

Eocene phymaraphiniid demosponges from South Western Australia: filling the gap

Andrzej Pisera, Maria Aleksandra Bitner, and Jane Fromont

Acta Palaeontologica Polonica 68 (2) 2023: 261-272 doi:10.4202/app.01052.2023

We describe two new genera of phymaraphiniid lithistid sponges *Twertupia* gen. nov. and *Pickettispongia* gen. nov. from the upper Eocene Pallinup Formation of South Western (SW) Australia based on new, rich and very well preserved material. Type material of these two genera, earlier described from poorly preserved material, were originally attributed to *Thamnospongia subglabra* and *Stachyspongia neoclavatela* (in case of species of *Twertupia*), and to *Discoderma tabelliformis* (case of species of *Pickettispongia*). This is the first record of bodily preserved phymaraphiniid sponges from Eocene rocks, as well as from the southern hemisphere. We discuss extant and fossil representatives of Phymaraphiniidae and their geographical distribution, concluding that the present day occurrences of these sponges are the result of a much larger Mesozoic Tethyan distribution.

Key words: Lithistid sponges, Demospongiae, Phymaraphiniidae, Eocene, extant, Australia.

Andrzej Pisera [apis@twarda.pan.pl]; ORCID: <https://orcid.org/0000-0001-7112-6063>
] and Maria Aleksandra Bitner [bitner@twarda.pan.pl]; ORCID: <https://orcid.org/0000-0002-2864-2967>
], Institute of Paleobiology, Polish Academy of Sciences, ul. Twarda 51/55,
00-818 Warszawa, Poland. Jane Fromont [janefromont@iinet.net.au
]; ORCID: <https://orcid.org/0000-0002-8887-4452>], Western Australian Museum, Perth, Australia.

This is an open-access article distributed under the terms of the Creative Commons Attribution License (for details please see creativecommons.org), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

 [Full text \(2,333.5 kB\)](#)