

An unusual aberration in *Harpalus attenuatus* Stephens, 1828 (Col., Carabidae) from Devil's Spittleful, Worcestershire.

Kevin McGee, Gardeners Cottage, Shakenhurst, Kidderminster, Worcestershire DY14 9AR kevinmcgeeandrena@live.co.uk
Paul F. Whitehead, Moor Leys, Little Comberton, Pershore, Worcestershire WR10 3EH paulpfw@outlook.com

A female *Harpalus attenuatus* Stephens, 1828 was photographed (01) and collected by KMcG from bare sandy ground at Devil's Spittleful Nature Reserve in Worcestershire on 2nd June 2022. The specimen was then examined by PFW who noted the unusual aberration described here.



01. Female *Harpalus attenuatus* collected from the Devil's Spittleful on 02.06.2022. Kevin McGee.

Harpalus attenuatus has a UK conservation status of Nationally Scarce (NS) with most records from coastal regions of England and Wales. The current UK distribution map shows distinct concentrations along the south and east coasts of England, along both sides of the Thames Estuary east of London and in the East Anglian Brecklands (NBN Atlas, 2023). The same map shows a single record from the English midlands; one was collected from Hartlebury Common by C. Bell on 29 June 2019 (NBN Atlas, 2023). However, *H. attenuatus* was also observed at Devil's Spittleful by Alan Brown on 21 March 2010 by using a head-torch at night and "finding healthy numbers on the sandy ground" (Brown, 2010).



02. Female *Harpalus attenuatus*, Devil's Spittleful, Worcestershire, 02.06.2022. P. F. Whitehead.

The specimen was photographed again using a stereoscopic microscope (02). This shows a normal example of *H. attenuatus* apart from the right eye which is generally atrophied with the ocelli undeveloped to the extent that the uppermost ocelli are coalesced into a comparatively flattened dysfunctional mass (03, left). Explanations for this may include trauma perhaps during the pupal phase although there is a clear difficulty here insofar as the exoskeleton is evidently normal in all regards. A further consideration is whether a population with minimal or no recruitment is impacted on by prolonged inbreeding. However Brown (2010) illustrates a specimen that is entirely normal. Potential impacts of this aberration on locomotion were not noted by KMcG at the time of finding.



03. (Left) *Harpalus attenuatus*, Devil's Spittleful, Worcestershire, 2 June 2022, with atrophied ocelli and flattened right eye. (Right) *Harpalus attenuatus*, Paphos Headland, Cyprus, 20 May 2013, with a normal right eye. P. F. Whitehead.

For the moment, pending further observations, it is presumed that this unusual phenomenon is a feature of the individual which would undoubtedly be placed at a disadvantage if confronted with a predator. PFW has no previous experience of such an aberration which is presumably unusual and examples of *H. attenuatus* seen from Europe and Asia (03 right) are normal. Further examples of *H. attenuatus* from Worcestershire heathlands may warrant careful scrutiny.

References

Brown, A. 2010. Carabidae of note 2009-2010 in the Kidderminster and Bewdley area. *Worcestershire Record* 29:11-14.
NBN Atlas Species search. Available at: <http://www.nbnatlas.org/> [Accessed 29 October 2023].

Images

01. Female *Harpalus attenuatus* collected from the Devil's Spittleful on 02.06.2022. Kevin McGee.
02. Female *Harpalus attenuatus*, Devil's Spittleful, Worcestershire, 02.06.2022. P. F. Whitehead.
03. (Left) *Harpalus attenuatus*, Devil's Spittleful, Worcestershire, 2 June 2022, with atrophied ocelli and flattened right eye. (Right) *Harpalus attenuatus*, Paphos Headland, Cyprus, 20 May 2013, with a normal right eye. P. F. Whitehead.

Gold-tailed Melitta *Melitta haemorrhoidalis* at Eastham SO6696850

Tony Simpson

Since buying Steven Falk's Field Guide to the Bees of Great Britain and Ireland (Falk 2018) I have been trying to record bees, mainly in and around my rural garden in Eastham. I often find identification challenging and greatly appreciate the help of Kevin McGee and Geoff Trevis who have put me right on many occasions. This is not helped sometimes by my reluctance to kill bees, though I do keep some specimens for reference, and I find it illogically easier to kill males and brood parasites.

In 2023 I have also been doing a bit of bee "twitching" elsewhere in Worcestershire, mostly following the advice and directions of Kevin and looking at species mainly on sandy soils, so very unlike the habitat around my home in the Teme Valley. I have managed to see Early Colletes *Colletes cunicularius*, Clarke's Mining Bee *Andrena clarkella*, Scarce Black Mining Bee *Andrena nigrospina*, Long-horned Bee *Eucera longicornis*, and Pantaloon Bee *Dasygaster hirtipes*. Great stuff!

I am lucky in having a garden with a lot of Nettle-leaved Bellflower *Campanula trachelium* on the sloping bank around the house with a good population of Campanula Pug *Eupithecia denotata* moths. Reading in Falk's bee book that there were two species associated with bellflowers, I had been looking out for them. I soon found the tiny, black Small Scissor Bee *Chelostoma campanularum* usually to be found deep inside the flower bells. In 2022 in the garden, I caught a Blunthorn Nomad Bee *Nomada flavopicta* which was said to be a brood parasite of *Melitta* bees, so I was on the lookout for the *Melitta* bee associated with bellflowers. I had no luck that year, but on 16th July 2023 I saw a 'possible' flying near and then entering a bellflower, so I quickly put a glass tube over the open end of the flower and to my surprise not one but two bees shot out into the tube. They were a male and female Gold-tailed Melitta *Melitta haemorrhoidalis* (01 & 02) and they began mating immediately. After they had separated, I put them in the fridge for half an hour to cool off. I then took them out and placed them on the bellflowers and was able to get some photos before they warmed up and flew away.

Unusually Geoff and Kevin had apparently not seen this species in VC37 Worcestershire so these may be the first records of a mainly

more southern species, which is probably spreading north due to climate change like so many other insects.



01. Male Gold-tailed Melitta *Melitta haemorrhoidalis*, Eastham 16.07.23. Tony Simpson.



02. Female Gold-tailed Melitta *Melitta haemorrhoidalis*, Eastham 16.07.23. Tony Simpson.

References

Falk, S. 2018. *Field Guide to the Bees of Great Britain and Ireland*. Bloomsbury Publishing, London.

Images

01. Male Gold-tailed Melitta *Melitta haemorrhoidalis*, Eastham 16.07.23. Tony Simpson.
02. Female Gold-tailed Melitta *Melitta haemorrhoidalis*, Eastham 16.07.23. Tony Simpson.