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Revision of the genus *Draconarius* Ovtchinnikov 1999 (Agelenidae: Coelotinae) in Yunnan, China, with an analysis of the Coelotinae diversity in the Gaoligongshan Mountains

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Abstract

A total of 71 species of the spider subfamily Coelotinae are recorded from Yunnan, China. The seven species that belong to the *Coelotes pseudoterrestris* species group were revised by Wang *et al.* (2009). Three species of the genus *Pireneit-ega*, one species of the genus *Platocoelotes* will be studied in a future revision of the genera. The rest of the 60 *Draconarius* species are described in this study, including 26 new species. All the new species were collected during a 10 year inventory of the Gaoligongshan Mountains in western Yunnan by the California Academy of Sciences and the Hunan Normal University: *Draconarius adnatus* **sp. nov.** (♂♀), *D. anceps* **sp. nov.** (♀), *D. catillus* **sp. nov.** (♂), *D. curvus* **sp. nov.** (♀), *D. duplus* **sp. nov.** (♀), *D. euryembolus* **sp. nov.** (♂), *D. gigas* **sp. nov.** (♂), *D. guoi* **sp. nov.** (♀), *D. improprius* **sp. nov.** (♀), *D. kavanaughi* **sp. nov.** (♂), *D. laticavus* **sp. nov.** (♀), *D. latusincertus* **sp. nov.** (♂♀), *D. levyi* **sp. nov.** (♀♂), *D. longlingensis* **sp. nov.** (♂), *D. mikrommatos* **sp. nov.** (♀), *D. olorus* **sp. nov.** (♀), *D. paraspiralis* **sp. nov.** (♂♀), *D. pseudoagrestis* **sp. nov.** (♂), *D. pseudospiralis* **sp. nov.** (♂♀), *D. quattour* **sp. nov.** (♀), *D. renalis* **sp. nov.** (♀), *D. spiralis* **sp. nov.** (♂♀), *D. tangi* **sp. nov.** (♂), *D. tridens* **sp. nov.** (♂), *D. xuae* **sp. nov.** (♀), and *D. yani* **sp. nov.** (♀). Five species are transferred from *Coelotes* to *Draconarius*: *Draconarius degeneratus* (Liu & Li 2009) **comb. nov.**, *D. introhamatus* (Xu & Li 2006) **comb. nov.**, *D. laohuanglongensis* (Liu & Li 2009) **comb. nov.**, *D. noctulus* (Wang, Yin, Peng & Xie 1990) **comb. nov.** and *D. uncatus* (Liu & Li 2009) **comb. nov.** The males are described for the first time for *D. capitulatus* Wang 2003, *D. pseudobrunneus* Wang 2003 and *D. pseudocapitulatus* Wang 2003. Significant morphological variation in the epigynum and vulva was found in some relatively widespread species, particularly the *D. incertus* species group, although the males show relatively consistent palpal morphology. Some *Draconarius* species placement remains uncertain, we prefer to leave them in this genus for now. Gaoligongshan Coelotinae is found to have high levels of species diversity and endemism, and is similar to the species from central and southern China, Himalayas and Thailand. In addition to many species with their own unique characteristics, members belonging to seven species groups are recognized from Gaoligongshan, including *Coelotes pseudoterrestris* group species from Yunnan and Thailand; *Draconarius spiralis* group species endemic to Gaoligongshan; *Draconarius incertus* group species from southwestern China; *Draconarius lutulentus* group species from the Himalayas to central and southern China; *Draconarius laticavus* group species from Himalayas and Yunnan; *Draconarius gurkha* group species from Himalayas and Yunnan; and *Draconarius terebratus* group species from Yunnan. But no *Draconarius venustus* group species, which are widespread in East Asia, has been collected from Gaoligongshan. A key to *Draconarius* from Yunnan is provided.

Key words: *Draconarius*, new species, Gaoligongshan Mountains, Biodiversity