

C. xicoi Röckel, 1987



Holotype

Description:

Shell: Stout and small (average adult size: 22-32mm); shape conical; length: width ratio is 1.6— 1.7 Sides of last whorl convex posterior part but somewhat in- curved towards the base. Body whorl nearly smooth except for 7-9 raised spiral cords above base, usually being very distinct; surface of good gloss with numerous densely spaced wrinkled spiral threads crossed by numerous close set axial threads. Shoulder angled and flat to slightly concave at top. Spire moderate with straight to slightly convex sides. Teleoconch consists of 8 complete whorls what mostly will be concealed on account of erosion. Tops of whorls flat with numerous finest close--set narrow spiral grooves crossed by axial threads. First 4-5 post-nuclear whorls with 2 stronger spiral grooves, perceptible in juvenile specimens only. Background colour of body whorl whitish grey tinted with two broad spiral zones of blue only leaving a narrow spiral ground-colour band below midbody(width<1mm). Dark reddish brown pattern composed of axially arranged irregular blotches and flammules, broad zigzag lines as well as fine axial lines and dashes. Amount of pattern elements variable; appearance of shell may be dominated by its dark pattern elements largely overlaying background as well as by its light blue zones covered with a more or less reduced pattern. Shoulder and spire whitish blue with dark reddish brown axial streaks and blotches that may fuse together spirally to some extent. Inside margin of outer lip light and followed by a broader dark brown zone, colour changing to light violet deeper within; narrow light spiral bands below shoulder and middle are very distinct. Periostracum yellowish, relatively thick, and only partially translucent, with slightly tufted spiral lines.

Animal: Colour cream pinkish; border of mantle dark pinkish covered with dark dots; siphon and proboscis blackish. Number of radular teeth varies from 48 to 52, length of teeth is about 0.56 mm; serration comprises 22 to 27 denticles and length ratio of shell: tooth ranges between 44: 1 and 56: 1 (based upon 3 specimens examined measuring 31.3 x 19.5 mm, 25.3 x 16.3 mm, 17.8 x 10.4mm).

Habitat: *C. xicoi* occurs intertidally from very low water down to the surge zone. It lives in rock crevices or sometimes between rocks, partly buried in sand.

Range: Known from Santiago Beach (30 km north of Luanda) up to the mouth of the Dande river, Angola.

Type locality: Santiago Beach (30 km north of Luanda), Angola.

Type material: Holotype (25.5 x 14.7 mm) in Senckenberg-Museum Frankfurt.

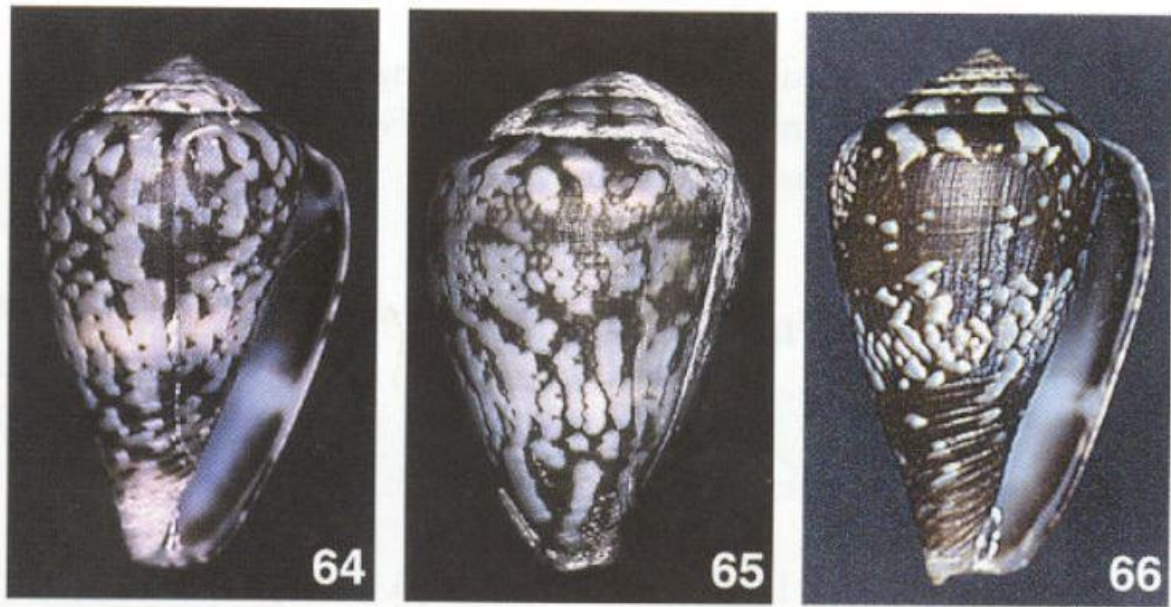
Etymology: Named in honour of Francisco (<<Xico>>) Fernandes from Luanda, who has been the first to collect specimens of the new species.

Discussion: All endemic *Conus* species from southern Angola (e.g. *Conus bulbus* Reeve, *C. variegatus* Kiener, *C. africanus* Kiener and numerous related species) differ from *C. xicoi* by their rounded shoulder which is convex at top. In colour pattern *C. xicoi* rather resembles *C. aemulus* Reeve. But the latter differs by its larger average adult size (< 50 mm), by its more slender shape (length: width ratio about 1.85), and by the presence of dotted or dashed spiral lines in its body pattern. Similar looking species from the Cape Verde Islands, in particular *Conus cuneolus* Reeve and *Conus lugubris* Reeve, differ by having 2-3 distinct spiral grooves on top of whorls.

Rolán & Röckel, 2000

Conus xicoi Röckel, 1987

(Figs. 62-66)



Paratypes

Conus hieroglyphicus "Duclos" (printer's error for hieroglyphus) in Kiener, 1845. Coq. Vivant., 2: pl. 73 fig. 1a.

Conus "lugubris" Röckel & Fernandes, 1982 non Reeve. La Conchiglia, 14(156-157): 5.

Conus xicoi Röckel, 1987. Publ. Ocas. Soc. Port. Malac., 9: 45, pl. 1 A, B, C, D, pl. 2 A, C.

Conus xicoi Röckel, 1988. Club Conchylia, 20: pl 2, fig.

Type material: Holotype in SMF, depicted by RÖCKEL (1987) (25.5 x 14.7 mm);

Other material studied: Santiago Bay {SMNS}; Praia Santiago, N. Luanda;

Type locality: Praia Santiago (30 km north of Luanda), Angola.

Shell description: Small to moderately small, moderately solid, Last whorl broadly and ventricosely conical; outline convex at adapical third, straight or slightly concave below. Aperture moderate, wider at base than near shoulder. Shoulder angulate and smooth. Spire of

low to moderate height with straight, sometimes slightly convex outline. Teleoconch sutural ramps flat with numerous striae, crossed by axial threads. First 4- 5 post-nuclear whorls with 2 stronger spiral grooves, perceptible in juvenile specimens only.

Surface smooth and slightly glossy with about 10 narrow spiral grooves at base. Periostracum yellowish, thick and only partially translucent, with slightly tufted spiral lines.

Ground colour bluish white with two small lighter spiral bands at centre and shoulder. Dark brown reticular pattern leaving spiral rows of bluish-white axial streaks as well as fine irregular zigzag-lines and flammules. Occasionally specimens may be completely brown with scattered light spiral bands at centre and shoulder. Aperture dark brown with a light margin; deeper inside light violet

Shell morphometry:

L 22-32 mm

RD 0.70-0.81

RSH 0.10 -0.18

PMD 0.76-0.84

RW 0.10-0.16 g/mm

Description of animal: Colour cream pinkish, mantle border dark pinkish and covered with dark dots. Siphon and proboscis blackish colour. (ROCKEL & FERNANDES, 1982b).

Radula: In radula sac 50-56 teeth. Tooth (Fig. 136) of vermivorous type, middle sized. F covers 72% of PA. ABS smaller than usual. D in S are small and in two rows in the middle.

Radula morphometry:

(n = 4)

D 13-27

ABS 20-30°

LC/DR 44-56

DR/PA 1.9-2.1

Egg capsules: White, almost rectangular, with short base (Figs. 117-118). Escape window wide and translucent. One prominence at each side of posterior surface.

Distribution: From Santiago Beach (30 km north of Luanda) up to the mouth of the Dande river, Angola. Juveniles were collected in Luanda.

Habitat: Intertidal from very low water down to the surge zone, in rock crevices or between rocks, partly buried in sand.

Discussion: The dark brown form of *Conus xicoi* was depicted by KIENER (1845, pl. 73 fig. la) as "*Conus hieroglyphicus* Duclos", a printer's error for *Conus hieroglyphus* Duclos, which is a Caribbean species. This misidentification by Kiener cannot be used for that taxon (ICZN, Article 49). Later, *C. xicoi* was misidentified by RÖCKEL & FERNANDES {1982b) as *C. lugubris* Reeve, a species from Cape Verde Islands. *C. xicoi* is easily distinguished from other endemic Angolan cones by its angulated instead of rounded shoulder; *C. aemulus* -

living sympatrically -has certain similarities, but is larger (L up to 58 mm), narrower in shape (0.70-0.81 vs. 0.63-0.73), and has a more dull surface. Dotted or dashed spiral lines, usually present in the *C. aemulus* pattern, are lacking in *C. xicoi*, as well as the spiral grooves on first teleoconch sutural ramps.

Iconography of West African Conidae

This illustrates a good selection of specimens of *C. xicoi*



Separating specimens from juvenile *C. aemulus* is a challenge and can rely on the presence of an angulated shoulder. Specimens with a raised spire can also be found



Specimens from the Medvedev collection illustrate the wide profile





Paratype Rolán collection USC

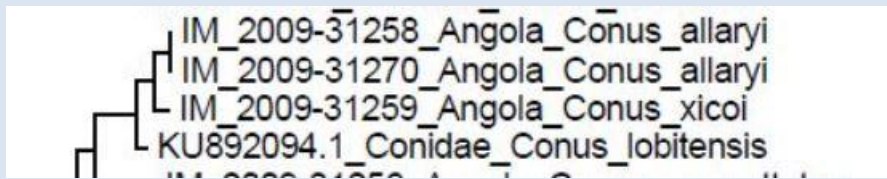
DNA Analysis

There is one specimen reported in GenBank based on the COI gene.



MNHN31259 Cacuo

This specimen seems to be a specimen representative of *C. xicoi*; however, its position in the tree is interesting.



One would perhaps expect the two species from Luanda to be closely related ie *xicoi* and *aemulus*. However *C. xicoi* seems genetically similar to *C. allaryi* from Santo Antonio in Benguela, despite their geographical separation. It would be sensible to recheck the identity of these *C. allaryi* specimens given that a known locality for *C. xicoi* is the northerly locality of Santo Antonio do Zaire now called Soyo.

Page last updated 10 Dec 2019.