

***Argiope barroisi* Schulgin, 1885, synonym of *Argyrotheca cuneata* (Risso, 1826)**

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Recently, the validity of *Argiope barroisi* quoted under *Megathiris* became questionable in the Brachiopoda database. This species was described by Schulgin (1885) in a study, generally missed in references of almost all authors. Even in the Treatise, his reference appears only in the volume 1 (1997) in the part anatomy.

In Villafranca (Sicily), Schulgin (1885) recorded this species (Fig. 1) rather common in meadows, fixed on the seagrass *Posidonia oceanica*, occasionally on stones, depth until 30 m, and together with another brachiopod species he described under *Argiope kowalevskii*, today a synonym of *Joania cordata*.

In a study just issued, Albano & Stockinger (2019) describe the distribution of *Joania cordata* and *Argyrotheca cuneata* (Fig. 2) in a *Posidonia* meadow at Plakias (Crete, Greece): the first species represents around 65% of living brachiopod individuals. Most living specimens were attached with their pedicle to any hard substrate available such as rhizome fragments, coralline algae, sessile foraminifera, bryozoan colonies, and empty gastropod shells. Previously occurrences in such Mediterranean meadows had already been reported, i.e., by Eugene (1978), Taddei Ruggiero (1985), Evangelisti *et al.* (2011, 2012, 2014) and of course by Schulgin (1885). All authors also mention the occurrence of some valves of *Megathiris detruncata* and *Novocrania anomala*.



Fig. 1. *Argiope cuneata* (3), which size is 3 on 5 mm, and *Argiope barroisi* (4) from Table VIII (facsimile) of Schulgin (1885) (Villafranca, Sicily).

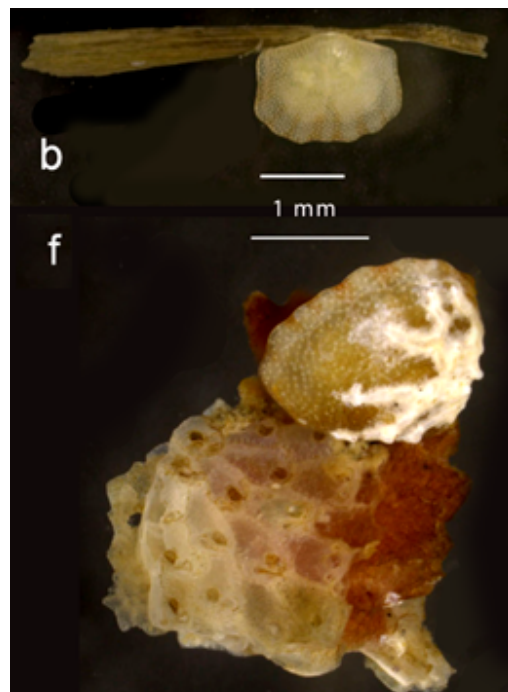


Fig. 2. *Argyrotheca cuneata* (Plakias, Crete, Greece) from figure 3 (b, f) of Albano & Stockinger (2019) (facsimile - under the terms of the Creative Commons Attribution 4.0 International License).

According to Schulgin's (1885) description and his Plate VIII (Fig. 1) when compared to recent surveys on brachiopods in *Posidonia* meadows, *Argiope barroisi* should be considered as a synonym of *Argyrotheca cuneata*. From this later author, the single specimen referred to *A. cuneata* (Fig. 1) had larger size than *A. barroisi* that explain the differences and variations in shell shape and outline: from many of the studies

quoted in References (below), the shell of *A. cuneata* shows rather large variations which have often been used to distinguish various related species - see Bitner (1990) for *A. cuneata*, Alvarez *et al.* (2008) for *J. cordata*. This remark may apply on many if not all brachiopod shells and consequently the shell outline should not be used to identify species at least within a genus.

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[1] This list is not exhaustive, quoting the reprints available in my own library.

[2] In open access : <https://link.springer.com/article/10.1007%2Fs12526-019-00968-6>

[3] In open access : <http://application.sb-roscoff.fr/cbm/article.htm?execution=e6s1>

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