

## POSTER

The cushion-star *Parvulastra exigua* in South Africa: one species or more?

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The cushion-star *Parvulastra exigua* is a widely distributed member of the temperate intertidal fauna, found along the west and east coasts of Africa, and in Australia. Along the south coast of South Africa, it occurs in sympatry with the endemic *Parvulastra dyscrita*, the two species being differentiated predominantly by gonopore placement. Several recent studies have suggested that there may be additional cryptic species within the *P. exigua* complex in South Africa, based variously on colour morphology, genetic evidence and the differential placement of the gonopores.

Here, we resolve this taxonomic confusion by confirming whether one, or more than one, species are represented within the South African *P. exigua* complex. A total of 346 *P. exigua* and 8 *P. dyscrita* were collected from sites on the west and south-west coasts of South Africa; morphological, anatomical and genetic analyses were performed to determine whether cryptic species and/or *P. exigua* specimens with aboral gonopores were present. Results show that neither cryptic species nor *P. exigua* specimens with aboral gonopores occur at these sites. This study thus refutes previous claims of the existence of aboral gonopores in South African *P. exigua*, and suggests that a single species is represented, although this can occur in a wide range of colour morphs. The distinction between *P. exigua* and *P. dyscrita* is also confirmed, and features separating these two species are clarified and documented