

A *Hedychrum* species at the Devil's Spittleful, and a salutary lesson learned!

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During hot sunny weather on 30 June.2018 during a visit to the Devil's Spittleful reserve I became aware of a small brightly coloured wasp moving erratically close to the ground along the edge of a sandy track. I immediately recognised it as being one of the 'cuckoo' jewel wasps in the family Chrysididae. Furthermore, my first thought was that I'd stumbled upon a specimen of *Chrysis viridula* due to the overall size and extensive patches of metallic crimson-red colouration on the thorax and abdomen. *C. viridula* is a scarce species in Worcestershire so I was immediately excited. After a frustrating amount of time, and numerous failed attempts, the wasp eventually remained stationary for a sufficient amount of time for me to take a few decent photographs. It was while I was pressing the shutter that I started to wonder if this wasn't something even more exciting. I then considered that the wasp could only be a specimen of *Hedychrum niemelai*, a very distinctive cleptoparasite of *Cerceris* digger-wasps. I became convinced it must be *H. niemelai*, or at least a jewel wasp so distinctive that I'd easily be able to identify it from online images. I therefore didn't collect the specimen: **a big mistake!**



01. *Hedychrum* sp at Devil's Spittleful on 30 June 2018.© K.McGee.



02. *Hedychrum* sp at Devil's Spittleful on 30 June 2018. © K.McGee.

When I returned home I was very pleased with my images and set about confirming my assumed identification online, oh dear! First of

all *Hedychrum niemelai* is a cleptoparasite of *Cerceris quinquefasciata* (Rossi) and *C. ruficornis* (F.). Neither of these two species occurs anywhere in the Midlands and nor ever have; both are scarce digger wasps found only in southern and eastern England. Consequently, there are no records of the red-listed *H. niemelai* away from those sites. The species of *Cerceris* digger wasp occurring abundantly at the Devil's Spittleful (and at many other sandy sites throughout England and Wales) is *C. arenaria*. Indeed, the *Hedychrum* wasp I photographed was actively inspecting freshly excavated burrows in the sandy track created by females of *C. arenaria*.

The species description and notes on the BWARS website for *H. niemelai* explains how this species has recently been split into two distinct species. Helpfully, a link is provided to a recent paper describing the split (Baldock & Hawkins, 2016). It transpires that *Hedychrum niemelai* is a long-term resident of Britain, but *Hedychrum nobile* is a recent arrival from the continent. The host of *H. nobile* is *Cerceris arenaria*, much the most widespread species within the genus. The paper also describes the physical differences separating the two species; and this was where I learned of my mistake in deciding not collecting the specimen! All differences, mainly the genitalia of each sex, require microscopic examination. However, still excited that I must surely have found the first Midlands record of *H. nobile* based on its presence alongside nests of its only known host, I emailed my images to Steven Falk. He replied that because of the considerable expansion of range this record would represent it was impossible to confirm without a specimen.

So, the salutary lesson learned is; always collect specimens of potentially interesting species, even though it's tempting to think that identification to species level should be a straightforward matter!

I shall be returning to Devil's Spittleful at the same time next year to coincide with the peak season of *Cerceris arenaria* and hopefully collect one for confirmation that *H. nobile* is established here.



Cerceris arenaria (female) at Devil's Spittleful on 30 June 2018 with a weevil prey item. This species stocks its nest burrows with several species of medium to large weevils to provide food for the larva. © K.McGee.

References

- Baldock, D. W. & Hawkins, R. D. 2016. *Hedychrum nobile* (Scopoli): A jewel wasp new to Britain and distinct from *H. niemelai* Linsenmaier (Hymenoptera: Chrysididae). *British Journal of Entomology and Natural History* . 29: 2016
 BWARS *Species search* [on-line] <http://www.bwars.com/> [Accessed 26.9.2018]
 NBN Atlas *Species search* [on-line] <http://www.nbnatlas.org/> [Accessed 26.9.2018]

Images

01. *Hedychrum* sp at Devil's Spittleful on 30 June 2018. © K.McGee.

02. *Hedychrum* sp at Devil's Spittleful on 30 June 2018. © K.McGee.

03. *Cerceris arenaria* (female) at Devil's Spittleful on 30 June 2018 with a weevil prey item. K. McGee.