

## Book Review

### The Lithiomorpha of the continental Iberian Peninsula (Chilopoda): new data, description of a new species of the genus *Lithobius* (s.str.), checklist and identification key

By Étienne Iorio & Karin Voigtländer

*Memoires de la Societ  t   Linn  enne de Bordeaux* **18**: 1-98 (2019)



Iberia, along with Morocco forms the Baetic-Rifan complex, one of the ten hotspots for plant biodiversity in the Mediterranean area and one of the two main centres of biodiversity of the Mediterranean as well as the Iberian Peninsula being a hotspot for both vertebrates and invertebrates according to the two authors and this includes the subterranean fauna. Such a high level of diversity (and endemism) may well be due to the area remaining ice-free during glacial periods and providing refugia for northern and central European species.

In relation to the lithobiid centipedes, some 37 taxa are reported from Spain and a new troglobitic species is described. Such high levels of biodiversity raise two key issues, the importance of recording such

diversity and the potential difficulties in separating and clarifying the characteristics of the species and of, as the authors have done, providing an identification key. Everyone who has looked at lithobiomorphs, even the small number of species recorded in Britain and Ireland, must be aware of the sometimes apparently subtle characters that need to be looked at and, of course, unlike the situation in most insects, millipedes and woodlice, reference to the ‘gonopods, whether male or female, is of very limited value in many, if not most cases.

After an introduction which includes reference to earlier studies, notes are given for each of the species, synonyms, locations found, type location and, as appropriate, other comments. Of the 53 species/subspecies of the subgenus *Lithobius* included in the checklist, those familiar to British students of centipedes are *Lithobius borealis*, *L. calcaratus*, *L. forficatus*, *L. lapidicola*, *L. macilentus*, *L. melanops*, *L. muticus*, *L. piceus piceus*, *L. pilicornis*, *L. tricuspis* and *L. variegatus variegatus*. The last of these is distinguished from *L. variegatus rubiceps*, is illustrated, and also features on the front cover of the volume. Two of the listed species are marked as only likely to occur in the area, including *L. peregrinus*. In addition there are five species of subgenus *Monotarsobius* (including *L. crassipes* – although these might refer to *L. crassipesoides*) and two of *Sigibius* (including *L. microps*). Of the genus *Eupolybothrus* with its numerous and irregularly arranged coxal pores, the only species, rare and based on old records from two southern provinces, is *E. nudicornis*. Two hemicopids, *Lamyctes africanus* (not yet known in Iberia) and *L. emarginatus* are also included in the key.

The key following the notes is of the familiar pattern but, as with some other works by the first author, includes colour photographs of characteristic features making it, at least potentially, much more user-friendly than many of the keys we have all used at various times. There are also illustrations in the introductory remarks showing the arrangement of tergites, a nice picture, appropriately annotated, of the ventral spinulation of *Lithobius validus* (which should be useful to anyone who struggles to sort out what we mean by VpF, VmF and VaF and suchlike) and the posterior end of *L. pilicornis* showing 15VaC.

Written, in English, by authors from France and Germany, about species from Spain and Portugal, congratulations are due for this most useful contribution to our knowledge of the European chilopod fauna.

Tony Barber