

First record of *Palisadia subulata* C.F. Laseron, 1956 (Gastropoda: Prosobranchia: Eulimidae) from the Red Sea*

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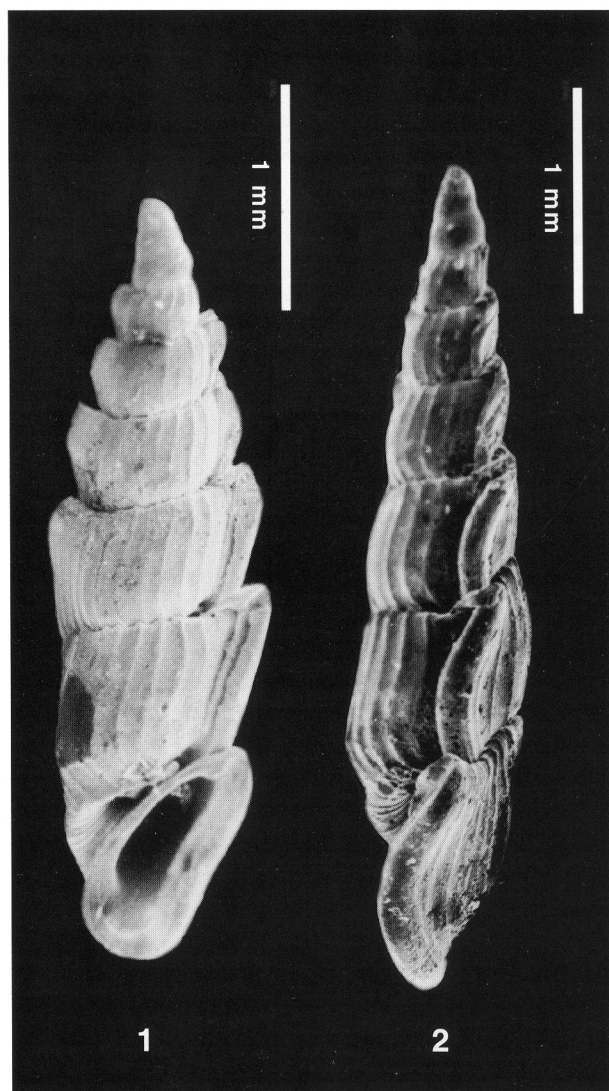
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ABSTRACT. The occurrence of the Indo-Pacific gastropod *Palisadia subulata* C.F. Laseron, 1956, is recorded from Sanganeb Reef, off Port Sudan. The known distribution of the species is considerably extended eastward, including the Red Sea basin.

The Indo-Pacific gastropod *Palisadia subulata* C. F. Laseron, 1956 - type species of *Palisadia* C.F. Laseron by original designation - was originally described and figured on a single shell collected at Christmas Island (Eastern Indian Ocean) (Laseron, 1956: 432; 478, fig. 129). Nearly thirty years later, Ponder (1985: 108; 199; figs. 150a-b) examined a few shells of *Palisadia subulata* from N.E. Australia, illustrating with SEM photographs the teleoconch and the protoconch of a specimen from Gillett Cay, Swain Reef, Queensland. More recently, Shasky (1993: 36) pointed out additional records of this gastropod from the Eastern Indian Ocean and the Western Pacific, figuring a fresh shell by a light photograph.

We have examined three shells of this species (Figs. 1, 2), sorting out a sample of fine grained bioclastic sand collected at Sanganeb Reef, off Port Sudan, (Sudan) 95 m depth. This Red Sea record considerably extends the known range of the species eastward (Fig. 3).

Despite it is not clear whether the holotype was a specimen with soft parts or not, all the further records seem to have been based on empty shells. According to Laseron (1956: 431-432) *Palisadia* would show a *Rissoina*-like shell morphology. Therefore, he placed the genus in the family Rissoinidae - presently ranked as a sub-family of Rissoidae J.E. Gray, 1847, namely Rissoininae Stimpson, 1865 (see e. g., Ponder, 1985: 78). However, Ponder (1985: 108) considered *Palisadia* as rather similar to the eulimid genera *Chileutomia* Tate & Cossmann, 1898, and *Menon* Hedley, 1900, based on general shell shape, albeit characterised by some peculiar feature - i.e. the very heavy varices, the duplicate peri-



Figs. 1, 2. *Palisadia subulata* Laseron, Sanganeb Reef (Sudan) 95 m depth (Scale bars, 1 mm).

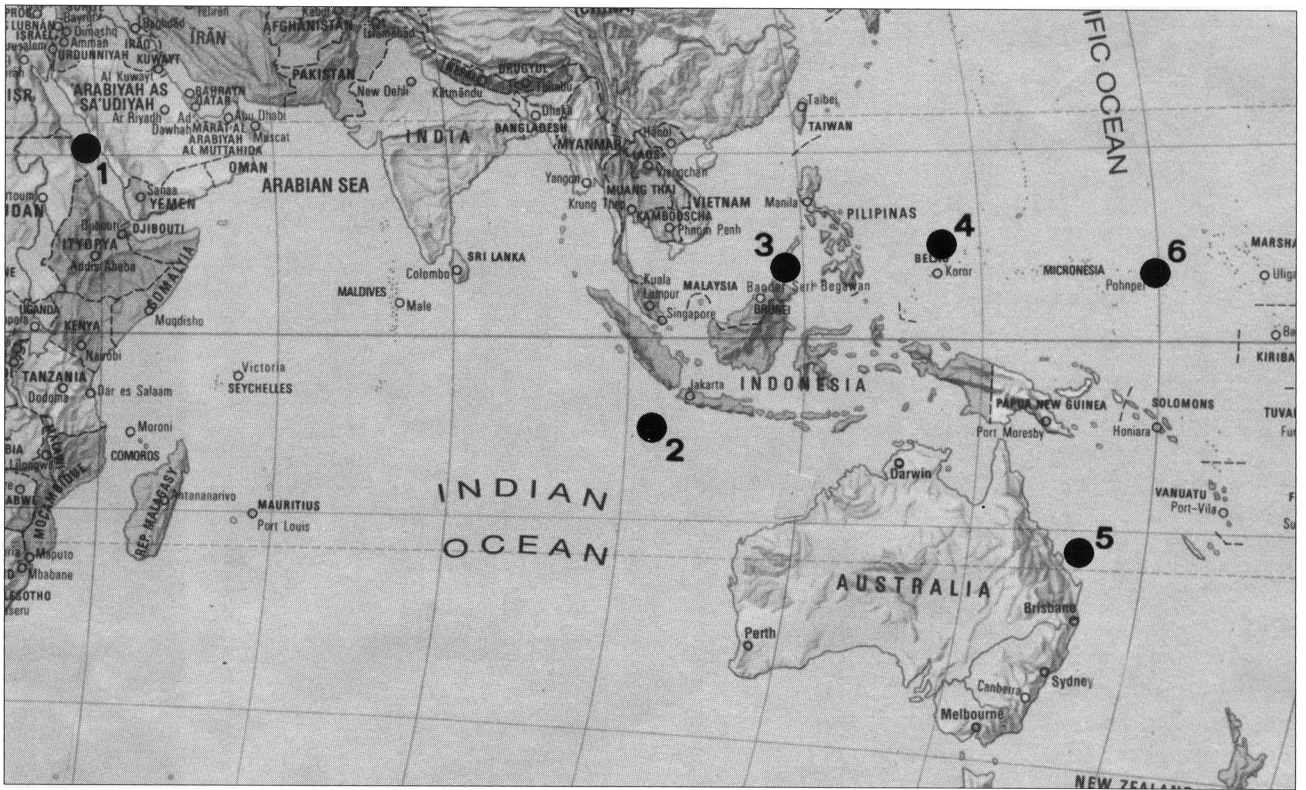
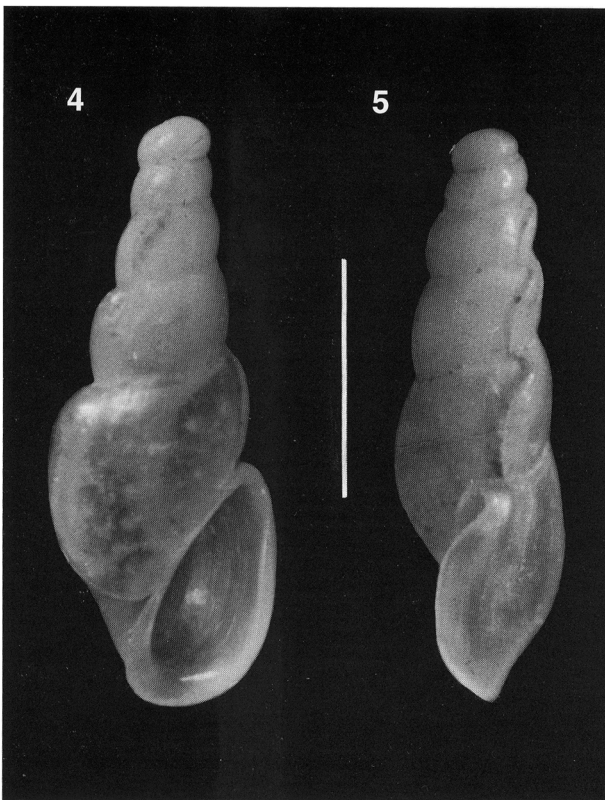


Fig. 3. Known records of *Palisadia subulata* Laseron. 1: Sanganeb Reef, Sudan (present record). 2: Christmas Islands (Laseron, 1956). 3 Sipidian Is., Sabah, Malaysia (Shasky, 1993). 4: Palau Is. (Shasky, 1993). 5: Gillet Cay, Swain Reef, Queensland, (Ponder, 1985). 6: Jokaj pass., Pohnpei Is. (Shasky, 1993).



Figs. 4, 5. *Auriculigerina miranda* Dautzenberg. Capo Palinuro, Italy (Scale bar, 1 mm).

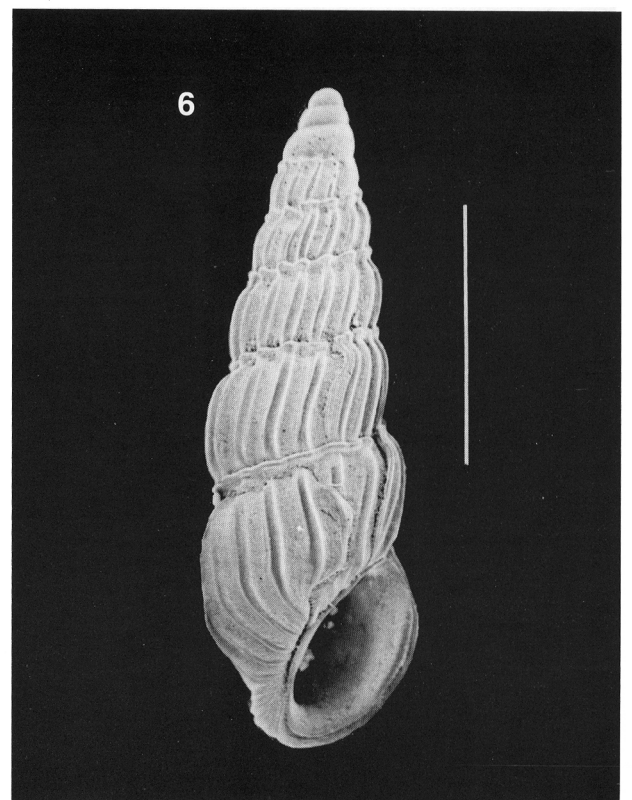


Fig. 6. *Pyramidelloides angusta* (Hedley, 1898). Aqaba, Jordan (Scale bar, 1 mm).

stome, and the sharp axial ribs on the teleoconch.

This interpretation seems more likely than the "rissoid" one and *Palisadia* should be included in the family Eulimidae H. Adams, 1853. Dr. Anders Warén (SMNH Stockholm, in litt., 04.VIII. 1993, and 22.II, 1994) agrees with this, underlining the close morphological relationship of *Palisadia* with *Auriculigerina* Dautzenberg, 1925. *Auriculigerina* has been erected for *A. miranda* Dautzenberg, 1925 (original designation, Dautzenberg, 1925: 7), described from off Tenerife Is., Canary Islands, and still waits for a careful investigation of its anatomy and relationships within the family.

A. miranda ranges in the North-East Atlantic and belongs to the Recent Mediterranean fauna according to a single living specimen (not on the host) from a sample collected at Capo Palinuro (Salerno, Italy). Both *Palisadia subulata* and *Auriculigerina miranda* exhibit protruding varices at about half a whorl from each other.

A possible relationship with *Pyramidelloides* Nevill 1885 - type sp. *Rissoina miranda* A. Adams, 1861, (original designation, Nevill, 1885: 95), widespread in the Indo-Pacific- is also here suggested.

Most members of that genus - recently revised by Warén (1983), Faber (1990) and Moolenbeek & Faber (1992)- show a prominent axial sculpture on the teleoconch, a not very common character for eulimids. Moreover, some species has a strong basal cord. Both these features are evident on *Palisadia subulata*. The protoconchs of *Pyramidelloides miranda* and *P. angusta* (Hedley, 1898) are somewhat similar to that of *Palisadia subulata*. All but few eulimids live as parasites of echinoderms, and most genera, especially in tropical areas, show a remarkable host-specificity (Warén, 1984: 5;19-21).

However, host species are still unknown for both *Palisadia* and *Auriculigerina*, whereas *Pyramidelloides* species are ectoparasites on ophiuroids (Warén, 1983: 273-274; 289).

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