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Authors: Kenneth Dumack, Ferry Siemensma, Michael Bonkowski

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ACCEPTED MANUSCRIPT

ORIGINAL PAPER

Rediscovery of the Testate Amoeba Genus Penardeugenia (Thaumatomonadida, Imbricatea)

Running title: Rediscovery of Penardeugenia

Kenneth Dumack^{a,1}, Ferry Siemensma^b, and Michael Bonkowski^a

^aUniversity of Cologne, Terrestrial Ecology, Institute of Zoology, Zülpicher Str. 47b, 50674 Köln, Germany

^bJulianaweg 10, 1241VW Kortenhoef, Netherlands

¹Corresponding author; fax +49-(0)221-470-5038

e-mail kenneth.dumack@uni-koeln.de (K. Dumack).

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The genus *Penardeugenia* DEFLANDRE 1958 accommodates a single species which was described as *Pamphagus bathybioticus* PENARD 1904. Although this species seems to be well characterized in its description, it has never been recorded again. Despite its possession of silica scales, it was assigned to the scale-lacking Chlamydophryidae (Thecofilosea, Cercozoa). We here present morphological data of three isolates. One of them was successfully cultured and enabled the amplification of its SSU rDNA sequence. Molecular analyses revealed the evolutionary origin of *Penardeugenia* in the scale-bearing flagellate class Thaumatomonadida, which is backed up by morphological similarities of their scales. We consider *Penardeugenia* to represent a closely related genus to *Thaumatomastix*, which apparently lost its ability to form flagella. We describe two new species from Germany, *P. huelsmannii* and *P. hausmannii*.

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