

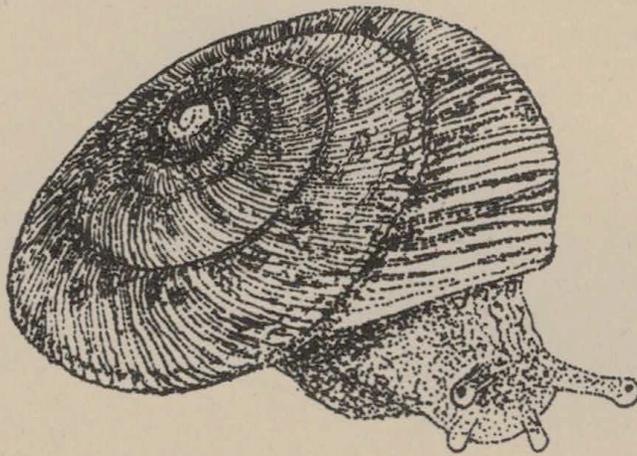
# Schriften zur Malakozoologie

aus dem Haus der Natur - Cismar

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Heft 22

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## An overlooked species of *Conus* (Gastropoda: Conidae).

By  
FELIX LORENZ, Buseck-Beuern.

**Abstract:** A new tiny *Conus* species from various localities of the Pacific Region is described as *Conus mcbridei* n.sp.

Tiny specimens of Cone shells are usually considered juveniles. In recent years, a number of very small species have been identified, among them species that hardly exceed 10 mm in adult length. Radiations of such "Lilliput-Cones" are known from East Africa and Arabia, Indonesia and the Philippines (usually assigned to the genus *Lilliconus* G. RAYBAUDI). Other very small taxa have been named from the Cape Verde Islands, West Africa, and the Caribbean. The new species described in the following is another tiny species rarely exceeding 10 mm in length.

### *Conus mcbridei* n. sp.

#### Material:

Holotype: 10,9 mm x 5,6 mm, Okona Point, N. Sulawesi, coll. HNC 64411  
Paratype 1: 9,7 mm x 4,9 mm, Ujung Lumpatang, W. Sulawesi, coll. LORENZ  
Paratype 2: 10,1 mm x 5,4 mm, Kavieng, New Ireland, coll. MCBRIDE  
Paratype 3: 8,5 mm x 4,4 mm, Pulau Subi Besar, South China Sea, coll. SMNS  
Paratype 4: 10,0 mm x 5,4 mm, Western Oahu, Hawaii, coll. LORENZ  
and 32 further paratypes in coll. LORENZ, 7 in coll. MCBRIDE, 2 in coll. HNC and 2 in coll. Staatliches Museum für Naturkunde, Stuttgart.

**Description:** As there is basically no conchological variability, the following description fits the holotype as well as all adult paratypes. The shell is small, solid, slender and ventricosely conical. The spire is slightly dome-shaped, with a distinctly projecting knob-like protoconch. The shoulder is rounded and very indistinctly coronate. The sides are very slightly convex posteriorly, straight towards the tapering anterior. There are 5-7 fine spiral grooves on the 6-7 postnuclear whorls. The larval shell is smooth, with 2 whorls. The aperture is very narrow posteriorly, widening anteriorly. The body whorl seems smooth and glossy posteriorly, but on magnification shows distinct, narrow spiral grooves all over. In the basal area, there are distinct spiral ribs becoming denser towards the anterior end. Two thirds of the posterior area, including the spire and the protoconch, are white, with a very faint bluish tint towards the middle of the shell. The anterior third (or even more) is distinctly separated optically by a rich black tint. In adult shells there is a whitish band separating the margin of the labrum from the black color of the anterior (fig. 1 D), and a small brown blotch on the labral edge of the anal notch (fig. 1 A). There are conspicuous transverse brown and white lines, the position of which is remarkable: in adult shells, the first of these lines is situated above the black region (fig. 1 B). It is sometimes inconspicuous because of its position within the white part of the shell). The next one lies on the border between the black and the white part of the shell (fig. 1 C), then there are 4 to 6 further lines situated on the spiral ribs decorating the anterior region, inbetween these there may be tiny white spots. The interior reflects the coloration of the outer shell. The periostracum is very thin, smooth and yellowish. The foot of the living animal is lemon yellow, with tiny black spots.

**Habitat and distribution:** *Conus mcbridei* n. sp. was found diving at 15 to 48 m. Most specimens are gathered with grit samples collected at these depths. The holotype specimen was collected by the author, on a night dive at 22 m in 2003. It was crawling on coral rubble conglomerate which had very little other molluscan life.

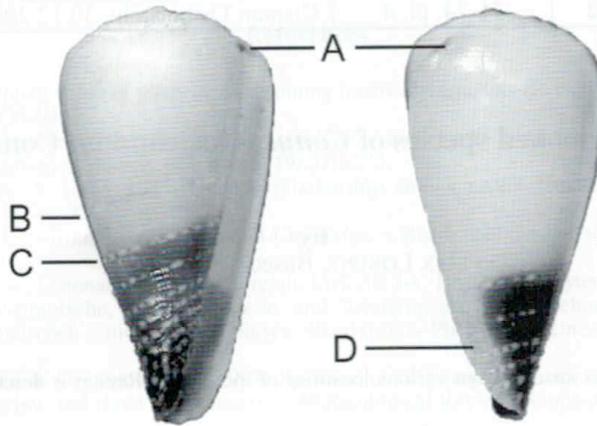


Fig. 1: subtle conchological features of *Conus mcbridei* n. sp.:

A: brown blotch on the labral edge of the anal notch; B, C: transverse brown and white lines;  
D: whitish band separating the margin of the labrum from the black color of the anterior

On five expeditions on board the MV EMPRESS from 2000 to 2005, more than two hundred collecting sites throughout Indonesia were visited. *Conus mcbridei* was found only in five places, but there in relative abundance: The type locality is Okona Point, West coast of Sulawesi (03°04'S 118°46'E). Ujung Lumpatang, W. Sulawesi (02°45'S 118°45'E), Sedimin Reef, Bunguran Is. group, South China Sea (03°24'N 107°50'E), Tenggara Tenggara Reef, off Makassar, South Sulawesi (05°05'S 119°17'10"E), Karimunjawa Island, Java Sea (05°46'S 110°27'E). Numerous dead specimens were found in grit samples taken at a particular spot ("Turtle Reef") at Kavieng, New Ireland by DIETMAR AMON. A single specimen was found at Oahu, Hawaii by DAVID WATTS. It was so far not reported from the Philippines, Micronesia and western Polynesia or anywhere in the Indian Ocean.

**Etymology:** Named in honour of DANIEL MCBRIDE of Pensacola, Florida.

**Discussion:** At first glance, *Conus mcbridei* resembles a miniature *Conus virgo* LINNAEUS 1758. Apart from being considerably larger, the anterior tint of *Conus virgo* is more restricted. Juvenile *Conus virgo* of comparably small size lack this anterior tint and have a distinctly pointed spire. The only species that may be really be confused with *Conus mcbridei* is *Conus sponsalis* HWASS in BRUGUIÈRE 1792, especially its whitish variation *nanus* SOWERBY I 1833, which shares a part of its wide distribution with *Conus mcbridei*. In *Conus sponsalis*, the shoulder is more angular and more distinctly coronate. The spire is taller pointed and the protoconch is distinctly tinted with dark brown. *Conus mcbridei* is more slender, the shoulder is more rounded and hardly coronate, the spire is dome-shaped and the protoconch is white. *Conus sponsalis* is tinted with darker in the very tip of the anterior only whereas the black tinting of *Conus mcbridei* takes more than one third of the shell's length. This coloration is unique in the Conidae. In *Conus sponsalis*, the anterior shows coarse spiral ribs which are narrowly spaced and dotted with white. The spiral ribs of *Conus mcbridei* are finer and more distant, they are decorated with a white and brown band of which one is also found above the dark zone of the shell. The body color of *Conus sponsalis* f. *nanus* is whitish, with a bluish transverse zone in the posterior half (this area is covered with brown dashes in typical *Conus sponsalis*) whereas the posterior of *Conus mcbridei* is plain white in the corresponding area but becomes faintly bluish just above the dark zone.

Interestingly, no specimens of *Conus mcbridei* were found in the collection of the Staatliches Museum für Naturkunde, Stuttgart, where the large collections of BOB DAMOTTA and Dr. DIETER RÖCKEL are deposited. On showing specimens of *Conus mcbridei* to Dr. RÖCKEL, he told me he had never seen anything like it. Apparently, in the study of the Conidae family, a lot more attention needs to be paid to shells that appear to be "just juveniles".

**Acknowledgements:** Many thanks to JANA KRATZSCH, DIETMAR AMON, HUGH MORRISON and SIMONE PFÜTZNER, Dr. DIETER RÖCKEL, HANS-JÖRG NIEDERHÖFER, Dr. VOLLRATH WIESE and DANNY & ILDIKO MCBRIDE.



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#### Explanations of plate 4

*Conus mcbridei* n. sp.

1st row: from left to right:

Holotype, Okona Point, N. Sulawesi, HNC 64411, dorsal, ventral, lateral.

Paratype 3, Pulau Subi Besar, South China Sea, SMNS, dorsal

2nd row: from left to right:

Paratype 1, Ujung Lumpatang, W. Sulawesi, coll. LORENZ, dorsal, ventral, lateral.

Paratype 4, Western Oahu, Hawaii, coll. LORENZ, dorsal

3rd row: from left to right:

Paratype 2, Kavieng, New Ireland, coll. MCBRIDE, dorsal, ventral, lateral, apical

4th row: *Conus sponsalis* f. *nanus*: dorsal, ventral, lateral, view on spire. Kavieng, New Ireland, 10 mm