A SECOND BRITISH SPECIMEN OF COLEOCENTRUS EXCITATOR (PODA) (HYMENOPTERA: ICHNEUMONIDAE, ACAENITINAE) FROM SCOTLAND

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ABSTRACT

A second British specimen of the spectacular ichneumonid *Coleocentrus excitator* is recorded from Tomich, Inverness-shire, some 80 km NNW from the site at which the first was found 34 years previously. The species is illustrated and notes are given to facilitate identification. Some indications of host and biology are tentatively suggested.

NEW RECORD AND BIOLOGICAL NOTES

The capture by one of us (RML) of a female of the large and striking ichneumonid wasp Coleocentrus excitator (Poda) as it flew round an over-mature Pinus sylvestris at the western edge of the Black Wood of Rannoch, Perthshire (VC 88) on 4.vii.1984 was reported by Shaw (1986), but nothing more has been seen of this species in Britain. It is rather amazing that 34 years later the same collector found a second British specimen (Fig. 1), this time at Tomich, Inverness-shire (VC 96; NH22) at rest on the underside of a fallen Betula straddling a stream on 24.vi.2018. Although the birch trunk, perhaps 9 m long and up to 30 cm diameter, comprised largely sound wood, it was attracting large numbers of adults of the cetoniid *Trichius fasciatus* (L.) as well as the cerambycid Leptura quadrifasciata L. in the hot sunny weather. The latter is the more likely host of C. excitator, which appeared to be contemplating oviposition into firm wood when found, although a single adult of Rhagium bifasciatum F. (Cerambycidae) was also seen to visit the fallen tree. Acaenitinae are probably all internal koinobiont parasitoids of beetle larvae (see Broad, Shaw & Fitton, 2018 for discussion of other host records) and in known cases (Shaw & Wahl, 1989; Schwarz, 2002) oviposition is into early instar larvae and the host is killed as a prepupa, the parasitoid then forming its cocoon in the host's pupation chamber. Although nothing is known for C. excitator, its developmental biology is likely to be similar. It is of interest that while the first British specimen was clearly associated with Pinus, the female recorded here was equally clearly associated with Betula which might suggest a host range of more than one species. The condition of the two specimens (both now in the National Museums of Scotland) is very different: the one taken on 4.vii.1984 (figured by Broad, Shaw & Fitton, 2018: Fig. 26) was rather ragged and probably near the end of its life, while the specimen collected on 24. vi. 2018 was in pristine condition (Fig. 1).

RECOGNITION AND DISTRIBUTION

Encouragingly, this second British site for *C. excitator* (a south-facing slope of rather open birch forest with scattered Scots pine, rowan and the occasional alder) is almost 80 km (50 miles) as the crow flies from the first, suggesting that the species might occur quite widely in ancient forests in the Scottish Highlands. We hope that our figuring the female, which is rather easily recognised from its large size (body length about 25 mm), slender build and most importantly its very large hypopygium

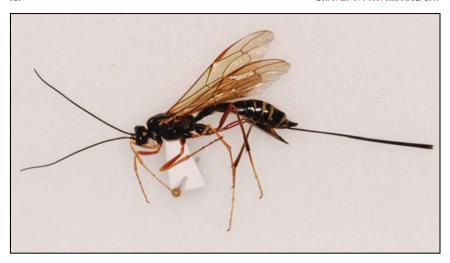
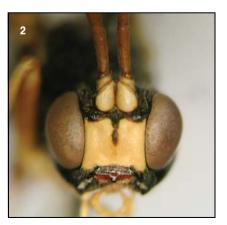


Fig. 1. Coleocentrus excitator, female, Tomich, Inverness-shire.

(Fig. 1) will help others to recognise the species, and perhaps a wide distribution can eventually be plotted. The male, which has not yet been recorded in Britain, is very slender, around 20 mm long, and has a distinctively ivory-coloured face with a (variable) narrow black stripe centrally and the underside of the scape and pedestal also ivory, as well as a strong tubercle below the apex of the clypeus (Fig. 2). In addition, the genital claspers are large and distinctively-shaped (Fig. 3). The only other insect in Britain with which *C. excitator* might be confused is the similarly-sized but probably extinct *Coleocentrus croceicornis* (Gravenhorst), of which three males were collected in the New Forest, Hampshire in 1960 (see Fitton, 1981), but this has the hind coxa red (mostly blackish in *C. excitator*) and the clypeal tubercle much





Figs 2, 3. Coleocentrus excitator, male, Czech Republic. 2. Face and base of antennae. 3. Apex of metasoma.

weaker. Other large Ichneumonidae with comparably long ovipositors such as *Rhyssa persuasoria* (L.) and several *Dolichomitus* species are commonly found in the Scottish Highlands, but lack the very large hypopygium (subgenital plate) of *Coleocentrus*.

REFERENCES

Broad, G. R., Shaw, M. R., & Fitton, M. G. 2018. Ichneumonid wasps (Hymenoptera: Ichneumonidae): their classification and biology. *Handbooks for the Identification of British Insects* 7 (12): i–v; 1–417.

Fitton, M. G. 1981. The British Acaenitinae (Hymenoptera: Ichneumonidae). *Entomologist's Gazette* 32: 185–192.

Schwarz, M. 2002. Schlupwespen (Insecta, Hymenoptera, Ichneumonidae) in den Hochlagen der Hochen Tauern (Österreich). Teil 1: Überblick. *Mitteilungen aus dem Haus der Natur* 15: 45–52.

Shaw, M. R. 1986. *Coleocentrus exitator* (Poda) (Hymenoptera: Ichneumonidae) new to Britain. *Entomologist's Gazette* 37: 221–224.

Shaw, M. R. & Wahl, D. B. 1989. The biology, egg and larvae of *Acaenitus dubitator* (Panzer) (Hymenoptera, Ichneumonidae: Acaenitinae). *Systematic Entomology* **14**: 117–125.

SHORT COMMUNICATION

Differing gall shapes induced by *Trioza centranthi* (Vallot) (Psylloidea: Triozidae). – This year lots of the triozid gall on *Valerianella dentata* (Narrow-fruited Cornsalad) were found along the North Downs Way near Cuxton in Kent (TQ 707675) (Fig. 1a). The gall inducer, the psyllid *Trioza centranthi* (Vallot) has dramatically increased in abundance in the south-east in recent years, since the first (recent) Kent records dating from 2015 (Palmer, 2016) through to the present when it is considered to be one of the most widespread psyllids in the county. The status of the cornsalad here is

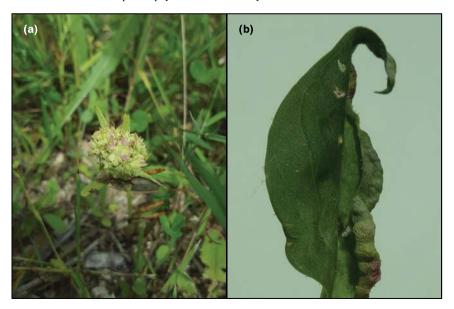


Fig. 1. Trioza centranthi induced galls on (a) flower-head of Valerianella dentata and (b) leaf of Centranthus ruber. Photos: (a) R.Moyse and (b) J. Badmin.