fitton *et al.* (1978) and, despite its appearance in early lists, Perkins (1959) evidently did not regard it as British, although he certainly knew the species from a Swedish specimen in BMNH determined by him in 1950 (G. Broad, pers. comm.). **England**: 1 ♂, Berkshire, Windsor Forest, SU945705 (V.C. 22), 27.vii–11.viii.1992 (*K. Porter/NCC*). **Scotland**: 2 ♀, 1 ♂, Isle of Coll, Cornaigbeg (V.C. 103), ex pupae of *Eana penziana* (Thunberg) (Tortricidae), coll. 15.vii.1985, em. 4–16.viii.1985 (*K. P. Bland*); 1 ♂, Inverness-shire, Loch Garten (V.C. 96), viii.1982 (*J. A. Owen*).

#### *Centeterus confector* (Gravenhorst, 1829)

**England**: 2 ♀, Oxfordshire, Dry Sandford Pit, SU468995 (V.C. 22), 10.viii–10.ix.1990 (*K. Porter/NCC*); 1 ♀, Cambridgeshire, Chippenham Fen, TL650693 (V.C. 29), 16–24.vi.1983 (*J. Field*).

#### *Centeterus major* Wesmael, 1845

Several specimens. **France**: Dordogne, Lot-et-Garonne, Vaucluse. Specimens collected from vii–ix.



***Centeterus nigricornis*** Thomson, 1891

**France:** 1 ♀, Lot-et-Garonne, Bernac, 12–25.vii.1993 (*R. R. Askew*); 1 ♂, Var, Nans-les-Pins, 9.vii.1997 (*M. R. Shaw*). **Turkey:** 1 ♀, Sivas, Cumhuriyet University campus, 7–9.vi.1999 (*M. R. Shaw*).

***Centeterus rubiginosus*** (Gmelin, 1790)

Numerous specimens. **England:** V.C.s 3, 6, 12, 22, 23, 27, 29. **Wales:** V.C.s 45, 46, 48, 52. **Isle of Man:** V.C. 71. **Scotland:** V.C.s 72, 73, 83, 88, 90, 97, 99, 101, 102, 105, 108. Specimens collected v–ix, but mostly around vii. Reared from *Glyphipterix thrasonella* (Scopoli) (Glyphipterigidae) on *Juncus acutiflorus* (2) (*R. J. Heckford*) and from *Armeria* roots containing *Synansphecica muscaeformis* (Esper) (Sesiidae) (1) (*B. Goater*), but in neither case are host remains present.

***Colpognathus celerator*** (Gravenhorst, 1807)

Numerous specimens. **England:** V.C.s 3, 6, 7, 23, 24, 28, 29. **Wales:** V.C. 52. **Isle of Man:** V.C. 71. **Scotland:** V.C.s 79, 96. **France:** Dordogne, Puy-de-Dôme, Alpes-de-Haute-Provence. Specimens collected from vi–viii, additionally 1 ♀ in v. 1 ♂ reared 21.v.1998 from a prepupal mummy of an unidentified crambine collected 27.iv.1998 (see *Shaw & Bennett*, 2001). Males are much more often collected than females.

***Colpognathus divisus*** Thomson, 1891

Numerous specimens. **England:** V.C.s 7, 14, 20, 22, 23, 29, 69. **Wales:** V.C.s 35, 52. **Scotland:** V.C.s 75, 77, 85, 96, 108. **France:** Dordogne. Specimens collected vi–viii, additional females once each in iii and v. Females are much less commonly collected than males.

***Diadromus albinotatus*** (Gravenhorst, 1829)

**Netherlands:** 1 ♀, 1 ♂, Gelderland, Droge, ex *Ypsolopha sylvella* (Linnaeus) (Ypsolophidae), coll. 6.vii.1977, em. vii.1977 (*K. P. Bland*).

***Diadromus arrisor*** Wesmael, 1845

**Hungary:** 1 ♀, Vesprém, Deveçseri Széki, 20.v.2001 (*M. R. Shaw*).

***Diadromus collaris*** (Gravenhorst, 1829)

Numerous specimens. **England:** V.C.s 7, 12, 15, 16, 21, 22, 23, 24, 26, 27, 29. **Scotland:** V.C.s 81, 82, 83. **France:** Dordogne, Vaucluse. Specimens collected from (v)vi–xii; additionally one female found in leaf litter in xii (*E. S. Bradford*). Reared from pupae of unidentified Plutellidae collected on *Matthiola* (3) (*K. P. Bland*), *Salvia* (3) (*A. E. Whittington*) and *Chenopodium* (3) (*R. R. Askew*, *M. R. Shaw*). In the last two cases Brassicaceae were probably adjacent. Also from an evident plutellid with no plant indicated (1). This is a well-known parasitoid of *Plutella xylostella* (Linnaeus) and, although none of the above was positively identified, that was almost certainly the host in at least the majority of cases.

***Diadromus heteroneurus*** Homgren, 1890

**England:** 4 ♀, 2 ♂ Oxfordshire, Wychwood Forest, SP342167 (V.C. 23), dates in the ranges (iv)v–vi and vii–viii, 1989–1990 (*K. Porter/NCC*). **Scotland:** 14 ♀, 9 ♂, East Lothian, Gifford, Bara Wood (V.C. 82), ex *Ypsolopha vittella* (Linnaeus) (Ypsolophidae) cocoons coll. in *Ulmus glabra* bark 2 and 27.vii.1983, em. 29.vii–21.viii.1983 (*M. R. Shaw*); 1 ♀, Perthshire, Keltneyburn, Balchroich Meadow (V.C. 88) 16.v.1985 (*M. R. Shaw*).

***Diadromus intermedius*** Wesmael, 1845

**Italy:** Sudtirolo, Burgeis, 1 ♂ ex indet. ?*Ypsolopha* sp. (Ypsolophidae), elongate cocoon coll. on *Rhamnus* or *Fragula* 6–11.vii.2004, em. 12.vii.2004 (*M. R. Shaw*).

***Diadromus nitidigaster* sp. nov.**

(Figs 15–17)

Holotype ♀, 'Richmond Park, Surrey, Quercus. Fog 21 Tree 7, 25.7.1984, N. E. Stork, NMSZ 1988.003' (in NMS).

Paratypes (3 ♀). **England:** 1 ♀, Richmond Park, Surrey (V.C. 17), 25.vii.1984, fogged from mature *Quercus* canopy (*N. E. Stork*) (in NMS). **Norway:** 1 ♀, Ekeby, Telemarkslunden, 19.v–17.vi.1992 (*L. O.*



**Figs 15–17.** *Diadromus nitidigaster* sp. nov., ♀. 15, habitus, lateral view; 16, habitus, dorsal view; 17, head, ventro-facial view. (15, 16 holotype; 17 paratype).

*Hansen & G. Walberg* (in ZSM). **Netherlands:** 1 ♀, Kapellebrug, Zeeland, 24.v.2011 (*C. J. Zwakhals*) (in coll. Zwakhals).

*Female.* Body length 6.4–7.7 mm. Head (Figs 15–17): shining. Supra-antennal fovea weakly concave with fine transverse striae, scarcely punctate. Frons shining, punctate with weakly transverse striae. Face short, shining, scarcely punctate. Supraclypeal area longer than broad, clearly separated from clypeus by a deep groove, convex and scarcely punctate. Clypeus shining, convex, scarcely punctate, distinctly impressed apically with a central notch. Mandible slender, lower tooth distinctly shorter than upper tooth. Malar space as long as base of mandible, with a shallow groove between eye and mandible. Occiput broad, shining, punctate. Temple broad, shining, scarcely punctate. Genal carina small, weakly excavate, meeting hypostomal carina in front of base of mandible. Flagellum (Figs 15, 16) short with 26–27 segments, flagellar segments 1–4 longer than broad. Scape without basal swelling. Thorax (Figs

15, 16): pronotal collar short, with a weak groove. Mesoscutum smoothly shining, widely punctate. Front of median lobe of mesoscutum coriaceous and punctate. Notaulus not impressed. Scutellum without lateral carinae, smoothly shining, scarcely punctate. Postscutellum coriaceous. Pronotum smoothly shining, scarcely punctate, ventral part with strong transverse striae. Mesopleuron smoothly shining, scarcely punctate, below speculum with fine transverse striae. Mesosternum smoothly shining, scarcely punctate. Speculum shining. Sternaulus impressed on anterior half of mesopleuron. Prepectus coriaceous. Propodeum (Figs 15, 16): shining. Area basalis distinct. Area superomedia hardly longer than wide, heart-shaped, shining and with irregular striae. Costula in middle of area superomedia. Area petiolaris shining with transverse striae. Area posteroexterna shining with strong diagonal striae. Area superoexterna smoothly shining. Area dentipara shining with irregular striae and weakly rugose. Area spiracularis shining, coriaceous. Spiracle short elliptical. Area metapleuralis shining with weak striae and punctate. Area coxalis shining, weakly rugose and widely punctate. Wings: areolet pentagonal. Nervellus about opposite. Discoidella very weak. Legs: smoothly shining, weakly punctate. Coxae and trochanters smoothly shining and weakly punctate. Hind coxa with a very small transverse carina, sometimes hardly recognizable. Tibia and tarsus more dull. Metasoma (Figs 15, 16): smoothly shining. Postpetiole smoothly shining, sometimes with very fine striae, hardly punctate. Thyridium large and distinct, removed from base of tergite 2, space between thyridia very small or lacking. Tergite 2 about as wide as long, smoothly shining, short base finely coriaceous, behind thyridium sparsely punctate. Tergites 3–7 transverse, smoothly shining and sparsely punctate. Ovipositor well removed from apex.

Colour (Figs 15–17): black. Mandibles slightly reddish. Palpi yellowish. Flagellum reddish, scapus black, segments 1–6 more brownish. Tegula more or less yellowish, base of wings yellowish. Legs reddish. Front and middle coxae, also sometimes trochanter, brownish. Hind coxae black. Most of hind femur dark brownish, also sometimes front and middle femora brownish. Metasomal tergites 2–3 reddish, sometimes tergites 2–3 dorsally weakly brownish and tergite 4 extensively dark brownish. Tergites 5–7 blackish, sometimes hind margins narrowly reddish.

*Male.* Unknown

### Differential diagnosis

*Diadromus nitidigaster* sp. nov. is separated from *Diadromus heteroneurus* Holmgren, 1890, ♀ by the following combination of characters: basal half of short flagellum more brownish (in *D. heteroneurus* flagellum is longer and with a small white dorsal stripe on segments 9–11). Coxae and femora more or less dark brownish or black (legs of *D. heteroneurus* red). Area superomedia hardly longer than broad and heart-shaped (in *D. heteroneurus* the narrow area superomedia distinctly longer than broad and not heart-shaped). Metasomal tergites extensively red, smoothly shining and with very widely spaced punctures (tergites of *D. heteroneurus* black and shining and strongly punctate).

**Etymology.** The name of *Diadromus nitidigaster* sp. nov. refers to the smoothly shining metasoma.

### *Diadromus pulchellus* Wesmael, 1845

This species is here recorded from Britain for the first time. Several specimens. **England:** V.C.s 22, 27, 28, 29. Specimens collected in v/vii and from vii–ix. In BMNH there is a series of 3 ♀, 3 ♂ labelled as reared from the plutellid *Acrolepiopsis assectella* (Zeller), on 'leeks for seed at A. L. Tozer Ltd', Cobham, Surrey (x.1969), det. J. F. Perkins (G. Broad, pers. comm.), but we have not examined the specimens.

### *Diadromus subtilicornis* (Gravenhorst, 1829)

Several specimens. **England:** V.C.s 8, 12, 18, 27. **Scotland:** V.C. 111. Specimens collected in v/vi and viii/ix. Reared from pupae of the plutellids *Eidophasia messingiella* (Fischer von Röslerstamm) on *Cardaria draba* (1) (*A. N. B. Simpson*), *Acrolepiopsis assectella* (Zeller) on *Allium cultivar* (1) (*G. Smith*), and ?*Rhigognostis senilella* (Zetterstedt) on *Hesperis*, vii.1984 (3) (*R. I. Lorimer*). Two further males from V.C. 22 ex *A. assectella* on *Allium cultivar*, coll. viii, em. ix and x (*I. Sims*) are only doubtfully assigned to this species.

***Diadromus troglodytes*** (Gravenhorst, 1829)

Numerous specimens. **England:** V.C.s 7, 15, 17, 23, 36, 69. **Scotland:** V.C.s 72, 77, 86, 87, 89, 98, 99, 101. **Ireland:** 'Newport, Brackloon Wood'. **Poland:** Biebrza. **Denmark:** Sjaelland. Male specimens collected in vii–ix; females from (v)vi–x and, in leaf litter, in xii (*E. S. Bradford*) and ii (*S. I. Baldwin*).

***Diadromus varicolor*** Wesmael, 1845

Several specimens. **England:** V.C. 7. **Wales:** V.C. 49. **Isle of Man:** V.C. 71. **Scotland:** V.C. 101. Specimens collected in v and vii/viii. Reared from a cocoon of ?*Ypsolopha* sp. (*Ypsolophidae*) on unidentified garden shrub, coll. 5.vii.2000, em. 26.vii.2000 (1) (*F. D. Bennett*).

**DIACAELOTUS** Wesmael, 1845

Several male specimens in this genus remain unidentified.

***Dicaelotus cameroni*** Bridgman, 1881

**Scotland:** 1 ♀, Stirlingshire, Mugdock (V.C. 86), 27.viii [no year] (*P. Cameron*); 1 ♀, 1 ♂, Easter Ross, Amat, NH4689 (V.C. 106), vi.1989 (*I. MacGowan*). **France:** 1 ♂, Hautes-Alpes, Col du Lautaret, 2000 m, 6–9.vii.2005 (*M. R. Shaw*).

***Dicaelotus erythrostroma*** Wesmael, 1845

**England:** 1 ♂, West Sussex, Midhurst, SU 845225 (V.C. 13), 29.vi–9.vii.1984 (*M. Edwards*); 1 ♂, Norfolk, Santon Downham, TL 818883 (V.C. 28), 29.vi–9.vii.1984 (*J. Field*). **France:** 1 ♀, Vaucluse, Mt Ventoux, 1100 m, 9.vii.1998 (*M. R. Shaw*).

***Dicaelotus inflexus*** Thomson, 1891

**Wales:** 2 ♂, Pembrokeshire, Strumble Head (V.C. 45), ex pupae of the tortricid *Lobesia littoralis* (Humphreys & Westwood) on *Armeria maritima*, coll. 1.vi.1972, em. 18.vi.1972 (2) (*T. H. Ford*). **Scotland:** Rum, Kinloch, NM 4099 (V.C. 104), ex pupa of the depressariid *Depressaria daucella* ([Denis & Schiffermüller]) in *Oenanthe* stem, coll. 30.viii.2000 (*K. P. Bland*); 1 ♂, Easter Ross, Amat, NH 4689 (V.C. 106), v.1989 (*I. MacGowan*).

***Dicaelotus montanus*** (De Stefani, 1885)

Several specimens. **France:** Dordogne, Lot-et-Garonne, Hérault. Specimens collected from (v)vi–viii.

***Dicaelotus parvulus*** (Gravenhorst, 1829)

**England:** 3 ♂, Norfolk, Santon Downham, TL 818883 (V.C. 28), 6–20.vii.1985 (*J. Field*). **France:** 1 ♀, Dordogne, St. Marcel du Perigord, 26.vii–10.viii.2007 (*R. R. Askevo*).

***Dicaelotus pictus*** (Schmiedeknecht, 1903)

Several specimens. **England:** V.C.s 3, 7, 17. Specimens collected in v and vii. Reared in v–vi from pupae of *Oecophoridae* collected under dead bark at three sites earlier in the spring and determined as ?*Esperia sulphurella* (Fabricius) (2) (*R. J. Heckford*, *M. S. Parsons*) and as ?*E. sulphurella* or possibly *Oecophora bractella* (Linnaeus) (2) (*R. J. Heckford*). In three cases the tree was recorded as *Quercus*.

***Dicaelotus pudibundus*** (Wesmael, 1845)

Several specimens. **England:** V.C.s 1, 15, 16, 17. **France:** Lot-et-Garonne. Specimens collected in v and vii. 1 ♀ emerged 8.iii (presumably ex hibernation) from fallen cones of *Pseudotsuga menziesii* collected 25.ii (*M. T. Jennings*).

***Dicaelotus pumilus*** (Gravenhorst, 1829)

Numerous specimens. **England:** V.C.s 3, 9, 10, 11, 15, 18, 23, 28, 'York'. **Wales:** V.C. 46. **Scotland:** V.C.s 82, 83, 85, 90, 92, 96, 99. **Poland:** Biebrza National Park. Specimens collected from iv–xi. Reared from pupae of the depressariid *Depressaria ultimella* Stainton [in stems of] *Apium nodiflorum* (4, 3 sites) (*R. J. Heckford*, *J. R. Langmaid*), emerging in the year of host collection (one of the reared specimens transferred to the Zoologische Staatssammlung, München (ZSM)), and 1 ♂ labelled as reared from the coleophorid *Coleophora salinella* Stainton, coll. iv, em. vi (*I. Sims*).

***Dicaelotus punctiventris*** (Thomson, 1891)

Numerous specimens. **England:** V.C.s 7, 22, 28, 58. **Scotland:** V.C.s 89, 92, 95, 97, 106. **France:** Dordogne, Lot-et-Garonne. Specimens collected from v–viii, with singletons additionally in iv and x. One ♂ reared iv from the fungus *Coriolus versicolor* harbouring the teneid *Nemapogon ruricolella* (Stainton) collected on 3.ii (*I. Sims*). As the male is unlikely to overwinter as an adult, this may suggest that the winter is passed in a pre-adult stage.

***Dicaelotus pusillator*** (Gravenhorst, 1807)

This species is here recorded as British for the first time. **Scotland:** 1 ♀, Stirlingshire, Mugdock (V.C. 86), 27.viii [no year] (*P. Cameron*); 5 ♀, Dumfriesshire, Newton Moss, (V.C. 72), 27.vii.1936 (2 ♀), 11.viii.1936 (1 ♀), 24.viii.1936 (1 ♀) and 18.ix.1936 (1 ♀) (all ♀. *Murray*). Two specimens of the latter series have been transferred to the ZSM.

***Dicaelotus pusillus*** Holmgren, 1890

This species is here recorded as British for the first time. **England:** 1 ♀, 3 ♂, Kent, Dungeness (V.C. 15), 5–19.ix.1988 (3 ♂) and 3–17.x.1988 (1 ♀) (*K. Morris/NCC*); 3 ♀, Oxfordshire, Dry Sandford Pit (V.C. 22), 30.vi–19.vii.1990 (1 ♀), 19.vii–10.viii.1990 (1 ♀) and 10.viii–10.ix.1990 (1 ♀) (*K. Porter/NCC*).

***Dicaelotus ruficoxatus*** (Gravenhorst, 1829)

**France:** 1 ♀, Lot-et-Garonne, Bernac, 28.vii.1990 (*M. R. Shaw*).

***Dicaelotus rufoniger*** Berthoumieu, 1897

Numerous specimens. **Wales:** V.C. 45. **Scotland:** V.C.s 85, 89, 92, 95, 96, 97, 106. **Ireland:** V.C. H.27. Specimens collected in v and from vii–ix. Reared (coll. and em. vi) from a pupa of the gelechiid *Bryotropha politella* (Stainton) found among *Rhytidadelphus squarrosus* (*R. J. Heckford*).

***Dicaelotus schmiedeknechti*** Diller & Shaw, **nom. nov.** (= *D. ruficornis* (Schmiedeknecht, 1903) nec (Ashmead, 1890))

When Selfa & Diller (1999) transferred the nominal species that had been known as *Eparces ruficornis* to the genus *Dicaelotus* (at the same time attributing authorship to Schmiedeknecht, 1903, rather than to Foerster, 1903), they overlooked that this resulted in a secondary homonym, junior to *Dicaelotus ruficornis* (Ashmead, 1890). We therefore propose the new name *Dicaelotus schmiedeknechti* for *D. ruficornis* (Schmiedeknecht).

This species is here recorded as British for the first time. **England:** 1 ♀, Norfolk, Santon Downham, TL 818883 (V.C. 28), 15–27.viii.1984 (*J. Field*); 1 ♀, Kent, Dungeness (V.C. 15), 5–19.ix.1988 (*K. Morris/NCC*).

***Dicaelotus suspectus*** Perkins, 1953

**England:** 2 ♀, Norfolk, Santon Downham, TL 818883 (V.C. 28), 7–18.viii.1983 (*J. Field*); 1 ♀, Kent, Dungeness (V.C. 15), 5–19.ix.1988 (*K. Morris/NCC*). **Netherlands:** 1 ♀, Ede, 2.viii.1990 (*C. J. Zwakhals*).

***Dilleritomus apertor*** Aubert, 1979

This species is here recorded as British for the first time. Several specimens. **England:** 1 ♀, 1 ♂, Wiltshire, Trowbridge (V.C. 8), reared 9.viii.1996 from pupae of the bedelliid *Bedellia somnulentella* (Zeller) on *Convolvulus arvensis* (*G. Smith*). **France:** Dordogne, Lot-et-Garonne.

***Dilleritomus filiformis*** (Strobl, 1901)

This species is here recorded as British for the first time. Many specimens, but all are male. **England:** V.C.s 23, 27, 29. **Wales:** V.C.s 45, 46. Specimens collected from vii–ix(x), in fens.

***Dirophanes callopus*** (Wesmael, 1845)

Many specimens. **England:** V.C.s 7, 18, 22, 23, 58. **Scotland:** 77, 83, 89, 96. Specimens collected from iv–v, (vi)vii–viii and in ix/x. Reared in vi–vii from tortricid pupae collected in vi on *Rosa*, in all cases perhaps *Acleris bergmanniana* (Linnaeus) (3) (*K. P. Bland, R. P. Knill-Jones, M. R. Shaw*). Also reared in vi apparently from *Coleophora conspicuella* Zeller (Coleophoridae) collected in v (*A. N. B. Simpson*), but the specimen lacks host remains.

***Dirophanes foveolatus*** (Perkins, 1953)

**Scotland:** 1 ♀, Dumfriesshire, Greta (V.C. 72), 31.viii.1938 (J. Murray); 1 ♀, Dumfriesshire, Dumfries (V.C. 72) (J. Murray); 1 ♀, Aberdeenshire, Braemar, Morrone Birkwood (V.C. 92), 4–29.vii.1983 (B. D. Batty); 1 ♀, Sutherland, Skelpick, NC 724560 (V.C. 108), 3–9.vii.1982 (D. Horsfield).

***Dirophanes fulvitaris*** (Wesmael, 1845)

Many specimens. **England:** V.C.s 23, 28, 38. **Isle of Man:** V.C. 71. **Scotland:** V.C.s 95, 96. **Ireland:** V.C. H.3. Specimens collected from vi–vii(viii) and in (ix)x.

***Dirophanes invisor*** (Thunberg, 1824)

Many specimens. **England:** V.C.s 7, 17, 24, 25, 36, 69. **Scotland:** V.C.s 86, 89, 96, 99. Specimens collected from v–x, especially in x (e.g. on *Hedera* flowers). In addition, one female collected in leaf litter in iii (*S. I. Baldwin*). Females have been fogged in numbers from *Quercus* canopy in vii–viii (*N. E. Stork*).

***Dirophanes maculicornis*** (Stephens, 1835)

Many specimens. **England:** V.C.s 23, 28, 34. **Scotland:** V.C.s 77, 83, 89, 96, 101. Specimens collected from (v)vi–vii; additionally 1 ♀ found under *Acer pseudoplatanus* bark in iii (*E. C. Pelham-Clinton*).

***Dirophanes mysticus*** (Wesmael, 1855)

Many specimens, but all are males. **England:** V.C. 29. **Scotland:** V.C.s 81, 92, 95, 96. Specimens collected from viii–ix(x), and one apparently in iv. Reared in vii from a pupa of the tortricid *Olethreutes mygindiana* ([Denis & Schiffermüller]) collected in vi from *Arctostaphylos uva-ursi* (1) (*K. P. Bland*).

***Dirophanes regenerator*** (Fabricius, 1804)

Numerous specimens. **England:** V.C.s 6, 7, 15, 22, 23, 24, 37, 58, 64, 69. **Wales:** V.C. 52. **Isle of Man:** V.C. 71. **Scotland:** V.C.s 72, 76, 77, 79, 83, 86, 88, 89, 92, 95, 96, 99. **Netherlands:** Meijndel (Wassenaar). **France:** Lot-et-Garonne. Specimens collected from (iv)v–ix(x), but males only from viii–ix. Additional females have been found in moss in i and ii (*K. P. Bland*). Reared in vi and vii from recently collected pupae of tortricids: probably *Acleris bergmanniana* (Linnaeus) on *Rosa* (1) (*R. P. Knill-Jones*), indet. species on *Rosa* (1) (J. R. Langmaid), ?*Acleris ferrugana* ([Denis & Schiffermüller]) on *Quercus* (1) (*A. N. B. Simpson*). Also possibly from the gelechiid *Athrips mouffetella* (Linnaeus) on *Lonicera* (1) (*M. F. V. Corley*).

***Eparces grandiceps*** (Thomson, 1891)

**England:** 2 ♀, Oxfordshire, Chimney Meadows Ditch, SU352999 (V.C. 22), 10.vii–9.viii.1991 (1 ♀) and 9.viii–6.ix.1991 (1 ♀) (*K. Porter/NCC*). A further female from this locality with the first date range has been transferred to BMNH.

***Epitomus infuscatus*** (Gravenhorst, 1829)

Numerous specimens. **England:** V.C.s 7, 9, 22, 23, 27, 28, 29, 36, 58, 64. **Scotland:** V.C.s 86, 88, 89, 96, 97, 101, 102, 105, 108, 110. **France:** Lot-et-Garonne. Specimens collected from iv–ix(x). Reared from the elachistid *Elachista humilis* Zeller (1) (*H. N. Michaelis*).

***Epitomus proximus*** Perkins, 1953

Numerous specimens. **England:** V.C.s 23, 28, 29, 58, 66. **Scotland:** V.C.s 83, 89, 96, 105. **France:** Lot-et-Garonne, Dordogne. Specimens collected from v–vii and ix–x. Reared in vii from a pupa of the elachistid *Elachista humilis* Zeller collected as a larva mining *Deschampsia cespitosa* in vi (1) (*K. P. Bland*); also reared in vii from the pupa of an indet. elachistid swept as a larva in v (1) (*M. R. Shaw*). The precise data of these two rearing records indicate that this species is a koinobiont.

***Eriplatys ardeicollis*** (Wesmael, 1845)

**England:** 2 ♀, 1 ♂, Norfolk, Santon Downham, TL818883 (V.C. 28), 20.iv–6.v.1985 (1 ♀), 6–20.v.1985 (1 ♂), 5–18.viii.1983 (1 ♀) (J. Field); 1 ♀, Surrey, Englemere Pond, SU9068

(V.C. 17), on dead *Pinus*, 21.iv.2001 (*M. R. Shaw*). **Scotland**: 1 ♀, Inverness-shire, Abernethy Forest (V.C. 95), 12–20.v.1989 (*D. Phillips*); 1 ♂, Perthshire, Flanders Moss (V.C. 87), ex pupa of *Cedestis* sp. (Yponomeutidae) on *Pinus*, coll. 11.vi.1981, em. 19.vi.1981 (*K. P. Bland*). There is also an old specimen without data (*P. Cameron*).

***Eriplatys sawoniewiczzi*** Diller, 1993

This species is here recorded as British for the first time. Numerous specimens. **England**: V.C.s 28, 59. **Scotland**: V.C.s 88, 92, 95, 96, 97, 105. Specimens collected from v–viii(ix), always amongst *Pinus*.

***Hemichneumon subdolosus*** Wesmael, 1857

Many specimens. **England**: V.C.s 15, 17, 22. **Germany**: Bavaria. **Sweden**: Uppland. **Belgium**: Antwerp. All the specimens are reared, from the psychids *Taleporia tubulosa* (Retzius) (9) (*N. Hall, K. Janssens, E. C. Pelham-Clinton, J. Roche, W. Rait-Smith*), *Dahlica* sp. (4, all Germany) (*N. Ryrholm*) and *Sterrhoptyx* sp. (1, Sweden) (*N. Ryrholm*), and the coleophorid *Coleophora pennella* ([Denis & Schiffermüller]) (3) (*E. S. Bradford*). From the limited data recorded on labels, it seems to emerge in about v from psychid cases collected earlier in the year (the earliest collection date recorded is 20.iii). The series from *Coleophora pennella* has the emergence date 3.vii, suggesting that this moth may host a summer generation.

***Herpestomus arridens*** (Gravenhorst, 1829)

Several specimens. **England**: V.C.s 3, 7, 23, 58. **Scotland**: V.C. 83. **Spain**: unknown locality. Specimens collected in (iv)v, vii/viii and ix/x reared from a pupa of the pyralid *Apomyeloides bistriatella subcognata* (Ragonot). Also reared in xii from a pupa of the pyralid *Cryptoblabes gnidiella* (Millière) found x in the calyx of a pomegranate of unknown origin (1) (*M. R. Shaw*), and in ix from an undetermined microlepidopterous pupa found in x in the calyx of a pomegranate of Spanish origin (1) (*M. S. Parsons*).

***Herpestomus brunnicornis*** (Gravenhorst, 1829)

Numerous specimens. **England**: V.C.s 55, 59, 66, 80. **Scotland**: V.C.s 85, 86. **Ireland**: V.C. H16. **France**: Sarthe, Dordogne, Hautes-Alpes. **Italy**: Sudtirol. Specimens collected in v. Reared from pupae of Yponomeutidae (emerging around vii in the year of collection) as follows: *Yponomeuta padella* (Linnaeus) (28) (*A. Buckham, A. M. Emmet, M. Hider, M. T. Jennings, S. R. Leather, N. Littlewood, M. R. Shaw*), *Yponomeuta cagnagella* (Hübner) (6) (*R. R. Askew, A. Buckham*), *Yponomeuta evonymella* (Linnaeus) (2) (*R. P. Knill-Jones*), *Yponomeuta malinellus* Zeller (1) (*R. T. McAndrew*). In addition, a specimen (lacking host remains) is labelled ex *Tortrix rosana* on *Rosa* (*Dr Lany*); while this may be correct, in interpreting this record it might be borne in mind that *Yponomeuta* species sometimes pupate away from their foodplant.

***Herpestomus minimus*** (Berthoumieu, 1901)

This species is here reliably recorded as British for the first time (previous records due to Carr (1924) are discounted (see Perkins, 1953: 117; Fitton *et al.*, 1978: v–vi)). **England**: 3 ♀, Cheshire, Abbots Moss, SJ 5868 (V.C. 58), 24.iv–7.v.1986 (1 ♀) and 21.ix–12.x.1986 (2 ♀) (*R. R. Askew*). **Scotland**: 1 ♂, Aberdeenshire, Braemar, Morrone Birkwood, ex pupa of the yponomeutid *Kessleria saxifraga* (Stainton) coll. 28.vi. 1984, em. vii.1984 (*M. R. Young*).

***Heterischnus filiformis*** (Gravenhorst, 1829)

**Denmark**: 1 ♂, Fyn, Enebærøde, ex *Stenoptilia pelidnodactyla* (Stein) (Pterophoridae) on *Saxifraga stellaris*, 2.v.1993 (*B. Jørgensen*).

***Heterischnus nigricollis*** (Wesmael, 1845)

Numerous specimens. **England**: V.C.s 7, 13, 15, 22, 27, 28, 29. **Wales**: V.C.s 49, 52. **Scotland**: V.C. 83. Specimens collected in vii–viii(ix), and 1 ♀ found in a dead stem of *Cirsium palustre* in i (*K. P. Bland*). Reared from pupae of pterophorids: *Wheeleria spilodactylus* (Curtis), coll. vi–vii, em. vii–viii (16, from one survey) (*R. Menéndez*), *Emmelina monodactyla* (Linnaeus) (1) (*E. S. Bradford*), and indet. species (1) (*A. R. Cronin*). Also, one female labelled as reared from an egg sac of the spider *Pisaura listeri* (Scopoli) (*R. E. Evans*), but lacking the host remains needed to substantiate such an improbable host record.

***Heterischnus pictipes*** (Kriechbaumer, 1894)

**France:** 1 ♀, Var, Hôtellerie de la Ste Baume, ex pupa of the pterophorid *Emmelina monodactyla* (Linnaeus), coll. 1.vii.1998, em. 18.vi.1998 (*M. R. Shaw*).

***Heterischnus pulchellus*** (Thomson, 1891)

**Spain:** 1 ♀, Sierra Nevada, vii.1905 (*P. Cameron*).

***Heterischnus pulex*** (Müller, 1776)

**France:** 2 ♀, Dordogne, St Alèvre, 16–23.vi.2003 (*R. R. Askew*).

***Heterischnus truncator*** (Fabricius, 1798)

Numerous specimens. **England:** V.C.s 3, 5, 7, 8, 12, 13, 22, 23, 28, 29, 32, 34. **Scotland:** V.C. 83. **France:** Dordogne, Côte-d'Or, Ardèche, Alpes-Maritimes. Specimens collected from (iv)v–x, and 3 ♀ under *Quercus* bark in iii (*J. A. Owen*). Reared in vii–viii from recently collected pupae of pterophorids: *Pterophorus pentadactyla* (Linnaeus) (2) (*S. J. Edwards, M. R. Shaw*), and indet. species (3) (*M. R. Shaw*).

***Mevesia alternans*** (Wesmael, 1845)

**Italy:** 1 ♂, Sudtirol, Burgeis, 1200 m, 6–11.vii.2004 (*M. R. Shaw*).

***Mevesia arguta*** (Wesmael, 1845)

Numerous specimens. **England:** V.C.s 7, 22, 23, 29, 39, 58, 69. **Scotland:** V.C.s 76, 77, 86, 89, 99. **France:** Côte-d'Or. Specimens collected from iv–vii and in (viii)ix.

***Mevesia guttata*** Perkins, 1953

**England:** 1 ♂, Cambridgeshire, Chippenham Fen, TL 650693 (V.C. 29), 25.vi–5.vii.1985 (*J. Field*).

***Misetus oculatus*** Wesmael, 1845

Numerous specimens. **England:** V.C.s 7, 22, 24, 28. **Scotland:** V.C.s 86, 88, 92, 95, 96, 101, 102, 105, 106. **France:** Dordogne, Lot-et-Garonne. **Sweden:** Västerbotten. Specimens collected from v–ix. Reared in iv from cases of the lypusid *Pseudatemelia subochreella* (Doubleday) collected in leaf litter in iii (6) (*J. R. Langmaid*).

***Nematomicrus tenellus*** Wesmael, 1845

Many specimens. **England:** V.C.s 7, 15, 18, 21, 22, 23, 28, 29. **Scotland:** V.C. 82. Specimens collected in iv/v, vi(vii), (vii)viii(ix), and ix(x). Reared in v from the parametriotid *Spuleria flavicaput* (Haworth) in *Crataegus* twigs collected in iv (6) (*E. S. Bradford, J. R. Langmaid, E. C. Pelham-Clinton*) (one of the foregoing transferred to ZSM) and from a dead *Rosa canina* stem (1), em. v. (*E. S. Bradford*). In the latter case the host was not determined, but the specimen is a male so presumably it had not been hibernating as an adult.

***Oiorhinus pallipalpis*** Wesmael, 1845

Numerous specimens. **England:** V.C.s 1, 3, 7, 21, 22, 23, 24, 25, 27, 28, 29, 38, 58, 60. **Wales:** V.C. 52. **Scotland:** V.C.s 75, 78, 79, 83, 84, 86, 87, 88, 89, 95, 99, 101. Specimens collected from (iv)v–xi, and 1 ♀ collected in leaf litter in iii (*S. I. Baldwin*). Reared from pupae of the choreutids *Anthophila fabriciana* (Linnaeus) (16) (*K. P. Bland, C. Grobler, M. R. Shaw, R. A. Softly*), *Prochoreutis myllerana* (Fabricius) (2) (*K. P. Bland, R. P. Knill-Jones*), *Prochoreutis* sp. (3) (*K. P. Bland, R. P. Knill-Jones, M. R. Shaw*), *Tebenna micalis* (Mann) (14) (*R. J. Heckford*), and *Choreutis pariana* (Clerck) (3) (*M. F. V. Corley, M. R. Shaw*). Emergence is always in the year of host collection and this species clearly overwinters as an adult.

***Orotylus mitis*** (Wesmael, 1848)

This species is confirmed as British (previously known specimens that were probably British lacked clear data). **England:** 4 ♀, 4 ♂, Cheshire, Abbots Moss, SJ 5868 (V.C. 58), 12–27.viii.1986 (4 ♀), 5–25.viii.1986 (2 ♂) and 25.viii–21.ix.1986 (2 ♂) (*R. R. Askew*); 2 ♂, Herefordshire, Moccas Park (V.C. 36), 1–10.viii.1992 (*J. Cooter*); 1 ♂, Cambridgeshire, Chippenham Fen, TL 650693 (V.C. 29), 1983 (*J. Field*). In BMNH there are also specimens from England: Huntingdonshire, Monks Wood NNR, TL 199798 (V.C. 31), Rothamsted light



trap, 20.vii.2005 (det. G. Broad); and Hertfordshire, Harpenden, TL 152131 (V.C. 20), Rothamsted light trap, 2004 (det. E. Diller) (G. Broad, pers. comm.).

***Phaeogenes heterogonus*** Holmgren, 1890

**Wales:** 1 ♀, Ceridigion, Cors Llyn Farch a Llyn Fanod, SN 599638 (V.C. 46), 9–23.vii.1987 (*P. Holmes/NCC*). Also 1 ♀, probably from England but labelled only 'ex coll. W. Ellis 1905'.

***Phaeogenes melanogonos*** (Gmelin, 1790)

Many specimens. **England:** V.C.s 9, 17, 69. **Scotland:** V.C.s 83, 92, 95, 96. **France:** Dordogne, Lot-et-Garonne. Specimens collected from v–x.

***Phaeogenes nigridentis*** Wesmael, 1845, **comb. rev.**

This species was originally described in *Phaeogenes* but later transferred to *Tycherus*. However, in our view its characters correctly place it in *Phaeogenes* (to which it will run in the key by Selfa & Diller, 1994).

**England:** 2 ♀, 1 ♂, Oxfordshire, Dry Sandford Pit, SU 468995 (V.C. 22) 30.vi–17.vii.1990 (1 ♂) and 19.vii–10.viii.1990 (2 ♀) (*K. Porter/NCC*); 2 ♀, Oxfordshire, Barrow Farm Fen, SU 468976 (V.C. 22), 19.vii–17.viii.1990 (1 ♀) and 17.viii–14.xi.1990 (1 ♀) (*K. Porter/NCC*); 2 ♀, 1 ♂, Cambridgeshire, Chippenham Fen, TL 650693 (V.C. 29), 16–24.vi.1983 (1 ♀, 1 ♂) and 18–29.vi.1984 (1 ♀) (*J. Field*). This appears to be a fenland species.

***Phaeogenes semivulpinus*** (Gravenhorst, 1829)

1 ♀, probably British but lacking data, from C. Morley's collection. **France:** 1 ♀, Dordogne, St Alvére, 21.v–4.vi.1999 (*R. R. Askew*).

***Stenodontus malaisei*** Roman, 1925

**Norway:** 1 ♀, Sygnefjell, 1450 m, 18.vii.1984 (*K. P. Bland*).

***Stenodontus marginellus*** (Gravenhorst, 1829)

Numerous specimens. **England:** V.C.s 7, 22, 23, 24, 28, 29. **Wales:** V.C. 52. **Scotland:** V.C.s 86, 89, 101. **Ireland:** V.C. H20. **Finland:** Uusimaa. Specimens collected from v–viii(ix) and in ix/x and x/xi.

***Trachyarus corvinus*** Thomson, 1891

Many specimens. **England:** 6, 19, 20, 37, 58, 64. **Sweden:** Skåne. **Germany:** Bavaria. 1 specimen collected viii; the remainder are reared v and vii from psychid cases collected in iv and v as follows: *Dahlica inconspicua* (Stainton) (1) (*J. R. Langmaid*), *Dahlica lichenella* (Linnaeus) (1, Sweden) (*N. Ryrholm*), *Dahlica triquetrella* (Hübner) (4, Sweden) (*N. Ryrholm*), *Narycia duplicella* Goeze (4) (*E. S. Bradford*, *E. C. Pelham-Clinton*, *N. Ryrholm*, *I. Sims*), *Luffia ferchaultella* (Stephens) (1) (*D. Parkinson*) and ?*L. ferchaultella* (2) (*A. M. Emmet*).

**TYCHERUS** Foerster, 1859

A moderate number of male specimens of this genus remain undetermined.

***Tycherus amaenus*** (Wesmael, 1845)

This species is here recorded as British for the first time. **Wales:** 1 ♀, Anglesey, Aberffraw, in dead *Heracleum sphondylium* stem, 8.iv.2008 (*M. R. Shaw*).

***Tycherus bellicornis*** (Wesmael, 1845)

Numerous specimens. **England:** V.C.s 7, 22, 23, 27, 28, 29. **Wales:** V.C.s 45, 52. **Scotland:** V.C.s 72, 92, 96, 106. **France:** Haute-Savoie. Specimens collected from vi–viii. Reared ex indet. Lepidoptera pupa in rolled *Rubus fruticosus* (agg) leaf, coll. and em. vii (1) (*P. J. Johnson*).

***Tycherus brunneus*** (Kiss, 1924)

This species is here recorded as British for the first time. **England:** 1 ♀, Wiltshire, Savernake Forest, SU 225660 (V.C. 7), 22.viii–25.ix.1991 (*K. Porter/NCC*); 1 ♀, Oxfordshire, Frilford Heath, SU 442986 (V.C. 22), 25.v–18.vi.1991 (*K. Porter/NCC*); 2 ♀, 3 ♂, Norfolk, Santon Downham, TL 818883 (V.C. 28), 25.v–7.vi.19984 (1 ♀), 6–20.vii.1985 (2 ♂), 16–25.vii.1983 (1 ♂) and 20–30.vii.1985 (1 ♀) (*J. Field*). **France:** 1 ♀, Dordogne, St Alvére, 13–25.vi.2003 (*R. R. Askew*).

***Tycherus capitosus*** (Holmgren, 1890)

This species is here recorded as British for the first time. **Scotland:** 7 ♀, Perthshire, Rannoch, NN 5655 (V.C. 88), v.1990 (1 ♀) and vi.1990 (6 ♀) (*I. MacGowan*); 9 ♀, Wester Ross, Shieldaig, NG 8252 (V.C. 105), v.1991 (4 ♀), vi.1991 (4 ♀) and vii.1991 (1 ♀) (*I. MacGowan*); 3 ♀, Inverness-shire, Loch Arkaig, NN 0291 (V.C. 97), v.1992 (2 ♀) and vi.1992 (1 ♀) (*I. MacGowan*); 1 ♀, Inverness-shire, Abernethy Forest (V.C. 95), 1–14.vi.1989 (*D. Phillips*); 1 ♂, Argyll, Taynish, NR 730845 (V.C.101), 27.vi–9.vii.1984 (*I. C. Christie*). All except the last specimen (a male) were collected in native pine woods.

***Tycherus cephalotes*** (Wesmael, 1845)

**England:** 1 ♂, Hampshire, Silchester Common (V.C. 12), ex *Betula* stump with the sesiid *Synanthedon culiciformis* (Linnaeus), coll. 26.v.1991, em. 26.vi.1991 (*M. F. V. Corley*). The relatively advanced date on which the adult appeared, as well as its being a male, suggests that it was not simply overwintering in the stump; however, no host remains were recovered so the identity of the host is in doubt.

***Tycherus coriaceus*** (Perkins, 1953)

Numerous specimens. **England:** V.C.s 3, 7, 22, 23, 24, 27, 28, 29, 58. **Scotland:** V.C.s 88, 89, 92, 94, 95, 96. Specimens collected from (iv)v–viii.

***Tycherus dodecellae*** Ranin, 1983

This species is here recorded as British for the first time. **Scotland:** 1 ♀, Inverness-shire, Abernethy Forest (V.C. 95), 27.x–17.xi.1988 (*D. Phillips*); 1 ♀ same data but probably V.C. 96, 30.vii.1986 (*M. R. Young & A. Edgar*).

***Tycherus elongatus*** (Thomson, 1891)

Many specimens. **England:** V.C.s 3, 11, 22, 23, 28, 29. Specimens collected from v–viii(ix). Reared in v and vi from pupae of the tortricid *Endothenia nigricostana* (Haworth) collected v in dead stems of *Stachys sylvaticus* (4) (*R. J. Heckford, J. R. Langmaid*).

***Tycherus eques*** (Wesmael, 1845)

Several specimens. **England:** V.C. 70. **Scotland:** V.C.s 82, 83, 105, 111. Reared from pupae of the tortricid *Epiblema cirsiiana* (Zeller) in dead stems of *Cirsium palustre*, coll. v(vi), em. vi (5, from 4 localities) (*K. P. Bland*).

***Tycherus flavidens*** (Wesmael, 1845)

**England:** 1 ♂, Wiltshire, Savernay Forest, SU 229656 (V.C. 7), 26.vii–16.viii.1990 (*K. Porter/NCC*).

***Tycherus fuscibucca*** (Berthoumieu, 1901)

This species is here recorded as British for the first time. **Scotland:** 1 ♀, 4 ♂, Aberdeenshire, Glen Tanar (V.C. 92), ex galls of the tortricid *Retinia resinella* (Linnaeus) on *Pinus sylvestris*, coll. v and vi, em. vi–vii.1977, 1983 and 1984 (*R. R. Askew, M. R. Shaw*); 2 ♀, Inverness-shire, Boat of Garten (V.C. 95), ex same host, coll. v.1985 and em. the same year (*D. H., P. H. & M. J. Sterling*). The above all appeared to be parasitoids of the gall-maker itself. However, one rather small male was reared from a previous year's gall, which had presumably been colonised by a subsequent larva (perhaps of the tortricid *Cydia cosmophorana* (Treitschke)). A male and female, one from each of the above reared series, has been transferred to ZSM.

***Tycherus fuscicornis*** (Wesmael, 1845)

Numerous specimens, all referable to the nominotypical subspecies. **England:** V.C.s 1, 7, 22, 23, 27, 28, 29. **Scotland:** V.C.s 81, 83, 85, 92, 96, 99. **Turkey:** Ankara. Specimens collected in iv/v and from (v)vi–ix(x). Single females also found in i in dead stems of *Filipendula ulmaria* and *Cirsium palustre* (both *K. P. Bland*), presumably hibernating. Reared from a pupa of the tortricid *Epiblema cirsiiana* (Zeller) in a thistle stem, coll. and em. vi (1) (*K. P. Bland*); from the pupa of an indet. tortricid coll. on *Populus* vi, em vii (1, Turkey) (*M. R. Shaw*); and from an indet. tortricid pupa in spun *Chamaenerion angustifolium* coll. and em. vii (1) (*E. C. Pelham-Clinton*).

***Tycherus helleni*** Ranin, 1983

This species is here recorded as British for the first time. **Scotland:** 1 ♂, Easter Ross, Amat, NH 4689 (V.C. 106), viii.1989 (*I. MacGowan*). The site is a native pinewood.

***Tycherus histrio*** (Wesmael, 1848), **sp. rev.**

Examination of the lectotype of *Phaeogenes histrio* Wesmael, 1848 has shown it to be a species distinct from *Tycherus ischiomelinus* (Gravenhorst, 1829), with which it had been synonymised. Females of the species differ as follows:

*T. histrio*. Only one small dorsal white spot on each of flagellar segments 9–10. Hind coxae black. Metasomal segments 2–3 finely coriaceous. Ovipositor extending far beyond apex of metasoma.

*T. ischiomelinus*. White ring on flagellar segments (6) 7–10. Apical half of hind coxae reddish. Metasoma shining and widely punctate. Ovipositor scarcely projecting beyond apex of metasoma.

1 ♀, probably British, but labelled only 2.iv.[18]99, from C. Morley's collection.

***Tycherus impiger*** (Wesmael, 1845)

**England:** 2 ♀, Oxfordshire, Barrow Farm Fen, SU 468976 (V.C. 22), 17.viii–14.xi.1990 (*K. Porter/NCC*). **Scotland:** 1 ♀, Fife (V.C. 85), 17.iv.1915 (*W. Evans*).

***Tycherus improcerus*** Ranin, 1983

This species is here recorded as British for the first time. **England:** 2 ♂, Norfolk, Santon Downham, TL 818883 (V.C. 28), 20–30.vii.1985 (1 ♂) and 7–18.viii.1983 (1 ♂) (*J. Field*).

***Tycherus infimus*** (Wesmael, 1845)

Several specimens. **Scotland:** V.C.s 92, 95, 105, 106. Specimens collected from vi–vii(viii) and in x.

***Tycherus ischiomelinus*** (Gravenhorst, 1829)

Numerous specimens. **England:** V.C.s 13, 17, 20, 22, 27, 28, 29, 58. **Scotland:** V.C.s 76, 88, 89, 92, 95, 96, 105. **Ireland:** V.C. H27. Specimens collected from v–x, with single females in both iii and iv.

***Tycherus modestus*** (Wesmael, 1845)

**England:** 1 ♀, 1 ♂, Somerset, Porlock Common (V.C. 5), ex pupae of the tortricid *Enarmonia formosana* (Scopoli), coll. 8.v.2007, em 7.vi.2007 (1 ♂) and 16.vi.2007 (1 ♀) (*B. P. Henwood*). **Scotland:** 1 ♀, Wester Ross, Shildaig, NG 8252 (V.C. 105), vii.1991 (*I. MacGowan*); 1 ♂, Stirlingshire, Strathblane Moor, NS 5578 (V.C.86), labelled as ex pupa of the tortricid *Lozotaeniodes formosanus* (Geyer) on *Sorbus aucuparia* bark, coll. and em. vii.1983 (*R. P. Knull-Jones*), but the record of the host seems surprising and the name on the label may be a lapsus for *E. formosana*.

***Tycherus ophthalmicus*** (Wesmael, 1845)

Numerous specimens. **England:** V.C.s 9, 14, 36, 37. **Wales:** V.C.s 45, 46, 52. **Scotland:** V.C.s 89, 92, 101, 110, 112. **France:** Hautes-Alpes. **Switzerland:** Valais. Specimens collected from (v)vi–ix.

***Tycherus osculator*** (Thunberg, 1824)

Numerous specimens. **England:** V.C.s 22, 23, 27, 29, 36, 58. **Wales:** V.C.52. **Scotland:** V.C.s 84, 88, 89, 90, 92, 96, 99, 105. Specimens collected from v–viii(ix) and 1 male in x. Reared from the pupa of an unknown microlepidopteron on *Epilobium*, coll. and em. vii (*K. P. Bland*).

***Tycherus planipectus*** (Holmgren, 1890)

This species is here recorded as British for the first time. **Scotland:** 2 ♂, Aberdeenshire, Morrone Birkwood (V.C. 92), 4–29.vii.1983 (1 ♂) and 6–17.viii.1984 (1 ♂) (*B. D. Batty*); 1 ♂, Aberdeenshire, Glen Tanar (V.C. 92), 4–18.viii.1996 (*I. MacGowan*); 1 ♂, Inverness-shire, Glen Strathfarrer NH330391 (V.C. 96), vii.1988 (*I. MacGowan*); 1 ♂, Easter Ross, Amat, NH 4689 (V.C. 106), viii.1989 (*I. MacGowan*).

***Tycherus socialis*** (Ratzeburg, 1852)

This species is here recorded as British for the first time. **England:** 1 ♀, Surrey, Richmond Park (V.C. 17), fogged from *Quercus robur* canopy, 30.v.1984 (N. E. Stork).

***Tycherus stipator*** (Wesmael, 1855)

Numerous specimens. **England:** V.C.s 3, 6, 11, 12, 15, 23, 27, 34, 36, 66. **Wales:** V.C.s 45, 48. **Scotland:** V.C. 72. **Netherlands:** Leiden. **Denmark:** Århus. Specimens collected from vii–ix. Reared from the pupae of Depressariidae collected in Apiaceae stems as follows: *Depressaria daucella* ([Denis & Schiffermüller])/ *Oenanthe crocata* (2) (T. C. Dunn, E. C. Pelham-Clinton); *D. daucella/Daucus carota* (1) (P. A. Sokoloff); *Depressaria pastinacella* (Duponchel)/ *Heracleum sphondylium* (16, Denmark and Netherlands) (I. C. Hardy, P. Ode); *Depressaria ultimella* Stainton/ *Apium nodiflorum* (A. M. Emmet, R. J. Heckford, J. R. Langmaid). All emerged in the year of collection of host pupae. In view of the apparent abundance of *T. stipator* from *D. pastinacella* in Denmark and the Netherlands it is surprising that none of the above was reared from this very commonly collected host in Britain.

***Tycherus suspicax*** (Wesmael, 1845)

Numerous specimens. **England:** V.C.s 7, 8, 17, 22, 23, 24, 27, 28, 29, 56, 58, 66, 69. **Scotland:** V.C.s 76, 78, 82, 83, 85, 86, 87, 88, 89, 92, 96, 99, 101, 102, 105, 107. **Poland:** Biebrza. Specimens collected from iv–xi. Reared from the argyresthiid *Argyresthia goedartella* (Linnaeus) (2), coll. vi, em. vii.1984 (K. P. Bland). Also reared in spring from *Crataegus* berries coll. the previous ix (1) (K. P. Bland): the tephritid fly *Anomoia purmunda* (Harris) was also reared as the only other insect, but no host remains were recovered and presumably the true host was a microlepidopteron such as an *Argyresthia* species. Also reared from an indet. lepidopterous pupa on *Lonicera periclymenum*, coll. vi, em. vii (1) (B. Fox).

***Tycherus teres*** (Berthoumieu, 1906)

This species is here recorded as British for the first time. **England:** 2 ♀, Surrey, Richmond Park (V.C. 17), fogged from *Quercus robur* canopy, 18.viii.1983 (N. E. Stork); 1 ♀, Worcestershire, Deerfold Wood (V.C. 37), ex pupa of the tortricid *Spilonota laricana* (Heinemann), coll. vi, em. vii.1984 (A. N. B. Simpson).

***Tycherus vafer*** (Wesmael, 1845)

**France:** 9 ♀, 3 ♂, Hautes-Alpes, Le-Monétier-les-Bains, ex pupae of the choreutid *Tebenna bjerkanarella* (Thunberg) on *Cirsium*, coll. 9.vii.2005, em. 22–30.vii.2005 (M. R. Shaw); 2 ♀, 1 ♂, Hautes-Alpes, Val de Clairee, ex pupae *T. bjerkanarella* on *Cirsium*, coll. 10.vii.2005, em. 22–28.vii.2005 (M. R. Shaw). **Spain:** 2 ♀, Huesca, Oto, Barranca de Yesa, ex pupae *Tebenna micalis* (Mann) on *Arctium lappa*, coll. 30.vii.1999, em. 10–13.viii.1999 (G. E. King); 1 ♂, Zaragoza, Juslibol, ex pupa *T. micalis* on *Pulicaria dysenterica*, coll. 22.viii.1999, em. 1999 (G. E. King).

***Tycherus vagus*** (Berthoumieu, 1899)

This species is here recorded as British for the first time. **England:** 1 ♀, 1 ♂, Dorset, Wimborne (V.C. 9), ex [tortricid] pupae in *Malus* bark, em. 12.v.1987 (M. E. Brooks). **Scotland:** 1 ♀, Loch Garten, Inverness-shire (V.C. 96), vi/vii. 1985 (J. A. Owen).

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