

Notes on South African marine Mollusca
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3. Some remarks on species of *Sunetta* and *Donax* ¹⁾

In the course of my studies on South African Mollusca I met with the following interesting problem concerning the venerid bivalve *Sunetta ovalis*.

The name *Sunetta ovalis* (Sowerby, 1892), for a long time applied to a well-known recent species from the coasts of South Africa, proves to be preoccupied by *Sunetta ovalis* Martin, 1880. The last mentioned species was described originally from Miocene layers in West Java.

Through the courtesy of Dr. A. BROUWER I got the opportunity to examine MARTIN's type specimens, preserved in the Geological

¹⁾ No. 1, vide *Basteria*, vol. 16, p. 6; no. 2, vide *Basteria*, vol. 16, p. 10.

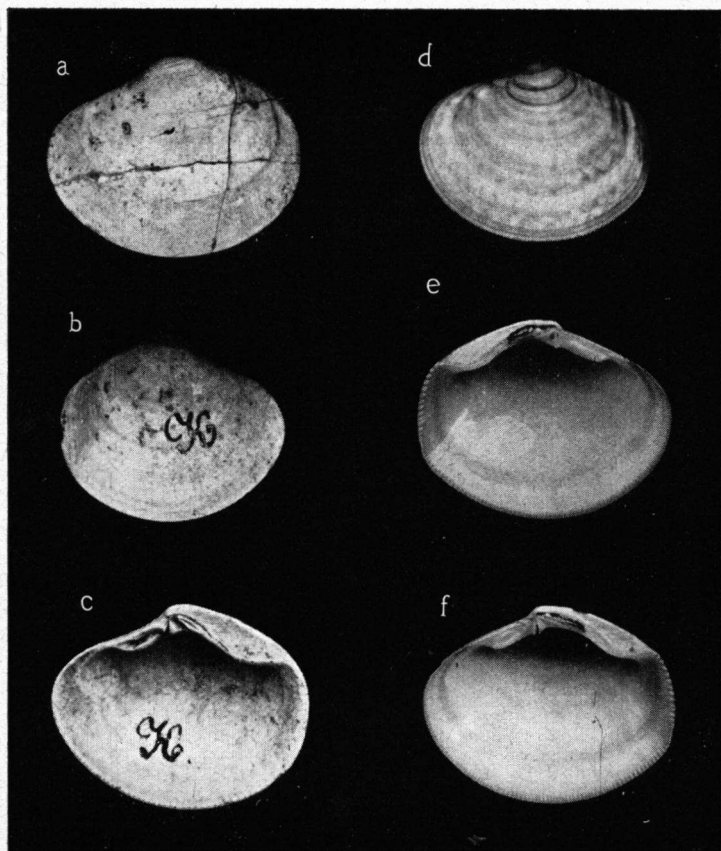


Fig. 1. *Sunetta ovalis* Martin; a, b, c: cotypes, Upper Miocene, West Java, locality K, leg. F. JUNGHUHN; d, e, f: recent specimens from the coast of South Africa.

Institute at Leiden. After a careful examination of specimens of both the recent and the fossil species of *Sunetta* I arrived at the conclusion that these two are identical. The fossil specimens differ from the recent ones by being slightly thicker and more convex only. The comparison of shells belonging to the genus *Sunetta* is rather difficult because the general shape of the specimens changes owing to allometric growth. I discussed this interesting problem with Dr. C. O. VAN REGTEREN ALTENA, who agreed fully with my opinion.

Figures 1a, b, c show three of MARTIN's cotypes²⁾, Upper Miocene, West Java, hill-country in the North of Sindangbaran, crossed by the rivers Tji Sadea and confluents, Tji Kadu and Tji Badak (locality K), leg. F. JUNGHUHN, Geological Institute Reg. no. 6546. The other figures (figs 1d-f) represent recent shells from various localities along the coast of South Africa from the collections of the Rijksmuseum van Natuurlijke Historie, Leiden, of the Zoölogisch Museum, Amsterdam, and of the author. The shape of the shells varies a little, but there can be no doubt that they belong to one species.³⁾

The fact that a species occurs in recent state along the coasts of South Africa and in fossil state in Neogene layers of the island of Java only is striking. *Sunetta ovalis* occurs also in the Lower Pliocene of Java (cf. KOOLHOVEN, 1933); it has, however, never been mentioned as Recent from the seas of South Eastern Asia.⁴⁾ The molluscan fauna from these seas is sufficiently known and has been studied for many years in the Dutch musea; so it is rather unlikely that a venerid, living near the coast, could have been overlooked. Presumably *Sunetta ovalis* Martin was widespread through the basin of the Indian Ocean in earlier days and has survived in South Africa only. The slight differences mentioned above might prove to be of subspecific value, when large series become available for examination.

Furthermore the present is one of the exceptional cases of one species being twice described by two different authors under the same name.⁵⁾

²⁾ The other type specimens are shells not developed from the matrix, or fragments.

³⁾ Dr. VAN REGTEREN ALTENA suggested that in this case two separate species could possibly have acquired identical shells through convergency. The difference between these two species should be anatomical or ecological. It is, of course, impossible to check this hypothesis, as the anatomy of fossil species can not be studied.

⁴⁾ This case is not so exceptional as it seems to be. Some species of *Dentalium* (Scaphopoda) described from the Tertiaries of Europe occur in Recent state in the Indian Ocean (BOISSEVAIN, M., 1906. The Scaphopoda of the Siboga Expedition, Sib. Exp., Mon. LIV, livr. 32). Some corals from the East Indian seas have "a very close resemblance to species, described by SEGUENZA, from the Sicilian and Calabrian Tertiary rocks, and may perhaps prove to be identical with them." (ALCOCK, A., 1902. Report on the deep-sea Madreporaria of the Siboga Expedition, Sib. Exp., Mon. XVI, livr. 7).

⁵⁾ This occurred recently also with an African land mollusc: *Fauxulus agulbasensis* Pilsbry (Nautilus, vol 63, no. 3, p. 102, January, 1952) = *Fauxulus capensis* (Küster) var. *agulbasensis* Barnard (Journ. of Conch., vol. 23, no. 8, p. 260, February, 1952). The type locality for the two nominal forms was the same!

The correct name of this South African bivalve consequently is: *Sunetta ovalis* Martin, 1880. Synonyms are: *Meroë ovalis* Sowerby, 1892; *Sunettina sunettina* Jousseauime, 1891. ⁶⁾

The second case that I want to discuss concerns a species of the genus *Donax*. In most of the modern literature (e.g., TURTON, 1932, BARNARD, 1951) and in some of the older works on South African Mollusca we find the name *Donax exaratus* F. Krauss, 1848. This peculiar species, however, was described already in 1828 by W. WOOD under the name *Donax madagascariensis*. SOWERBY (1866) was the first to point out this synonymy ⁷⁾, but afterwards it seems to have been forgotten.

Another synonym for *D. madagascariensis* is *D. keyii* A. Adams, 1854. This name was recognized as a synonym e.g. by REEVE (1854), SOWERBY (1866), and RÖMER (1869). The situation was not quite clear to the last mentioned author, because he distinguished two different species, viz. *D. exaratus* Krauss and *D. madagascariensis* Wood; but when accurately comparing the two descriptions (RÖMER loc. cit. p. 64 and p. 71) one can not find any evident difference between them. BARTSCH (1915) too was not certain about the status of the species and he placed the two last mentioned names in his list of species dubiae. ⁸⁾

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⁶⁾ Vide FISCHER-PIETTE et FISCHER (1939). According to LAMY (1931) Jousseauime's species is stated to be abundant at Aden. This might refer to an incorrect locality or to an other species.

⁷⁾ Thesaurus vol. III, Plates, *Donax* Plate I, fig. 16.

⁸⁾ Cf. VAN BRUGGEN, 1952, p. 12, note 1.

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