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eo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-macrofauna-associated-bam
boo-coral-isidella-elongata-cartes-et-al-2022.jpg{/rokbox}

J. E. Cartes, **D. Díaz-Viñolas**, J. M. González-Irusta, A. Serrano, S. Mohamed, A. Lombarte,
2022. [The macrofauna associated to the bamboo coral *Isidella elongata*](#)
[: to what extent the impact on isideidae affects diversification of deep-sea fauna.](#)
Coral Reefs 41, 1273–1284 (2022). <https://doi.org/10.1007/s00338-022-02243-w>

Abstract: Macrofauna associated with the bamboo coral *Isidella elongata* was analysed in the Balearic Basin at depths of 697–1308 m. The diversity of associated macrofauna and the specific associations identified depended on different morphological characteristics of colonies, such as height or density of rami. Species associated with

Isidella

consisted mainly of sessile fauna, such as cnidarians (the actinian

Amphianthus dornhii

and the solitary coral

Desmophyllum dianthu

s) and cirripeds (

Gibossaverruca sp.

). The strongest relationship (commensalism) occurred for the Pontogeneiidae amphipod

Dautzenbergia megacheir

, living attached to colonies of *Isidella* and represented by all population stages from adult

(oostegal) females and males to juveniles. Species-coral relationships between

Dautzenbergia

and bamboo corals (Isididae) are plausible.

Dautzenbergia spp.

showed morphological differences between Atlantic (described by Walker 1897 as “eyes wanting”) and Mediterranean (with well-developed reddish eyes) specimens. This would suggest diversification of this genus, as has been recently suggested for Pleustidae associated with deep gorgonians. The diversity of the macrofaunal community associated with

I. elongata

was higher in the most mature (larger colonies with higher density) fields found NW of Mallorca, with higher colonies than in other parts of the Mediterranean. This was the only site where

Gibossaverruca sp.

(a first Mediterranean faunal record) and

D. dianthus

were collected. These complex associations between macrofauna and deep-water corals may provide arguments to protect these fragile ecosystems as a source of faunal diversity and diversification.

Keywords: Deep corals, Associated fauna, Deep sea, Amphipods, Diversification, Vulnerable species