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**Unexplored richness: discovery of 31 new species of
Giant Pill-Millipedes endemic to Madagascar,
with a special emphasis on microendemism
(Diplopoda, Sphaerotheriida)**

THOMAS WESENER



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Abstract

Thirty-one new species of giant pill-millipedes (order Sphaerotheriida) endemic to Madagascar are described: *Zoosphaerium haackeri* n. sp., *Z. album* n. sp., *Z. discolor* n. sp., *Z. mitoho* n. sp., *Z. pulchellum* n. sp., *Z. endemicum* n. sp., *Z. xerophilum* n. sp., *Z. aureum* n. sp., *Z. pseudopriapus* n. sp., *Z. pseudoplatylabum* n. sp., *Z. solitarium* n. sp., *Z. tsingy* n. sp., *Z. corystoides* n. sp., *Z. broelemanni* n. sp., *Z. amabile* n. sp., *Z. trichordum* n. sp., *Z. smaragdinum* n. sp., *Z. ambrense* n. sp., *Z. isalo* n. sp., *Z. bilobum* n. sp., *Z. tampolo* n. sp., *Z. ignotum* n. sp., *Z. tainkintana* n. sp., *Z. viridissimum* n. sp., *Z. denticulatum* n. sp., *Z. pseudoblandum* n. sp., *Z. micropiligerum* n. sp., *Z. pseudopiligerum* n. sp., *Z. analavelona* n. sp. and *Z. fisheri* n. sp., and *Microsphaerotherium anjozorobe* n. sp.. Twenty-eight of the *Zoosphaerium* species already fit into established species-groups. A key to all 55 recognizable Malagasy Sphaerotheriida species is given. Forty-two of the 55 giant pill-millipede species are ecosystem endemics, while 26 are geographically microendemic. The number of microendemic species is disproportionately distributed among Malagasy ecosystems. All 13 species restricted to the montane rainforest as well as all five species restricted to the Eastern littoral forest are microendemic. On the other hand, only two out of seven dry forest species, one out of seven rainforest species and one out of five spiny forest species are microendemics. A special emphasis is placed on two species endemic to the unique Western rainforest site of Analavelona, which is currently not protected.

Key words: *Microsphaerotherium*, *Zoosphaerium*, Analavelona