Memoirs of the National Museum of Victoria 18 December 1959
https://doi.org/10.24199/j.mmv.1959.24.09

A NEW SPECIES OF THE *CYPRAEA* SUBGENUS *NOTOCYPRAEA*.

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Specimens of *Cypraeidae* collected in the area of Western Port Bay, Victoria, Australia, differ from specimens of the known species of the family. The differences are so considerable and consistent that it is clear that the new specimens belong to a hitherto undescribed species.

Family CPYRAEIDAE.

Cypraea (*Notocypraea*) *wilkinsi* sp. n.

Holotype. Shell ovate, with a broad anterior end, labial side callous, shell otherwise thin, and light in weight; spire protruding slightly above the top of its pit. Dorsum bright flesh in colour, sides and ends paler, base tending to be white, especially on the columellar side; no dorsal bands. On the labial callus there are about forty very small pale brown spots, with ten or so more or less in a line on the opposite side of the shell. Aperture fairly wide throughout, constricted towards the front on the labial side. Basal teeth small, on the columellar side not extending onto the base. Fossula shallow, crossed by extensions of the teeth; its lower edge projects only slightly into the aperture; the shallow columellar sulcus merges with the fossula. Interior of the shell pale flesh in colour.

Animal. Tentacles pale orange, darker at ends; tapering in shape, with rounded tips. Siphon pale cream, almost translucent, with no papillae at the edge. Mantle translucent, colourless or very pale orange, almost invisible when extended over the shell; marked on the left with about twenty patches composed of dark dots; mantle papillae unbranched, mamilliform, with tips rounded; about twenty such papillae on each side. Foot very pale cream, also almost translucent, with some raised tubercles on the sides; it extends behind and on both sides of the shell when the animal crawls.

Radula. The radula is sketched in Figure 1.

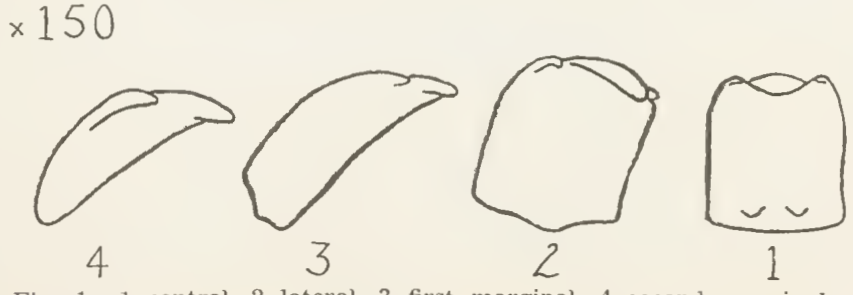

Fig. 1.—1 central, 2 lateral, 3 first marginal, 4 second marginal.

The radula, which is 8 mm. long and 0·4 mm. wide, has 70 rows of teeth.

Juvenile shell. A single dead specimen of a juvenile (oliviform) shell was found under the same stone as the holotype. It is almost cylindrical in plan view, and pale flesh in colour. There is no trace of dorsal bands.

Variation. The shell characters of the paratypes show considerable variation, particularly in lateral spotting (absent in some shells), in the extent of the protrusion of the lower edge of the fossula into the aperture, in weight, in aperture width, and in the constriction of the anterior labial side of the aperture.

The type locality of the species is Victoria, Australia—Flinders south beach through Western Port Bay to San Remo.

MEASUREMENTS.

TABLE 1.

	Holo-type	Paratypes No.						Mean	Para-type No. 1
		2	3	4	5	6	7		
Length (mm.)	24·3	18·9	28·7	21·9	19·7	30·1	25·5	24·2	12½
Width (percentage length) ..	54	59	56	54	56	53	58	56	52
Height (percentage length) ..	44	47	46	43	46	43	47	45	40
Number of labial teeth (*A*) ..	27	26	28	29	26	30	27	28	..
Number of columellar teeth (*A*)	24	23	26	23	23	24	26	24	..
Protrusion of lower edge of fossula (percentage length) ..	2½	3¼	4½	4½	4	4	3¼	3·7	..
Weight ($\times 10^4$, L^3) (*B*) ..	1	1·3	0·7	0·8	0·8	0·6	0·7	0·8	..
Angle of aperture (*C*) (degrees)	34	45	48	44	42	57	47	45	..
Width across aperture (*D*) (percentage length)	9	8½	10	9½	10½	11	9¾	9·7	..

NOTES.—A. Corrected to a shell-length of 25 mm. See Schilder and Schilder (1938). All teeth and ridges except the anterior columellar ridge were counted.

B. The factor of 10^4 is introduced to facilitate handling of the results.

C. This is the angle between the tangents to the front and rear of the aperture.

D. Measured from the tip of the front columellar tooth to the line joining the tips of the two nearest teeth to the labial side.

Specimens examined. A holotype and seven paratypes are nominated. Some worn beach shells were also examined, but their condition was not good enough to warrant their being declared type material. Details of the type specimens are as follows:

TABLE 2.

Specimen	Where situated	Where collected
Holotype	Shell and radula in the National Museum, Melbourne; ref. F19903	Flinders south beach. Found by the author under a stone at low tide, 2nd March, 1958
Paratype No. 1 (oliviform)	Author's collection; ref. No. C.2	Under the same stone at the same time as the holotype
Paratype No. 2 ..	Author's collection; ref. No. C.3	Dead on Flinders south beach, February or March, 1958
Paratype No. 3 ..	Author's collection; ref. No. C.7. Formerly in the Gatliff Collection in the National Museum; ref. F19979	San Remo
Paratypes Nos. 4–5 ..	National Museum, Gatliff Collection; ref. F19979	San Remo
Paratypes Nos. 6–7 ..	Collection of Mr. C. J. Gabriel.	Dredged alive in Western Port Bay; on bryozoa.

Photographs of the holotype and of some of the paratypes are given in Plate I.

Apart from the type specimens, other shells examined were three dead shells from Flinders south beach and one dead shell from Ulverstone, Tasmania; all are in the author's collection. Two of the Flinders shells (ref. C.4) are undoubtedly members of the new species. The other two shells (ref. C.5 and C.6 respectively) are probably but not certainly referable to it.

REMARKS.

Although *C.wilkinsi* is clearly distinct from all other species of *Cypraea,* two " varieties " described by Beddome superficially resemble it. Reference to Beddome's papers (1896, 1898), however shows marked differences. *C.albata* Beddome 1898 (length 25 mm., width 72 per cent. of length, height 60 per cent., 24 labial teeth) is described as snow white, with a heavy labial callus; it is proportionately much wider and taller than *C.wilkinsi. C.subcarnea* Beddome 1896 (length 24 mm., width 67 per cent., height 50 per cent., 21 labial teeth, 20 columellar teeth) is also wider and taller, with sides and ends more callous, and with fewer teeth; it has larger and more distinct labial spots, and the general shape of the shell is more ovate.

The retention of the generic name *Cypraea* L.1758 and the use of the name *Notocypraea* Schilder 1927 only as a subgenus is based on the reasons given by Kay (1957); it can also be justified on conchological grounds.

The new species is named in memory of the late Mr. G. L. Wilkins, who formerly worked in the Mollusca Department of the British Museum (Natural History). I am glad to have this opportunity to acknowledge, on behalf of all those he helped, the generous and unstinted assistance and encouragement he gave to so many people.

REFERENCES.

Beddome, C. E. (1896).—Note on *C.angustata* var. *subcarnae*. *Proc. Linn. Soc., N.S.W.*, XXI., p. 467.

———— (1898).—Notes on Species of *Cypraea* inhabitating the shores of Tasmania. *Proc. Linn. Soc., N.S.W.*, XXII., p. 564.

Kay, A. (1957).—The Genus *Cypraea*. *Nature*, 180, p. 1436.

Schilder, F. A. and M. (1938).—Prodrome of a Monograph on living *Cypraeidae*. *Proc. Malac. Soc., Lond.*, 23, p. 119.

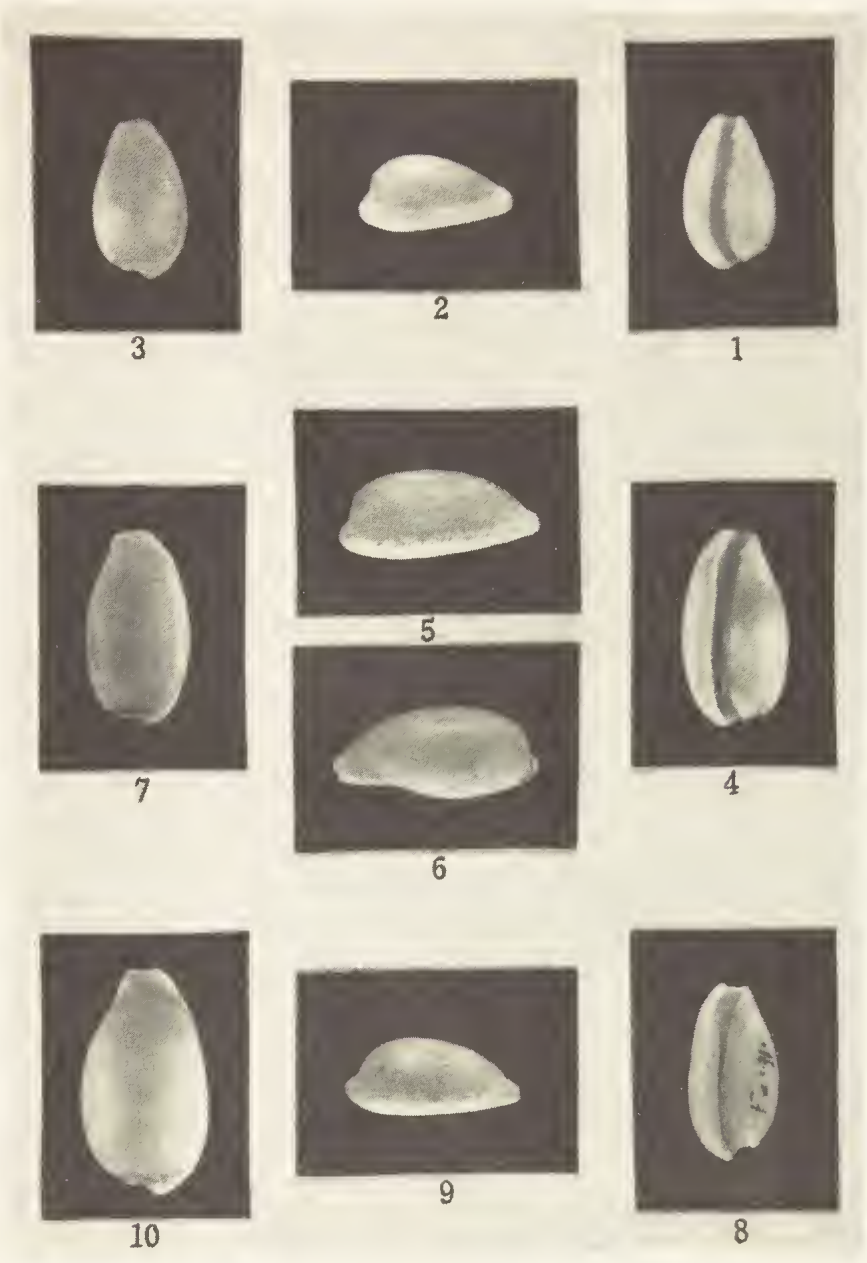

PLATE.

Cypraea (*Notocyprae*) *wilkinsi*.

(approximately natural size.)

1–3.—Paratype No. 2.

4–7.—Holotype.

8–9.—Paratype No. 4.

10.—Paratype No. 3.