

A new spider family for Britain - the Mysmenidae

The discovery of new spider species in Britain is a fairly regular event but for the first time for over half a century we now have a completely new family of spiders for the country. The discovery of *Trogloneta granulum* Simon, 1922 at two sites in Wales has been outlined elsewhere by Peter Harvey (SRS News 79; 2014).

The Mysmenidae are a group of tiny orb-web spiders, in Britain most closely related to the Theridiosomatidae. According to the World Spider Catalog, The family includes only 23 genera and 123 species worldwide. Most of these occur in tropical regions but four species are known from Europe (<http://www.araneae.unibe.ch>).

These minute spiders can be distinguished from the related families Anapidae, Synsphyridae, Symphytognathidae and Theridiosomatidae (all found in Europe) by the presence of a metatarsal clasping spine on the first legs and by modified setae on the tarsi. Males have the head region elevated, in this respect resembling minute *Dipoena* species with which they might be confused. More information on the family, including excellent micro-photographs illustrating salient morphological features can be found on the Tree of Life website at <http://tolweb.org/Mysmenidae/2803>.

In Europe, *T. granulum* has been found in France, Italy, Germany, Austria, the Czech Republic, Slovakia and Poland but is apparently extremely rare, being recorded from less than a dozen sites in total. However, its minute size (0.9 - 1.1 mm) means that it is probably significantly under-recorded, a view which is perhaps supported by its independent discovery at two British sites within two years of each other. The type locality is Grotte de la Finon, a cave in Ardeche but it has occurred most frequently in central Europe in scree slopes, often in woodland. In general, it appears to be a species of moist, relatively small dark spaces where it spins its tiny horizontal orb-web.

In Britain *T. granulum* it is known from two females from different sites in Wales. The first was identified by Peter Harvey, the National Spider Recording Scheme Organiser, and collected in March 2012 by Simon Warmingham from beneath a rock in woodland in the Bishopston Valley on the Gower peninsula in South Wales. Although at low altitude compared with the continental European sites, the woodland is on limestone and features both caves and abandoned mines which could provide suitable habitat. On hearing news of the discovery, BAS Newsletter Editor, Richard Gallon, realised that a single female specimen he had collected from the more typical scree slope habitat of a slate waste tip near Nantlle in North Wales, in October 2012 was also *T. granulum*.

What is the likelihood of this species being found elsewhere in Britain? Its tiny size obviously presents challenges for surveyors but also means that it may have been easily overlooked. Although North Wales is the most northerly location Europe, from what we now know of its requirements there seems no reason why it could not occur anywhere in the highland zone, including Scotland and South-West England as well as Wales. Are there also other minute mysmenids waiting to be discovered in Britain?

The two species of *Mysmena* (*M. leucoplagiata* and *M. gibbosa*) are both southern European with distributions essentially limited to the Mediterranean zone. On the other hand, *Mysmenella jobi* has been reported from a number of localities in Germany and a single locality in Holland. Its presence in the UK certainly cannot be ruled out.

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