

***Conus micropunctatus* Rolán & Röckel, 2000**



Holotype MNCN

Type material: Holotype (Figs. 72-73) in MNCN (15.05/39749) (32.5 x 17 mm)

Other material studied: Equimina, Campeona; Limagens; Canoco; Lucira; Bissonga, Baia do Cesar.

Type locality: Lucira, Angola.

Shell description: Moderately small, moderately solid. Last whorl ventricosely conical, slightly pyriform. Outline convex at adapical half; straight to slightly concave (left side) below. Aperture wider at base than near shoulder. Shoulder rounded. Spire of low to moderate height, outline straight to convex. Teleoconch sutural ramps convex, with fine spiral striae. Last whorl smooth and dull, with 8-10 ribs at base.

Periostracum yellow, thin, and smooth.

Ground colour white or bluish white. Last whorl with 30-50 spiral rows of minute brown dots; spire whorls and sometimes base with axial hairlines. Aperture white, occasionally with brown flecks.

Shell morphometry:

L25-35 mm

RD 0.63-0.68

RSH 0.08-0.17

PMD 0.75-0.79

RW 0.10-0.15 /mm

Description of animal (Fig. 108): Colour pinkish with dark dots and spots (ROCKEL & FERNANDES, 1982c). Penis small and curved. Operculum small (Fig. 109)

Radula: In radula sac 51-73 teeth. Tooth (Fig. 139) of vermivorous type, a little bit variable even within populations. Tooth relatively small (mean 52), PA smaller than half of DR; D in S, in one row in the upper part and in two below. F covers about 65-75%.

Radula morphometry:

(n = 8)

D15-28

ABS 45°

LC/DR 32-68

DR/PA 2.0-2.3

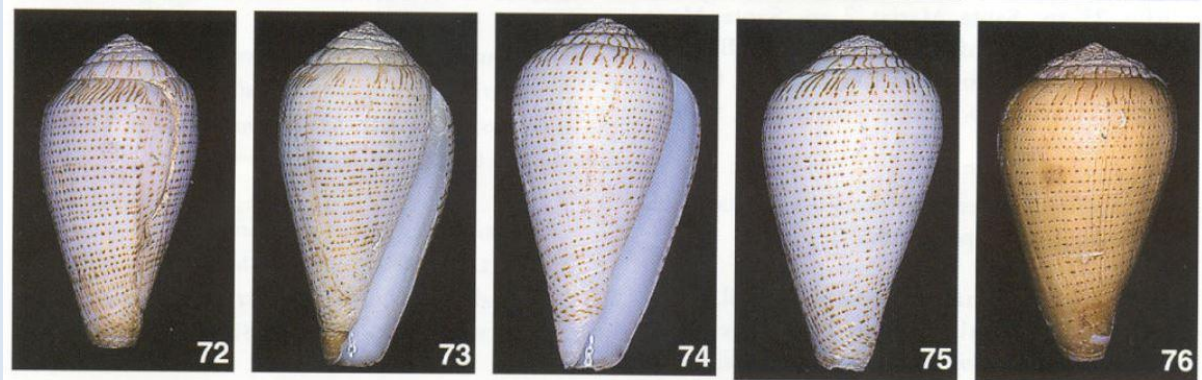
Distribution: From Equimina to Lucira, Angola

Habitat: Under rocks buried in sand, 1-2 m, sympatrically living with *C. bulbus*, *C. neoguttatus*, *C. variegatus*, *C. zebroides*, *C. carnalis*, *C. nobrei*, *C. musivus*, *C. naranjus*, and *C. trovaoui*

Etymology: The name is referred to the pattern of the shell.

Discussion: There are some Angolan *Conus* populations, which might be affiliated to *C. micropunctatus* with respect to their similar shell pattern. One of them, having a smaller size (L < 26 mm) and orange shade, could be an ecotype of *C. naranjus* or another valid species. Its punctated spiral lines are very dense and often fuse in continuous lines. We provisionally separate them from *C. micropunctatus*. *C. micropunctatus* may be similar to *C. neoguttatus* and *C. fuscolineatus*. The relative diameter of similar patterned specimens of *C. neoguttatus* is usually larger (>0.70), the number of dotted spiral lines is fewer (<30) and the distance of dots is larger. *C. fuscolineatus* differs by its brown, sometimes interrupted spiral lines instead of punctated lines and its greenish white ground colour. The radular tooth of *C. neoguttatus* is very different: without D in S and without F. More similar is that of *C. fuscolineatus* but F is usually not noticeable.

Figures:

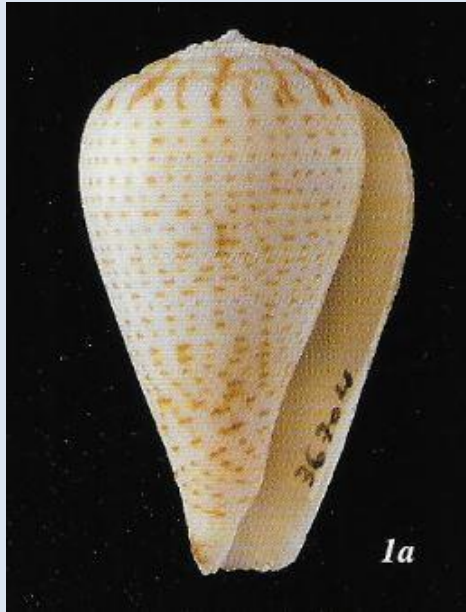
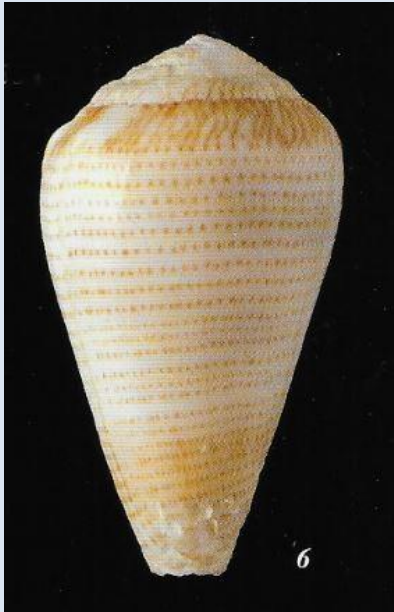


C. micropunctatus n. sp. 72-73: holotype, Lucira, 32.5 mm (MNCN); 74-75: Limagens, 30.1 mm (SMNS); 76: Limagens, 28.0 (CER).

NOTE: The specimens illustrate the typical ventricosely conical shape. Specimen 76 has a broader outline at the shoulder and probably the periostracum persists.

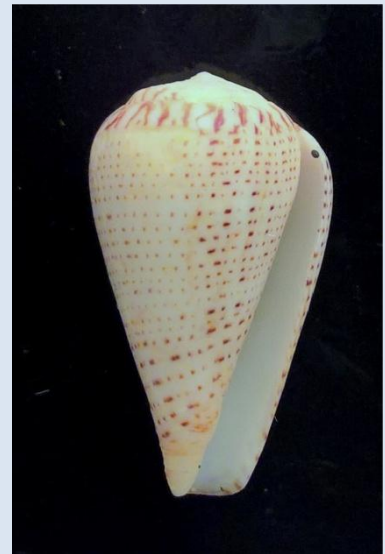
Iconography of West African Conidae.

The scope of the description is widened slightly in the specimens illustrated.



The specimen on the left has a typical pattern of closely set dots and thin hairline markings on the shoulder. The broader specimen on the right could be difficult to separate from *C. lineopunctatus*. The spacing of the dots has widened, the dots are becoming dashes and in addition, the hairline markings on the shoulder are more widely spaced and much stronger.

Specimens from Limagens at 24-26mm illustrate a similar mixture of dots and dashes.



In most localities, *C. lineopunctatus* and *C. micropunctatus* would appear to live sympatrically. This makes identification of a number of recurring forms difficult. A selection from Elefantas illustrates the variety of shape and colour forms.



1. Elefantes 26mm GM

2. Elefantes 24mm

3. Elefantes (banded)

The above specimens have the dotted pattern of *C. micropunctatus* but could be interpreted as *C. lineopunctatus*..



The above specimens are from Elefantes. The centre specimen would be interpreted as *C. lineopunctatus*. The other two specimens above also could be interpreted as a form of *C. lineopunctatus*, unusually with thin lines on shoulder and wavy axial lines formed from the dashes and chevrons of the pattern.



The above specimens again from Elefantas have dots merging into lines which begin to show features more reminiscent of *C. lobitensis* or *C. chytreus*. The blue specimen with purple aperture was interpreted as *C. trovai* in the MNCN DNA records(MNCN KU 892088)

Rolán & Röckel 2000 refer to a population of orange patterned specimens similar to *C. micropunctatus*.



These specimens from Santa Maria illustrate the development not only of an orange form but also a banded pattern

DNA analysis

DNA sequences based on the COI gene are reported for two specimens



MNHN 31269 Equimina



MNCN KU892092 Lucira

Specimen KU 892092 has many of the typical features and is a good representative specimen.

Specimen MNHN 31269 has many differences from typical *C. micropunctatus*; blue ground colour, dashes not dots, purple aperture. It would be better interpreted as a specimen of *C. equiminaensis*.

