{rokbox title=|Maps of the studied area :: Image: Authors| thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-caves-seamounts-diversity-sponges-balearic-islands-diaz-et-al-2024-thumb.jpg|}images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-caves-seamounts-diversity-sponges-balearic-islands-diaz-et-al-2024.jpg{/rokbox}

Julio A. Díaz, **Francesc Ordines**, **Enric Massutí** and Paco Cárdenas, 2024. **From caves to seamounts: the hidden diversity of tetractinellid sponges from the Balearic Islands, with the description of eight new species**

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Abstract: The sponge fauna of the Western Mediterranean stands as one of the most studied in the world. Yet sampling new habitats and a poorly studied region like the Balearic Islands highlights once again our limited knowledge of this group of animals. This work focused on demosponges of the order Tetractinellida collected in several research surveys (2016–2021) on a variety of ecosystems of the Balearic Islands, including shallow caves, seamounts and trawl fishing grounds, in a broad depth range (0–725 m). Tetractinellid material from the North Atlantic and more than twenty type specimens were also examined and, for some, re-described in this work. All species were barcoded with the traditional molecular markers COI (Folmer fragment) and 28S (C1-C2 or C1-D2 fragment). A total of 36 species were identified, mostly belonging to the family Geodiidae (15 species), thereby bringing the number of tetractinellids recorded in the Balearic Islands from 15 to 39. Eight species from this study are new: *Stelletta mortarium sp. nov.*
,
Penares cavernensis sp. nov., Penares isabellae sp. nov., Geodia bibilonae sp. nov., Geodia microsphaera sp. nov. and Geodia matrix sp. nov. from the Balearic Islands; Geodia phlegraeioides sp. nov.
and
Caminus xavierae sp. nov.
from the North East Atlantic.
Stelletta dichoclada
and
Erylus corsicus
are reported for the first time since their description in Corsica in 1983.
Pachastrella ovisternata
is documented for the first time in the Mediterranean Sea. Finally, after comparisons of type material, we propose new synonymies:
Geodia anceps

as a junior synonym of
Geodia geodina
,
Erylus cantabricus
as a junior synonym of
Erylus discophorus
and
Spongosorites maximus
as a junior synonym of
Characella pachastrelloides
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Keywords: Porifera, Tetractinellida, Integrative Taxonomy, Barcoding, Cryptic species, Mesophotic, Fishing grounds, Marine caves