

**Indo-Pacific migrants into the Mediterranean. 61.
Syrnola lendix (A. Adams, 1863) (Gastropoda, Pyramidellidae)**

J.J. VAN AARTSEN & J. GOUD

National Museum of Natural History *Naturalis*, P.O. Box 9517, NL 2300 RA Leiden, The Netherlands;
vanaartsen@hetnet.nl / goud@naturalis.nl

It is shown that the migrant species known as *Styloptygma beatrix* Melvill, 1910, is in fact the species *Syrnola lendix* (A. Adams, 1863), known already from the Red Sea.

Key words: Gastropoda, Pyramidellidae, *Syrnola*, *Styloptygma*, taxonomy, Red Sea, Mediterranean.

One of the more recent Indo-Pacific migrants into the Mediterranean is known under the name of *Styloptygma beatrix* Melvill, 1910. As such it was first identified by Micali & Palazzi (1992: 87, 89 fig. 4) who incorrectly cited the year of publication as 1911 Melvill's publication dates from 26.9.1910, as was indicated for part 3 on the inside of the frontispiece of Volume IX, covering 1910-1911 of the Proceedings. These authors found a single, full-grown specimen of 3.4 mm in height with about 8 whorls, near Iskenderun, Southern Turkey.

More specimens were found along the Israeli coast (Bogi & Galil, 1997: 44, 45 figs. 11, 12). The figured specimens have 7 or 8 whorls but their dimensions cannot be calculated from the magnification given with the figures. Fortunately we obtained some of these specimens on loan and found their dimensions between 3.0 and 3.6 mm. One specimen is figured here (fig. 1).

The species in question is cited by Zenetos et al. (2004: 146, 147) as *Styloptygma beatrix* Melvill, 1911, based on the material of Micali & Palazzi as well as Bogi & Galil. Studies of these specimens as well as one other specimen from the collection of J. van Gemert (from shell grit dredged by the Israel Oceanographic & Limnological Research Institute, Haifa, Israel) caused serious doubt on their identification.

We therefore studied the 3 syntypes of *Styloptygma beatrix* from the British Museum [BMNH 1912.8.16.56-60]. These syntypes (type locality: Persian Gulf, off Mussandam, at 50 fathoms) differed profoundly from the shells we had seen from the Mediterranean. They are much larger, as already mentioned by Melvill (1910: 176), who cites between 9 mm and 6 mm for their height. The number of whorls is about 9 (excluding the embryonic ones) and thus, so far, comparable with the Mediterranean specimens. The shell is "delicately spirally striate" and the growth lines somewhat thickened, causing a microscopic reticulation, whereas the Mediterranean specimens are almost smooth. One of the syntypes is figured here (fig. 2). Unfortunately, the microscopic reticulation, which is clearly present, could not be photographed.

It is evident that the Mediterranean specimens do not belong to *Styloptygma beatrix*. For further identification we focussed on the known Red Sea *Syrnola* species, including *Styloptygma*. Most of the species mentioned in the literature are either much bigger and/or coloured in some way. Only *Styloptygma lendix* A. Adams, 1863 and *Styloptygma nivea* A.



Figs 1-4. *Styloptygma* and *Syrnola* sp. 1, *Syrnola lendix* (A. Adams, 1863), 3.6 mm, from Palmahim, Israel, after Bogi & Galil, 1997 (as *Styloptygma beatrix* Melvill, 1911); 2, syntype of *Styloptygma beatrix* Melvill, 1910, 8 mm; 3, syntype of *Styloptygma lendix* A. Adams, 1863, 3.7 mm; 4, syntype of *Agatha vestalis* Melvill, 1910, 6.3 mm.

Adams, 1870, remained to be studied.

Study of the syntypes of *St. lendix* (fig. 3) [BMNH 1878.1.28.530] (type locality Yobuko, Japan) showed a perfect match with the Mediterranean specimens. They are conspecific with the one figured by Higo et al. (2001: 28 fig. G 4486). A sample of 4 specimens from the Gulf of Suez (A. Adams, 1870: 126) in the MacAndrew collection (held in the University Museum of Zoology, Cambridge, UMZC) proved to be conspecific too.

The syntype of *Styloptygma nivea* A. Adams, 1870 (type locality Gulf of Suez), which is also kept at UMZC, is a badly preserved specimen. The top whorls are missing, but the growth lines are orthocone, whereas these are prosocline in *Syrnola lendix*. Moreover there are five to six spiral incisions at the base, thus differing from *S. lendix* where the base is

totally smooth.

In order to complete our study we also compared the three syntypes of *Agatha vestalis* Melvill, 1910 (type locality Bombay) with the Mediterranean species, because a possible synonymy was suggested by Bogi & Galil (1997: 44). As can be concluded from fig. 4, *A. vestalis* is larger, the shell measures 6.5 mm at 7 whorls, and the growth lines are ortho-cline instead of prosocline as in *St. lendix*. The species from Bombay is therefore quite different.

We agree with Bogi & Galil (l.c.) that the classification of the specimens in the genus *Styloptygma* A. Adams, 1860, is doubtful. In view of the form of the shell and the structure of the mouth we place them in *Syrnola* A. Adams, 1860, which is also in agreement with Higo et al. (2001).

Obviously the Indo-Pacific migrant species cited as *Styloptygma beatrix* Melvill, 1910, has to be called *Syrnola lendix* (A. Adams, 1863).

ACKNOWLEDGEMENTS

Thanks are due to Ms. Kathy Way (BM[NH], London), Dr R. Preece (UMZC, Cambridge), C. Bogi (Livorno) and J. van Gemert (Zeist) who permitted us to study material in their care.

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