

***Nomada alboguttata* Herrich-Schäffer, 1839 new to the British Isles and *Nomada zonata* Panzer, 1798 first record for mainland Britain.**

Christopher Kirby-Lambert 11 Manton, Peterborough, PE3 9YT

Email: nature\_21290@hotmail.com

Over the course of summer 2016 I have spent some time recording on a private site in East Kent (VC15). Whilst on the site I collected two unusual specimens of *Nomada*. The first individual was a female collected on the 11<sup>th</sup> of April 2016 during general sweeping in an area of short ruderal vegetation bordered by scrub. It keyed easily to *Nomada zonata* Panzer, 1798 in Falk (2015) and comparison with images on Steven Falk's flickr site (<https://www.flickr.com/photos/63075200@N07/sets/72157649316314657/>) showed a very close match. Several colonies of the host species *Andrena dorsalis* Kirby, 1802 were present on the site. The specimen was shown to Steven Falk, who confirmed the determination by comparison with the series of *N. zonata* in his collection.



Figure 1. *Nomada zonata* female - general habitus of the East Kent specimen.

*N. zonata* was added to the British checklist on the basis of the discovery of a population on Jersey in 2011 by Tim Ransom, but this is the first record of *N. zonata* on the British mainland. It is probably a recent colonist on Jersey (Falk, pers. comm.). In Europe it seems that *N. zonata* is currently increasing its range. In the Netherlands the species was first recorded in 2009 in the South-East and has since spread across the entire country. It seems likely that *N. zonata* will be found more widely in the South of Britain and should be looked out for in areas of suitable habitat, especially in the South-East. Determination and ecological details of *N. zonata* can be found in Falk (2015).

A second, and rather more surprising, discovery was made on the 7<sup>th</sup> of June 2016, when an unusual, relatively large, pale red *Nomada* was seen investigating *Andrena barbilabris* Kirby, 1802 nest burrows in a small (c. 6x2m) stretch of sand piled at the edge of an area of hard standing and rubble. Upon capture it proved to be a rather worn looking female of medium size with red markings on the scutum and an entirely pale red abdomen marked by cream flecks towards the sides of the tergites. It keyed easily to *Nomada baccata* Smith, 1844, in Falk (2015). The specimen clearly displayed the large “bear claw” spines at the apices of the hind tibia that are a distinguishing feature of *N. baccata* and not shared with any previously known British *Nomada*. However, *N. baccata* is described as having a maximum forewing length of 5mm, my individual was a comparative giant with a forewing length of 7.5mm. Furthermore, *N. baccata* is an insect of heathlands and the host species is *Andrena argentata* Smith, 1844, also restricted to heathlands and certainly not present on the site of capture. My individual, on the other hand, was closely investigating *A. barbilabris* nest holes. Reference to the excellent website detailing many of the wild bees of the Netherlands (<http://www.wildebijen.nl/beeguide.html>) suggested *Nomada alboguttata* Herrich-Schäffer, 1839 as a more likely alternative. This is a relatively common bee in the Netherlands and elsewhere in North-West Europe, very similar in general appearance to *N. baccata*, and utilises *A. barbilabris* as a host. The size also presented a closer fit with forewing length given as 7-10mm. Support for this view came from successfully keying it to *N. alboguttata* in Scheuchl (2000). Comparison with *N. baccata* specimens in Steven Falk’s collection confirmed that my specimen was not attributable to that species. After examining the specimen Steven Falk confirmed my identification of *N. alboguttata*.



Figure 2. *Nomada alboguttata* female - general habitus of the East Kent specimen.



Figure 3. *Nomada alboguttata* hind tibia showing distinctive "bear claw" spines.

*N. alboguttata* is very closely related to *N. baccata*. Indeed, the separation of these species appears to have presented something of a taxonomic issue in Europe. It possesses "bear claw" spines at the apices of the hind tibia like those of *N. baccata*, and will key to *N. baccata* in all British keys. No other species in Britain are likely to be confused with it. Taxonomic characters allowing the differentiation of *N. alboguttata* from *N. baccata* are given below.

**N. alboguttata:** Large, FW length 7-10mm, scutellum distinctly raised above the level of the plane of the scutum.



Figure 4. *Nomada alboguttata* lateral view, showing scutellum raised above scutum.

**N. baccata:** Small, FW length c. 5mm (given as up to 6mm in European literature), scutellum on the same level as the plane of the scutum.



Figure 5. *Nomada baccata* lateral view, showing relatively level scutellum and scutum.

Further characters are given in Scheuchl (2000), but comparison of my *N. alboguttata* specimen with British *N. baccata* specimens in the collection of S. Falk suggests that none are entirely reliable.

Any large “red” *Nomada* apparently associating with *A. barbilabris*, or specimens keying through to *N. baccata* from non-heathland habitat should be checked for this species. Given its presence on a relatively tiny patch of suitable habitat it seems likely that this species could occur in other sandy sites supporting colonies of *A. barbilabris* in South-East England.

### **Acknowledgements**

Many thanks go to Steven Falk for confirming my identifications, photographing the specimens and commenting on the draft of this paper. Thank also go to Peter Kirby for comments on the draft of this paper.

### **2018 update**

Since the original discovery of *Nomada alboguttata* in the British Isles S.J. Falk has found a sizeable breeding population on the Kent coast.

### **References**

Falk, S.J. (2015) Field Guide to the Bees of Great Britain and Ireland. Bloomsbury, London and New York.

Wild Bees of the Netherlands website: <http://www.wildebijen.nl/beeguide.html>

Scheuchl, E. (2000) Illustrierte Bestimmungstabellen der Wildbienen Deutschlands und Österreichs. Band I: Anthophoridae. Landshut: Preisinger KG.