



## ***Algerophilus*, a neglected lineage of Western Mediterranean centipedes (Chilopoda: Geophilidae)**

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### **Abstract**

Among the diverse geophilomorph centipedes inhabiting the Mediterranean region, we recognise and describe a morphologically distinct lineage that has long been misunderstood and neglected. This lineage, which deserves to be treated as a distinct genus (*Algerophilus* Brolemann, 1925), is broadly similar to *Geophilus* Leach, 1814 and *Tuoba* Chamberlin, 1920, but differs from them mainly in the more elongate head and forcipular segment and the coxal pores clustered into elongated pouches. All published and new records are from Western Mediterranean regions including the Baetic Mountains, Ibiza, the Atlantic Moroccan coastal plain, and the Tell Atlas. A single species *A. hispanicus* (Meinert, 1870) (= *Nesogeophilus mateui* Machado, 1953, syn. n.) is recognised on morphological characters, but some geographical variation has been detected in the relative elongation of antennae and forcipules and in the number of trunk segments. The evolutionary distinctness and geographical distribution highlighted here for *Algerophilus* mirror those of other divergent lineages of soil arthropods that are endemic to the Western Mediterranean region.

**Key words:** *Algerophilus hispanicus*, *Nesogeophilus mateui*, Geophilomorpha, Geophilidae, Mediterranean region

### **Introduction**

The continental lands surrounding the Mediterranean Sea are well known for hosting a remarkable diversity in many groups of terrestrial organisms, especially plants and soil arthropods (Médail & Quézel 1997; Blondel & Aronson 1999; Myers & Cowling 1999). For these groups, the Mediterranean Basin is a major hotspot not only in terms of species richness and genetic variation, but also because it maintains distinct evolutionary lineages that contribute to a remarkable eco-morphological diversity. This pattern is now emerging also for the Chilopoda Geophilomorpha: the Mediterranean fauna encompasses almost one sixth of the total number of species in the world (more than one thousand); moreover, more than half of the species and genera living in the Mediterranean region are endemic or almost endemic to this region (Bonato & Minelli 2009).

Our understanding of the actual diversity of Mediterranean Geophilomorpha is still very incomplete and the taxonomic framework in use is far from satisfactory. Recently, however, a reassessment of the circumscription and the internal diversity of major genus-level lineages, as well as the discovery of still unrecognised lineages (e.g., Bonato & Minelli 2008; Bonato *et al.* 2008), have contributed to a more accurate picture allowing the inference of some biogeographic processes that may have occurred in the region (Bonato & Minelli 2009; Simaiakis 2009).

In this paper, we report on the reappraisal of a morphologically distinct lineage of geophilomorphs that inhabits the Western part of the Mediterranean region, but has remained neglected up to now. In fact, representative specimens had been collected long ago and two species have been named for them (Meinert 1870; Machado 1953). The older of the two species has been even distinguished in a distinct genus *Algerophilus* (Brolemann 1925). However, the taxonomic position of both species has been invariably misunderstood until now, preventing the recognition of the actual distinctness of this lineage.