

## TROCHUS OBTUSA CONFUSION.

By J. Hope Macpherson, M.Sc. Curator of Molluscs National Museum of Victoria.

The present author in 1958 received a series of *Chrysostoma* from the W. Australian Museum for identification. The specimens had been collected by B. R. Wilson and G. Kendrick on the South Jervois Groin, Naval Base, Cockburn Sound, West Australia. The checking with *Chrysostoma* specimens already in the National Museum collection revealed that some purchased from Hugh Cuming in 1868 were labelled *Chrystostoma obtusum* Chemnitz, Swan River. These shells were certainly conspecific with the present Cockburn Sound specimens and seemed to correspond very well with the Chemnitz description and figure of *Trochus obtusus* (Conch. Cab. XI. 1795, p. 167, pl. 196. figures 1894-5). (Chemnitz being non-binomial the species is attributed to Dillwyn, 1817).

However, Hedley had decided, 1917, (Pro. Linn. Soc. N.S.W. 1916, p. 700) that this name should be used for the shell previously known as *Monodonta constricta* Lamarck (South-eastern Australia). He stated that "guided by a suggestion in Pilsbry's Monograph" he sent specimens to Lynge at the Copenhagen Zoological Museum where the Chemnitz type is situated. Lynge compared them with the type and said that Hedley's shells were identical.

Pilsbry's reference to Chemnitz in the Monograph, is through a figure by Philippi. This is certainly of the Chemnitz shell but the delineation is such that it could be mistaken for the *Monodonta*. It seemed, after due consideration, that both Hedley and his advisor, Lynge, could have been misled. In order to confirm or discount this, specimens both of the south-eastern shells known as *Austrocochlea obtusa* and the West Australian *Chrysostoma* were sent from this museum to Dr. H. Lemche at the Zoological Museum, Copenhagen, for critical comparison with the Chemnitz type.

The following is an extract of Dr. Lemche's reply:—

"In reply to your inquiry of April 1st concerning *Trochus obtusus* Chemnitz I am to inform you that comparison of your specimens to the type of the said species clearly shows the two larger specimens of yours\* to be out of question as conspecific to the type.

\* The south-eastern *Monodonta*.

The smallest specimen,\*\* in its general habitus, is similar to that of the type, although your specimen is somewhat smaller and the spire less elevate. The upper zone of the last whorl in your specimen carries less coloured striae than the flat and more outwards directed second zone which, again, has the same number of coloured striae as the remaining parts of the surface. In the type, all of the coloured striae are almost as broad as those of the upper zone in your specimen, and they are continuous over all three areas. In the lower one, the striae continue obliquely downwards and toward the aperture in exactly the same manner as in your specimen—with the exception of the last fourth of the last whorl where there is a sudden break in the colouration as a consequence of a very pronounced growth-stop. Outside the break, the striae run parallel to the border of the aperture in the upper half of the zone, to bend round once more on the lower half of this zone—as indicated also on the figure 1895 given by Chemnitz.

The size of your specimen corresponds exactly to the regularly coloured part of the type, i.e. your specimen lacks the final, irregularly coloured part shown by the type.

Your specimen has a distinct, shallow groove separating the upper and the second zones. In the type, the groove is represented by a more pronounced concavity in this place.

The surroundings of the umbilicus differ, the type showing a distinct although narrow umbilicus not covered by the umbilical callus; also, the slight tooth-like protrusion at the base of the aperture differs slightly in shape. The difference, however, is hardly such as to be of systematic significance.

The type is labelled "East Indies." Probably, your specimen represents the same species—but it might be that it belongs to a different geographical subspecies."

From the foregoing it appears to be obvious that the south-eastern *Monodonta* was confused by Hedley with the Chemnitz *Trochus obtusus* and must now revert to

#### AUSTROCOCHLEA CONSTRICTA (Lamarck, 1822).

*Trochus obtusus* of authors (non Dillwyn).

*Monodonta constricta* Lamarck, 1822; (White Form) Anim. s. vert. 7, p. 36.

*Monodonta zebra* Menke, 1829; (striped form) Verg. Malak. Conch. Samml., p. 17.

*Trochus taeniatus* Quoy & Gaimard, 1834 (striped form) Voy. Astrolabe III p. 249, pl. 63, f. 15-17.

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\*\* Western *Chrysostoma*.

*Trochus constrictus* Quoy & Gaimard, 1834, (unicoloured and striped) p. 251, pl. 63, f. 26-27.

*Labio porcatus* A. Adams, 1851 (small striped form) Proc. Zool. Soc. Lond., p. 179.

*Trochocochlea multicarinata* Chenu, 1859 (striped form) Man. de Conch. I, p. 360, fig. 2676.

*Trochocochlea extenuatus* Fischer, 1876 (new name for *porcatus*) Icon. Coq. Viv. p. 178, pl. 59, f. 2 and pl. 60, f. 4.

*Austrocochlea torri* Cotton & Godfrey, 1934 (white form) S. Austr. Nat. 16, page 1.

*Austrocochlea constricta* shows considerable variation in colour pattern according to geographical distribution and habitat. Some authors consider the unicoloured and striped form to be different species, but Mrs. Jean Carter (personal communication) who is in process of making a revision of the genus has been unable to find any anatomical differences between animals with shells of various colour patterns.

Hedley's suggestion that Lamarck had the unicoloured form is confirmed by Dr. E. Binder of the Museum d'histoire naturelle, Geneva, who writes: "It is difficult to be sure about the stripes on Lamarck's specimens of *Monodonta constricta* because they are discoloured, rather worn, and covered with a white crust. The best seems to be an uneven grey, but I can distinguish no stripes resembling those pictured by Quoy & Gaimard on *Troque multicarene*. I should consider these specimens (they are three) to be the unstriped form."

Therefore should it be necessary to distinguish between the unicoloured and striped forms the latter will revert to *zebra* Menke. The stunted salt-marsh form of this being known as *porcatus* A. Adams.

The West Australian specimens sent to Dr. Lemche were compared with the remainder of the Western Australian Museum series and the latter varied in two particulars. Most specimens in the series were smaller, and elevation of the spire was higher in some specimens.

I agree with Dr. Lemche that they are conspecific with the Chemnitz shell but I am not prepared to follow his suggestion that they be subspecifically separated on geographic grounds until a series of specimens from the type locality is available to illustrate variation.

I therefore propose to call the Western Australian shell  
*Chrysostoma obtusa* (Dillwyn, 1817).

*Trochus obtusus* Dillwyn, 1817, Descriptive Cat., II, 1817, p. 809 (not of authors).

*Trochus obtusus* Chemnitz, 1795, (non-binomial) Conch. Cab. XI, p. 167, tab. 196 of 1884-5.

*Trochus obtusus* Philippi, 1846. Syst. Conch. Cab. (Martini & Chemnitz), Bd. II, Abth. 3, p. 19, Taf. 4, fig. 3, 4.

The collectors give the following information on habitat  
“Living on and around a small stone in six feet of water,  
surrounded by *Posidonia*. Twenty-five yards south Jervois  
Groin, Naval Base, Cockburn Sound, W. Australia.”

#### NEW NAME FOR *MUREX ESPINOSUS* MACP.

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*Murex espinosus* Macp. was described in Memoirs, National  
Museum, Melbourne No. 24, December, 1959, p. 55 but the name  
is preoccupied by Hutton, 1886 (Trans. N. Zeal. Instit., vol. 18,  
p. 333) who used it for a Pleistocene fossil. Therefore I propose  
to replace it by *Murex tweediana*.