

Revision of
Strombus (Canarium) mutabilis ochroglottis ABBOTT
(Gastropoda: Strombidae).

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With 4 figures.

In his monograph on the Strombidae of the Indo-Pacific, ABBOTT (1960: 72-75) has given an excellent outline of the *Strombus (Canarium) mutabilis*-complex. He recognized two living subspecies: *S. m. mutabilis* SWAINSON, 1821, from the entire tropical Indo-Pacific, exclusive of Hawaii, the Line Islands, Marquesas and Easter Island, and a new subspecies *S. m. ochroglottis* ABBOTT, 1960, from Mauritius. A single record of *ochroglottis* from the Red Sea was considered as a probable erroneous locality (ABBOTT 1960: 75).

Recently we could study authentic material of *ochroglottis* from Mauritius and the Red Sea. Hence it became evident that *ochroglottis* is a sympatric relative of *Strombus mutabilis*, and morphological more related to *Strombus (Canarium) wilsoni* ABBOTT, 1967, than to *S. mutabilis*.

A revision of *Strombus (Canarium) mutabilis ochroglottis* ABBOTT is therefore given in this paper.

The studied material is preserved in the following collections: TAU = Tel Aviv University, Department of Zoology; ZMA = Zoological Museum Amsterdam, Department of Molluscs.

***Strombus (Canarium) ochroglottis* ABBOTT, 1960.**

- 1960 *Strombus mutabilis ochroglottis* ABBOTT, Indo-Pacific Moll., 1 (7): 74 (Mauritius).
1967 *Strombus (Canarium) mutabilis ochroglottis*, — WAGNER & ABBOTT, VAN NOSTRAND's Standard Cat. Shells, (2): 38 (Mauritius).
1970 *Strombus (Canarium) mutabilis ochroglottis*, — MIENIS, Corr. Blad nederl. malac. Ver., 138: 1530 (Mauritius and the Gulf of Eilat).

Description¹⁾: Adult shell 16-36 mm. in length, solid, axially nodulated, faint spiral threads near the aperture, varicoloured, elongate-quadrate in shape, and with a striate columella. Whorls 7, nuclear whorls 3, which are glossy, smooth, translucent white and rounded. First postnuclear whorl with incised spirallines, which become obsolete in the last whorl. By the second postnuclear

¹⁾ In the description we follow the style used in Indo-Pacific Mollusca.

whorl a strong, rounded cord appears just below the suture, but which is absent on the last half of the body whorl. Spire with numerous swollen, whitish, former axial varices. Last whorl with 4-6, sometimes very heavy, nodules at the shoulder, which are often immediately located behind the swollen varix of the outer lip. Penultimate whorl with 6-12 nodules. Base of the shell with about 9-16, small, spiral threads. Columella white, smooth at the centre and bounded above by 6-8 and below by 6 minute, sometimes bifurcated, white teeth. Inside of the body whorl chrome-yellow, and bearing 30-35; fine, raised, white to chrome-yellow spiral lirae. Stromboid notch well-developed. Colour of the outer shell variable: maculated or banded with either brown, orange or pink.

Measurements: Measurements of the type material from Mauritius were given by ABBOTT (1960: 75). The 5 specimens from Eilat, Red Sea, which we could study had the following measurements in mm.:

length	length mouthopening	width	number of whorls
29.2	19.2	15.9	7
23.5	17.4	12.9	7
23.4	16.4	12.2	7
22.8	15.4	14.1	7
20.9	18.4	14.7	7

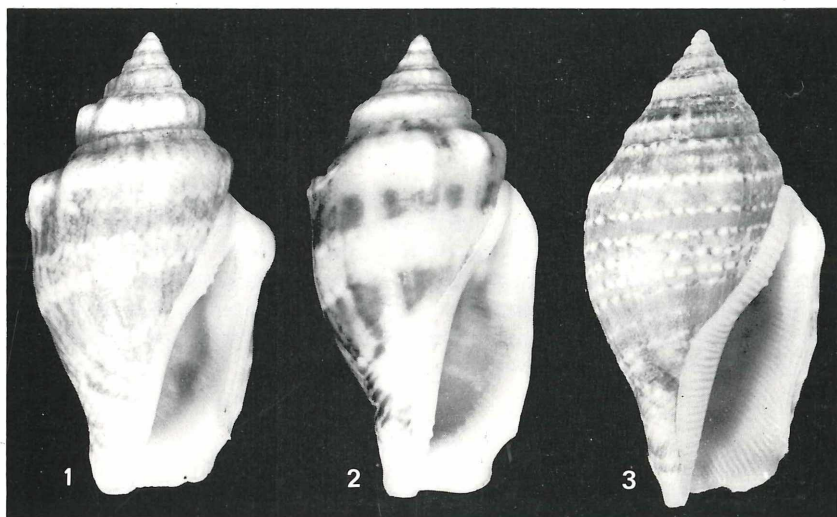
Although the ratio length-width is quite variable, the specimens from Eilat seem to be wider than those from Mauritius. Elongate and more quadrate specimens are found however together in one population.

Distinction from related species.

Strombus ochroglottis is morphological intermediate between *mutabilis* and *wilsoni*. The three species can be recognized on the following characters of the shell:

	<i>ochroglottis</i> figs. 1-2	<i>mutabilis</i> fig. 3	<i>wilsoni</i> ABBOTT 1967: 455 figs. 1-3
length	16-36 mm.	16-40 mm.	18-28 mm.
colour of columella	white	pinkish-brown to mauve-brown	white to tan
colour of inside outer lip	chrome-yellow	pink, sometimes white or mottled with brown	tan, brown or purple
teeth on columella	white, absent at the centre	white, along the whole columella	tan to purple, absent at the centre
nodules on body whorl	4-6, which vary in size	3-4, which are very weak	5-7, which are of equal size
nodules on penultimate whorl	6-12	absent, or some very weak ones	15-22, elongate riblets

Especially the nodules on the body- and penultimate whorl and the absence of teeth at the entre of the columella are characteristic for *ochroglottis* and *wilsoni*. The shells of these two species are also more shouldered than those of *mutabilis*.



Figs. 1-2. *Strombus (Canarium) ochroglottis* ABBOTT. — 1) Eilat (coll. ZMA), Length 29.2 mm. — 2) Mauritius (coll. ZMA), Length 22.8 mm.
 Fig. 3. *Strombus (Canarium) mutabilis* SWAINSON. Jeddah (coll. ZMA), Length 32.7 mm.

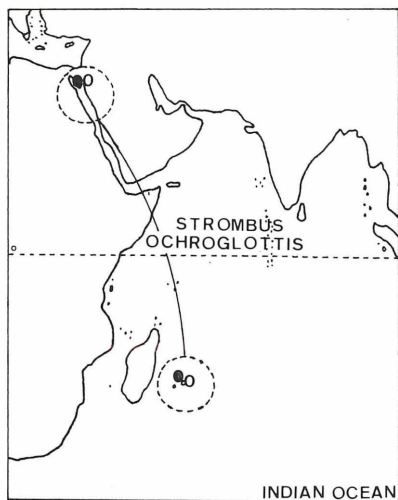


Fig. 4. Distribution of *Strombus (Canarium) ochroglottis* ABBOTT (• = records of studied material, o = literature records).

Distribution.

The following tentative picture of the distribution of *Strombus (Canarium) ochroglottis* ABBOTT may be drawn up from literature records and labels of studied specimens.

Red Sea Jordan, Aqaba (ABBOTT 1960: 72); Israel, Eilat, leg. J. DAFNI, 1967 (TAU - 4 spec. and ZMA 1 spec., fig. 1).

Mauritius: Mauritius (ABBOTT 1960: 75, WAGNER & ABBOTT 1967: 38); Mauritius, Great Black River Bay, dredged, leg. W. H. HARMON, July, 1968 (ZMA - 2 spec.); ibidem, dredged in water from 6-15 feet depth, leg. W. H. HARMON, 23 June, 1968 (ZMA - 2 spec., fig. 2).

In fig. 4 the distribution of *Strombus ochroglottis* in the Indian Ocean is given. The discontinuous range is striking. Additional records from the intermediate area can be expected. Carefully examination of specimens from the *mutabilis-wilsoni-ochroglottis*-complex from that area is necessary.

The range of *Strombus ochroglottis* is however situated in that of *S. mutabilis*. In Eilat both species were collected together. We consider therefore *Strombus ochroglottis* as a sympatric relative of *S. mutabilis*.

Habitat.

Hardly anything is known about the habitat of *Strombus ochroglottis*. In Mauritius specimens were dredged in water from 6-15 feet depth. In Eilat specimens were collected dead together with *Strombus mutabilis* and *S. erythrinus*.

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