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Review of the millipede genus *Hyleoglomeris* Verhoeff, 1910 in China, with descriptions of new species (Diplopoda, Glomerida, Glomeridae)

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Abstract

China is shown to currently support 23 species of the large, basically warm temperate to tropical Asian genus *Hyleoglomeris*, all keyed and mapped, including 15 new ones: *H. tiani* **sp. n.**, *H. xia* **sp. n.** and *H. youhao* **sp. n.** from Hunan Province, *H. wuse* **sp. n.**, *H. nigu* **sp. n.**, *H. gudu* **sp. n.** and *H. yinshi* **sp. n.** from Guizhou Province, as well as *H. qiyi* **sp. n.**, *H. lii* **sp. n.**, *H. heshang* **sp. n.**, *H. xueju* **sp. n.**, *H. mulunensis* **sp. n.**, *H. mashanorum* **sp. n.**, *H. curtisulcata* **sp. n.** and *H. kunnan* **sp. n.** from Guangxi Province. *Hyleoglomeris eusulcata* Golovatch, Geoffroy & Mauriès, 2006 has been recorded and redescribed from a new, near-topotype sample. Two new species groups are being proposed: the *venustula*- and the *albicorporis*-group. The status of *Nearctomeris* Wesener, 2012, a monobasic genus from the eastern USA, is questioned viz-à-viz *Hyleoglomeris*, albeit no formal synonymy is being proposed.

Key words: diplopods, cave, *Hyleoglomeris*, new species, key, China

Introduction

The millipede genus *Hyleoglomeris* Verhoeff, 1910 is one of the largest and certainly the most widespread in the entire order Glomerida. At the moment, this genus contains 74 nominate species, ranging from Greece in the West to Japan in the East, and the Sunda Archipelago (Sulawesi) in the Southeast. In Greece and northwestern Anatolia, the range slightly overlaps with that of the primarily European and even more speciose genus *Glomeris* Latreille, 1803. Both these genera are deemed quite closely related, at least belonging to the same subfamily Glomerinae Leach, 1815 (see Hoffman 1980), even though Mauriès (2006) places them in different tribes. The main distinction between *Glomeris* and *Hyleoglomeris* lies in the considerably less strongly differentiated caudofemoral process on male leg-pair 19 (= telopods) in the former genus (Mauriès 1971). In *Hyleoglomeris*, this outgrowth has become enlarged, set at nearly a right angle to the femur and directed more ventrally than mesally, with the tip supporting a membranous sac. *Glomeris* appears to be simpler, likely more basal, in that its species are normally larger in size, with less numerous striae on the second tergite (often referred to as a thoracic shield, in any event to be treated only as a highly conventional term), in possessing a less strongly reduced male leg-pair 17, and usually in having no caudal tubercle at the base of the tibial outgrowth of the telopod. Interestingly, the westernmost species group of *Glomeris*, which is definitely monophyletic and restricted to the Canary Islands, contains a transitional series of forms with a more or less expressed "hyleoglomerization syndrome" (Golovatch & Enghoff 2003). In species such as *G. alluaudi* Brölemann, 1901, *G. vicentae* Golovatch & Enghoff, 2003 and *G. hierroensis* Golovatch & Enghoff, 2003, the caudofemoral process of the telopods tends to be increased in size, positioned ventrad at an angle to the femur, and supplied with a membranous sac on top. Furthermore, some of these taxa are among the smallest in the genus.

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