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A new species of *Tonna* Brünnich, 1772 (GASTROPODA: TONNIDAE) from Indonesian and Western Australian waters

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Abstract: A new species of **Tonnidae**, *Tonna oentoengi*, is described from the Indonesian and Western Australian waters, and compared to relevant species of **Tonnidae**

Introduction: Among the many Tonnidae that were acquired from the collection of the late K. Lamprell, a specimen was discovered which could not be identified as *Tonna variegata* (Lamarck, 1822) nor as any of the related species from Australian waters. It wasn't until a lot of 9 from Indonesia (Arafura Sea) were offered to the author in 2004, that it became clear that we were actually dealing with an undescribed species. This species, previously erroneously published in Alan Hinton's Guide to Australian Shells (1978, Page 26, No.7) under the name *Tonna cumingii* (Reeve, 1849), tends more towards *Tonna chinensis* (Dillwyn, 1817) rather than *Tonna cumingii* (Reeve, 1849), the latter two being interrelated.

Tonna oentoengi sp. nov.

Type material:

Holotype: 109.5 mm x 83.15 mm. Deposited in the MHN, Paris,

Catalogue nr. 4260

Paratype 1: 98.9 mm x 79.5 mm (Coll. author)

Paratype 2: Height 84.50 mm (Coll. Bunjamin Dharma, Indonesia) Paratype 3: Height 80.40 mm (Coll. Sofjan Effedi, Indonesia) Paratype 4: 114 mm x 87.1 mm (Coll. D. Monsecour, Belgium)

Type locality: Arafura Sea

Range: Currently known from Indonesia southwards to Western Australia. Not uncommon.

Size: The largest examined specimen measures 120.45 mm (Coll.author)

Habitat: On sand flats between 10 and 50 metres.

Description: Rather rounded, yet elongated, nearly translucent, thin-shelled but sturdy, shiny shell. It has a relatively high spire and is light in weight. There is no real shoulder and only a minute canal along the suture. The protoconch consists of about three smooth, brownish-greyish whorls. There are about three teleoconch whorls which are covered with as little as 18, and up to as many as 23 flat, but rather narrow ribs which are separated with a mere groove rather than the traditional interspaces. Secondary cords do occur occasionally in between the top two or three primary ribs, indicating its growing pattern. The aperture is wide, with the lip thickened on the inside. There is hardly any callus on the columellar area of the body. The fasciole is gently twisted with a smooth surface. The inner side of the fasciole is straight, thus leaving a wide and deep umbilicus. The outer surface is smooth and shiny with a regular pattern of light brown bands on a greyish background. These brown bands can be mottled brown-and-cream, or solid brown. The outer colour is visible on the inside, through a light brown inner colour. The thickened lip on the inside is white, as is the part of the fasciole underneath the umbilicus.

Comparison: Clearly a close relative to *Tonna variegata* as far as general shape is concerned. However, the rib pattern and the shape of the ribs are quite consistent and

very different from that of *T. variegata*. Another difference between the two is the fasciole, whereas the one from *T. oentoengi* is straight on the inner side, and gently twisted, the one of *T. variegata* is clearly bent and more twisted. *T. variegata* shows clear signs of callus, sometimes quite developed, whilst *T. oentoengi* lacks this feature.

When compared to the more northern *Tonna chinensis*, they are easily distinguished, as *T. chinensis* is round in general shape, whilst *T. oentoengi* is elongated. They do indeed resemble one another through a similar colour pattern, but are very different in rib pattern. *T. chinensis* is even thinner and lighter in weight than *T. oentoengi*.

As where *Tonna cumingii* is concerned, it too is more elongated than *T. chinensis*, but shares the typical *chinensis* rib-pattern with it, a feature not to be found in *T. oentoengi*.

Etymology: Named after Steven Oentoeng (Indonesia) for his help in finding the material required in order to distinguish *Tonna oentoengi* from the relevant species of *Tonna*, and proceed to its description. Remark: In the local language, "Oentoeng" means "lucky".

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References:

Bayer C., 1937. Catalogue of the Doliidae in the Rijksmuseum van Natuurlijke Historie

Hedley C., 1919. A review of the Australian tun shells. Records of the Australian Museum, Vol. XII., No. 11

Hinton A., 1972. Shells of New Guinea and the Central Indo-Pacific

Hinton A., 1975. Guide to shells of Papua New Guinea

Hinton A., 1978. Guide to Australian Shells

Iredale T., 1931. Australian Molluscan notes No. 1. Records of the Australian Museum, Sydney, Vol. XVIII

Kiener L.C., 1835. Species général et Iconographie des coquillages vivantes.

Kilburn R., 1971. On some species of Tonnidae, Hipponicidae, Buccinidae, Columbariidae, Fasciolariidae, Psammobiidae and Mactridae (Mollusca) in South African waters. Ann. Natal museum, Vol.20(3) pages 483-497.

Kilburn R., 1986. The family Tonnidae in Southern Africa and Mozambique. Bulletin of the Conchological Society of Southern Africa "The Standloper", Nr. 218.

Kilias R., 1962. Das Tierreich, Lieferung 77, Tonnidae

Küster H.C., 1857. Die Gattungen Cassis, Cassidaria, Oniscia, Dolium, Eburna und Harpa Lamarck J.B., 1822. Animaux sans vertebres. Vol. 7, p. 261

Monsecour D. & Vos C., 2003. Some notes on *Tonna rosemaryae* Vos, 1999. Gloria Maris, 42 (4-5): 104-107

Montrouzier R.P., 1863. Description d'espèces nouvelles (6me article). Journal de Conchyliogolie (11): 74-76

Powell A.W.B., 1938. Additions to the Recent Molluscan fauna of New Zealand. Records of the Auckland Institute and Museum 2(3): 166-170

Reeve L.A., 1849. Monograph of the genus Dolium

Vos C., 1999. A new species of *Tonna*, Brünnich, 1772 from the Gulf of Aden, Gloria Maris, 38 (2-3): 43-47

Summarizing translation into Dutch/ Samenvattende Nederlandse vertaling

Een nieuwe soort van het genus *Tonna* (**Tonnidae**) wordt beschreven van de Indonesische en West-Australische wateren. *Tonna oentoengi* is een duidelijk lid van het *variegata*-complex, en werd geruime tijd door de auteur zo ook aanzien, bij gebrek aan materiaal. Pas toen er meer materiaal vanuit Indonesië beschikbaar werd, werd het duidelijk dat het een nog onbeschreven soort was. Het is zelfs lokaal – zuiden van Java – een vrij frekwent voorkomende soort. Door gelijkenissen met *Tonna chinensis* (Dillwyn, 1817), en de daarmee nauw verwante *Tonna cumingii* (Reeve, 1849) worden ze vaak aangeboden onder die naam. De ribstructuur echter, onthult makkelijk de identiteit van *Tonna oentoengi*.

Plate 1

Tonna oentoengi sp. nov.

1-3: Holotype. Arafura Sea.

4-5: Paratype 1. Arafura Sea.





Plate 2

Tonna oentoengi sp. nov.

- 6-7: A specimen from Broome, Western Australia.

 This was one of the first **Tonnidae** in the author's collection and for a long time listed as *Tonna* sp., until Steven Oentoeng was able to provide more material from the Arafura Sea.
- 8: Paratype 2. Eastern Java.
- 9: Paratype 3. Eastern Java.