

Conus naranjus Trovão, 1975.



Holotype *C. naranjus*

Original description translated: A slightly pyriform shell in profile, orange coloured, with a uniform design formed by longitudinal lines that are darker than the base color. Sometimes the lines are interrupted giving rise to a series of small longitudinal traces, or even points, forming transverse bands; sometimes the lines are so interrupted that they almost have only small longitudinal features or even points. The last whorl of the shell, which is smooth, presents in the anterior part some oblique weakly marked striations.

Spire slightly raised, convex profile, well marked suture line, pattern of lines as an extension of the body pattern of the shell and with the same coloration.

Aperture: A very thin right lip, getting wider anteriorly. Interior white with an orange edge.

Periostracum: brown, fine, slightly transparent.

The animal, when observed alive, presents a pink coloration with a great number of black dots which, in some areas, form black spots.



Size of pictured specimens: 19,9 mm (probably a variety of *C. naranjus*), 20 mm (typical).

16. *Conus naranjus* Trovão, 1975 (Boletim d. Centro Port. d. Act. Subaquat. Dcc. 1975: 12-15).

Essential characteristics: Small, pyriform shell, light in weight. Sides of last whorl straight, near the shoulder strongly convex. Spire moderately elevated, spire sides concave, spire whorls convex superiorly. Surface smooth and glossy with some weak spiral cords near the base. Colour orange to dark brown with numerous very fine axial lines in orange or dark brown. Base violet brown. Inside white or violet toned.

Animal: Colour pinkish red with black dots. Periostracum : yellow and translucent.

Habitat: in calm waters under rocks buried in fine sand with shell residues at very low tide to 1 m depth. Generally they are found alone but three times groups between 9-18 specimens were found around *Holothuria* sp.

Locality: From Lobito Bay (loc. type) south to Lucira Bay. Rare. Sympatric with *C. bulbus*, *C. zebroides*, *C. obtusus*, *C. africanus* and *C. tabidus*.

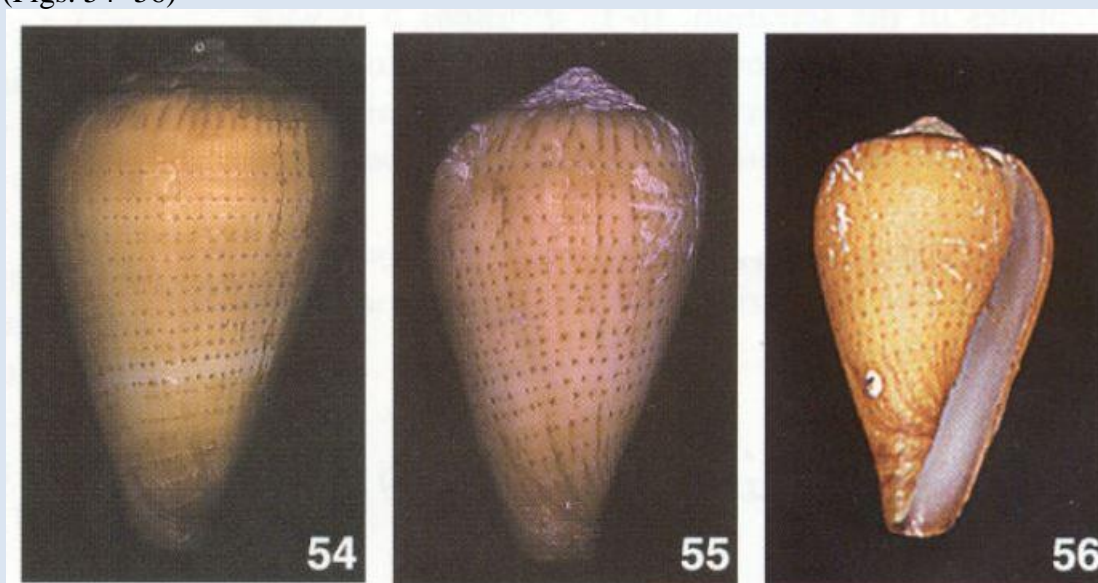
Similar species: *C. cepasi* is larger in size with a thicker shell and more spaced axial lines. *C. zebroides* with larger and heavier shell, distinct in colour and pattern.

Note: The text extends the original description to include dark brown shells. The left specimen has many features of *C. allaryi* in its pattern.

Rolán & Röckel, 2000

Conus naranjus Trovão, 1975

(Figs. 54- 56)



Figures 54-56. *C. naranjus*. 54-55: Santa Maria, 18.5 and 18.5 mm (SMNS); 56: Lucira, 15.3 mm (CER).

Conus naranjus Trovao, 1975. Boletim C.P.A.S., 4(2), 1975: 12, pl. 1 fig. 3, pi. 2 figs. 5; 8.

Type material: Holotype in CPAS (18.1 x 10.7 mm), depicted by TROVAO (1975, 1994).

Other material studied: Caota, Benguela; Baia Azul, Baia Binga; Santa Maria; Lucira;

Type locality: "Angola, 12° 40' E, 12° 22' S". The lines cross far off the coast; the first line corresponds with Limagens, north of Santa Maria. As this locality is close to the material referred to by us, we herewith designate it the type locality.

Shell description: Small, moderately light. Last whorl ovate to ventricosely conical, outline convex at adapical third, almost straight below. Left side concave near base. Aperture wider at base than near shoulder. Shoulder rounded. Spire of low to moderate height, outline concave to sigmoid. Teleoconch sutural ramps flat to convex, with fine spiral striae. Last whorl smooth and dull, with 6-10 spiral ribs at base.

Ground colour light orange or white. The holotype represents a form with dark orange, very fine to solid, somewhat wavy axial lines, sometimes leaving a few dotted spiral bands at centre. Another form consists of spiral rows of minute brown dots and brown axial lines at shoulder. Specimens from the Caota population may be almost brown with light axial streaks at centre. Aperture white or pale orange with a translucent collabral band.

Periostracum yellow, thin and translucent.

Shell morphometry:

L 18-23 mm

RD 0.62-0.69

RSH 0.11-0.15
PMD 0.68-0.76
RW 0.07-0.10 g/mm

Description of animal: Pinkish red with black dots (ROCKEL & FERNANDES, 1982b).

Radula sac with about 60 teeth. Tooth {Figs. 132-133} vermivorous with unusually large base, covered on external surface by dense tuber. Tooth small. PA smaller than half of DR. Ontogenetic changes are observed in adult specimens: Teeth in similarly sized specimens are immature or already mature. Serration S can be fine and bare of denticles {immature} or carrying up to 10 denticles as tubercles. It may have a short blade in adapical part, but not easily observable. In the latter aspect we disagree with TROVAO {1975b}.

Radula morphometry:
(n = 2)

D 0-10
ABS 30°-45°
LC/DR 68-80
DR/PA 2.1-2.4

Distribution: From Lucira to Santa Maria (Fig. 150). An isolated population occurs in Baia Caota, Benguela. *C. naranjus* lives sympatrically with *C. bulbus*, *C. neoguttatus*, *C. variegatus*, *C. zebroides*, *C. carnalis*, *C. chytreus*, *C. nobrei*, *C. musivus*, and *C. albuquerquei*.

Habitat: In calm waters under rocks buried in fine sand with shell residues at very low tide to 1 m depth. Generally they are found alone, occasionally in groups of 9-18 specimens around *Holoturia* sp. (ROCKEL & FERNANDES, 1982b)

Discussion: The holotype-form of *C. naranjus* resembles *C. cepasi* in colour-pattern. The shell of *C. naranjus* can be distinguished only by its lighter and smaller size (18-23 mm vs. 26-50 mm), its usually orange instead of white ground-colour and the existence of dotted spiral lines in some populations. *C. naranjus* and *C. cepasi* live sympatrically without intergradations. The radula, of shells of similar size, of *C. cepasi* and *C. naranjus* show differences: *C. naranjus* has barely or very small D in S, while *C. cepasi* has them evident. Also *C. naranjus* has LC/DR between 68-78, *C. cepasi* usually up to 82 (including all the material studied by Trovao, 1975).

Iconography of West African Conidae

The text follows the description of Rolán and Röckel, 2000. A broad interpretation of the description is followed in the illustrations.



A similar variety of colour forms is illustrated on the Cone Collector website from the Paul Kersten collection.



Few specimens are currently in circulation. However the Shell Encyclopedia illustrates some typical specimens. (www.conchology.be)



Lucira 21mm



Lucira 18mm

DNA analysis. There are no records in GenBank.

Page last updated 10 Oct 2019.