ON TENISON-WOODS TYPES IN THE TASMANIAN MUSEUM, HOBART,

By W. L. May.

Read October, 1902.

It is known to all workers in Australian Conchological Science that the late J. E. Tenison-Woods, during the years 1875 to 78, described a large number of Tasmanian Marine Shells in the proceedings of this Society.

His species are usually fairly well described, but he published no figures, and with a few exceptions the specimens he used were not marked as types.

Owing to many of these species also occurring on the coasts of Southern Australia, and which have since been discovered and worked up by scientists there, they have taken an important place in their investigations, but owing to the want of figures, and particularly types to authoritatively settle uncertainties and differences of opinion, some confusion and considerable irritation have been caused. The Tasmanian workers could not definitely assert that any species referred to them was certainly Woods' species without the type, and could only assume that it was so because it agreed with specimens so named in the Museum, or through tradition handed down by W. Legrand, C. E. Beddome, and others, and they were in consequence sometimes taunted with not knowing their own shells.

In this way some errors crept in amongst lists and collections, and Australian workers made frequent mistakes, for which on the whole they had considerable excuse.

So lately as during the preparation of the Revised Census of Tasmanian Marine Shells, *Tate and May*; the authors were still troubled by this want of definite types, and did not venture to quote the Museum specimens as such, unless so marked, which made the work less complete and authoritative than it otherwise would have been, and also led to several errors. But a better day has dawned, and it is the object of this paper to make public the steps lately taken to place this vexed subject on a satisfactory basis.

During the sittings of the last Congress of the A.A.A.S. at Hobart in January, 1902, several leading conchologists were present from various Australian States, and after some preliminary conversation on the subject, they formed a committee to investigate, and if possible settle, the question as to whether Tenison-Woods's species so named were the types, and, if so, definitely mark them as such. The names of those comprising the committee should be a sufficient guarantee of careful and thorough work, and it is not probable that their

decisions will ever be seriously questioned. They are as follows:—Charles Hedley, conchologist, Australian Museum, Sydney; G. B. Pritchard, Melbourne; Miss M. Lodder, Tasmania; W. L. May, Tasmania. With the cordial consent of the Curator, Mr. Alexander Morton, the work was taken in hand. As a preliminary, I was able to state that to my personal knowledge the collection, so far as Woods's species were concerned, had remained practically unaltered since his time.

All his species described before the publication of his census are labelled with slips cut from that work, or in his handwriting. Those described since are in his handwriting. It therefore seemed to us all that it was sufficient evidence that we were dealing with his type specimens if they were labelled as described, particularly as the shells always agreed with his description, and sometimes had some peculiarity which further identified them. In some cases the author's handwriting was on the card in addition to the printed label, and there are some instances in which they are marked as "type." An additional point in evidence was that Woods described some half dozen exotic species received from Ronald Gunn with the mistaken identification of their being Tasmanian. There is but one specimen of each in the Museum, and there is no doubt that they are the type, but they were not so indicated with the other species, and labelled with slips from the census. See also Woods's note at the end of his paper "On some Tasmanian trochidæ." P.R.S., Tasmania, 1879, where he makes certain corrections of some names contained in his census. He says, "I have to thank Mr. W. F. Petterd and Mr. W. Legrand for having carefully gone over the *whole of the type specimens* for me to ascertain the above corrections. The italics are mine. None of the species referred to in this note were marked as type. We therefore unanimously agreed to take the above indications as a guide, and were able to definitely decide as to over 150 species, which are now marked as *type*.

The following is a full list of these types, with a few remarks where necessary as to the condition of the specimen, etc., or where some fresh facts have been ascertained which it seemed well to place on record. I have thought best to keep entirely to Woods's names as they were described. The corrections of both generic and specific names will be found in Tate and May's Census. I have also taken the opportunity to correct some errors in that work particularly affecting these species, but where I consider they have correctly treated the synonomy, and properly identified the species, I shall not again refer to them. I have also prepared drawings from the types of such species as have not yet been figured, or but inaccurately or wrongly so, and they will appear as

figures in the text of this paper, which I hope will be of distinct service to workers in Australasian Conchology.

It seemed as well to add for general information that the whole of the types of Tate and May's species (with the exception of Cantharus kingicola now in possession of Dr. Vercoe, of Adelaide, S.A.), amounting to 30 species, are also in the Tasmanian Museum, as well as a considerable number of W. F. Petterd's types, and one of C. E. Beddome's, viz., *Leda lefroyi*.

LIST OF TYPE SPECIMENS.

Murex zonatus.
Trophon assisi.
Trophon australis.
Trophon brazieri.
Trophon clathratus.
Trophon goldsteini.
Trophon squammosissima.
Trophon umbilicatus.
Purpura albolirata.
Purpura littorinoides.
Purpura popinqua.
Pisania tasmanica.
Ranella epitrema.
Fusus legrandi.
Fusus spiceri.
Siphonalia clarkei.
Siphonalia castanea.
Siphonalia turrita.
Siphonalia pulchra.
Cominella tasmanica.
Cominella tennicostata.

Josepha tasmanica. This type was, but is no longer, in the collection. The late C. E. Beddome told me that he had the loan of this, and several other types, which he sent to Tryon, to assist him with his Manual. They were returned to him and handed to the late Curator, but have never been replaced in the collection, and cannot now be found.

Nassa tasmanica.

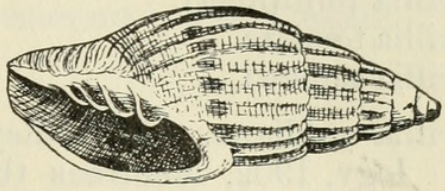
Mitra franciscana.

Mitra granatina. The same remarks apply to this as to *Josepha*. From my recollection of the shell I should certainly consider it to have been an exotic species.

Mitra legrandi. There are three small and probably original specimens on the card, and one larger and perhaps later addition. The former, which we regard as typical, are young shells, and are the variety *Schomburgki* angas.

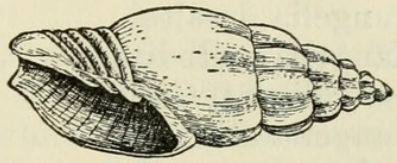
I agree with Pritchard and Gatliff, P.R.S., Victoria, p. 189, 1899, in uniting these species together with *Scalariformis*. The large specimen mentioned seems to be a form of *vincta*.

Mitra scaliformis.
Mitra tasmanica. (Fig. 1.)



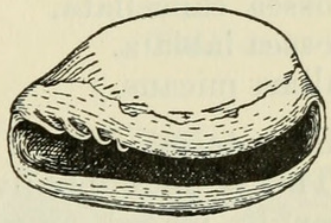
(Fig. 1.)

On the card are 4 specimens, amongst which it is easy to identify the type and vars. A and B. I consider this to be a very distinct species, not to be confounded with any one of our ribbed mitras: its peculiar form and distinct spiral liræ are very constant. Woods gives no habitat, but the few speimens I have received are from the Derwent Estuary. Var. A. This is *M. tatei* angas, and in no sense a var. of this species. Var. B is very distinct, and whilst I do not consider it to be a variety of this, it has some resemblance in form. It almost merits a specific name; but these shells are so variable and so overloaded with synonomy already, that, without a large series of specimens, it would be unsafe to separate it as a new species. It may be an extreme form of *M. vincta* or *M. scalariformis*. I have 2 specimens from Port Esperance, exactly similar. Fig. 2.



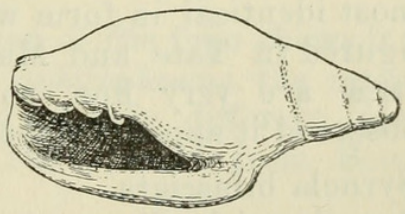
(Fig. 2.)

Mitra teresiæ.
Mitra weldi.
Mitra scita.
Marginella allporti.
Marginella cypræoides. (Fig. 3.)
Marginella minutissima.
Marginella stanislas. I now believe this to be a syn. of M. volutella.



(Fig. 3.)

Marginella tasmanica. (Fig. 4,)
Columbella badia.
Columbella roblini.
Columbella dictua. I consider now that these 3 species should be combined as varieties of one very variable form. *C. vincta*, Tate, should also be included; in fact, one of the specimens mounted as *C. badia* is the variety *vincta*. Reeves's figure *C. irrorata* is, in my opinion, another variety.



(Fig. 4.)

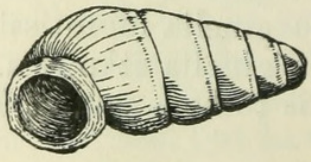
Columbella legrandi. (Fig. 5.)
Columbella minuta.
Columbella xavieriana.
Columbella miltostoma.
Conus carmeli.
Conus macleayana.
Drillia philipineri.
Drillia tœniata.
Drillia agnewi.

(Fig. 5.)

Drillia weldiana. C. Hedley, Notes on Tasmanian Conchology, 1902, identifies this as D. *fucata, Reeve.* Woods refers to this species in his description. It is certainly exotic.

Drillia immaculata.
Drillia atkinsoni.
Drillia minuta.
Drillia incrusta.
Mangelia desalesi.
Mangelia meredithæ.
Mangelia St. Gallæ.
Mangelia atkinsoni.
Cythara tasmanica
Daphnella tasmanica.
Daphnella varix.
Cancellaria tasmanica.
Tenagodus weldii.
Turritella acuta.
Turritella atkinsoni.
Turritella granulifera.
Crossea cancellata.
Crossea labiata.
Eulima micans.

Eulima tasmanica. (Fig. 6.)



(Fig. 6.)

This is undoubtedly a *Rissoia,* but is wrongly placed as a synonym of *R. dissimilis* by Tate and May. It appears to be distinct from all other species, so should stand as *R. tasmanica..* It is almost identical in form with the species figured in Tate and May as *Rissoia tumida,* but the oblique striæ are very fine, so that unless it is very carefully observed it appears smooth, and even polished.

Syrnola bifasciata.
Syrnola michaeli.
Styloptygma tasmanica.
Odontostoma tasmanica.
Parthenia tasmanica.
Elusa bifasciata.

Turbonilla angasi.

Turbonilla macleayana.

Turbonilla mariæ.

Turbonilla tasmanica. From further careful examination of the type this is certainly *Truncatella scalarina* in the undecollated state; the specimens are very white.

Aclis tristriata.

Bittium minimum.

Ceritaiopsis tasmanica.

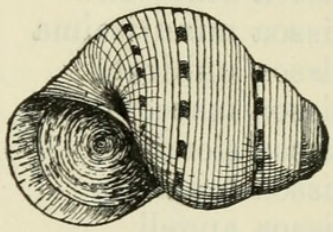
Triforis tasmanica.

Triforis tasmanica. Var. A. The specimen is broken, but what remains shows it to be *T. pfeifferi* Cr. and F.

Diala punctata.

Diala tessellata.

Diala tumida. The shell figured as such in Tate and May, Fig. 67, is not this species; the type shows it to be closer to *Rissoia olivacea* of which it may be a variety; it is longer, with flatter whorls and fewer ribs than is shown by typical *olivacea* from Port Jackson. The type is much beach worn.



(Fig. 7.)

Fossarus bulimoides. The type is a juvenile example of *Adelacteon casta*. A. Adams.

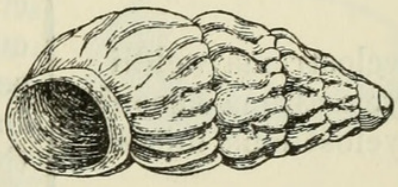
Fossarus tasmanicus.

Cingulina australis.

Littorina hisseyana. (Fig. 7.)

Rissoina St. Claræ.

Rissoina flindersii. I find this has been wrongly united with *Diala pagodula* by Tate; first in his "Revision of the Recent Rissoidæ of Australia," T.R.S.S. Aus., 1899, and similarly in Tate and May Census, p. 388. An examination of the type shows it to be a *Rissoia* of the section *Amphithalamus*, the mouth being quite characteristic, and entirely different from *Diala*. I have examples of the species from South Australia. Fig. 8.



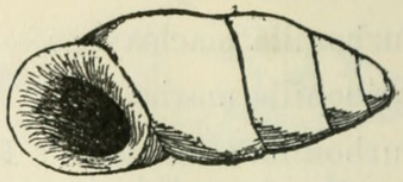
(Fig. 8.)

Rissoina gertrudis. See Notes on Tasmanian Conchology, 1902. C. Hedley.

Rissoina concatenata. Type badly broken.

Rissoa cyclostoma.

Rissoa cyclostoma. Var. rosea. This has been re-named *R. woodsi*, by Pritchard and Gatliff, P. R. S. Victoria, 1901, who rightly regarded it as distinct from *R. cyclostoma*. The types have bleached perfectly white. Fig. 9.

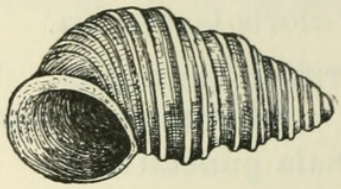


(Fig. 9.)

Rissoa fasciata.

Rissoa cheilostoma.

Rissoa agnewi. (Fig. C.) This is distinct from *R. layardi Pett.*, which will now be restored to specific rank; they are somewhat closely related, but whilst in the latter the keels are close set; in the former they are separated by a considerable interval. Fig. 70 in Tate and May, represent *R. layardi*. The type of which I have seen. Fig. 10.



(Fig. 10.)

Rissoa mariæ.
Rissoa melanura.
Rissoa atkinsoni.
Rissoa minutissima
Rissoa unilirata
Rissoa maccoyi.
Rissoa siennæ
Rissoa brazieri
Rissoa angeli.
Rissoa punctato-striata.

Cyclostrema weldii
Cyclostrema susonis
Cyclostrema micra

} The types of these three species are crushed to atoms, which disaster occured during an unfortunate removal some years ago. Happily I had carefully examined them when intact, with the result given by Tate in T. R. S. S., Aust. XXIII, Cyclostrema, and in Tate and May.

Cyclostrema josephi.

Cyclostrema immaculata. Type crushed.

Adeorbis picta. This=*Omphalius faciatus*, Born. *Vide* C. Hedley, Notes on Tasmanian Conchology, June 10, 1902.

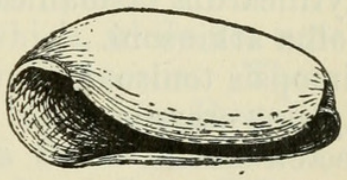
Ethalia tasmanica. This=*Modulus modulus*, Linne. Hedley loc. cit.

Liotia annulata. Type crushed. Same remarks apply to this as to *Cyclostrema*.

Liotia incerta.

Liotia tasmanica.

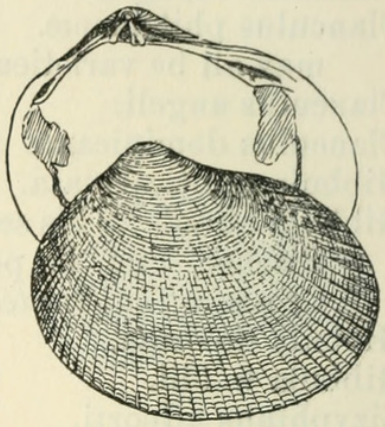
Turbo simsoni.
Turbo cuculata. This = *T. radiata*, Gmel. C. Hedley loc. cit.
Monilea rosea.
Monilea turbinata. This = *Omphalius scalaris*, Anton. Hedley loc. cit.
Clanculus aloysii.
Clanculus raphaeli.
Clanculus philomenæ. I now think that these three species may all be varieties of *C. yatesi*, Crosse.
Clanculus angeli.
Clanculus dominicana.
Gibbula multicarinata.
Gibbula aurea. This seems to be conspecific with *G. smaltata*, Fischer, and is possibly distinct from *G. tiberiana*, Crosse = *Thalotia tessellata*, Ten. Woods.
Gibbula dolorosa.
Gibbula weldii.
Zizyphinus allporti.
Zizyphinus legrandi.
Margarita tasmanica.
Diloma australis.
Euchellus tasmanicus.
Schismope atkinsoni.
Macrochisma tasmanica.
Tugalia tasmanica.
Tugalia australis.
Patella chapmani,
Patella tasmanica.
Acmæa alba.
Acmæa crusis.
Acmæa petterdi.
Acmæa marmorata.
Cylichna atkinsoni. (Fig. 11.) It is larger and more tapering than any examples of *C. pygmæa* A.Ad. that I have seen, but is otherwise very similar.



(Fig. 11.)

Aplysia tasmanica.
Ampullarina minuta seems to be young of *A. fragilis.*
Auricula dyeriana.
Dentalium weldiana.
Gastrochaena tasmanica.
Neœra tasmanica
Semele warburtoni. This = Lucina *(Codakia)* orbicularis Linne (C. Hedley loc. cit.)
Myodora tasmanica.
Gouldia tasmanica. Types considerably broken.

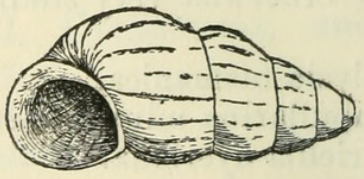
Macoma mariæ.
Chione macleayana? = C. Stutchburyi Gray juv., probably exotic.
Callista victoriæ.
Dosinia immaculata.
Rupellaria reticulata.
Lucina minima. (Fig. 12.) There are two specimens mounted on the card, representing different species. The larger example has the valves separated, and was doubtless that from which Woods described his species, as he refers to the interior; so I regard this as the type, especially as it agrees well with the description and *dimensions* given. It is very close to *L. perobliqua*, Tate, but that shell seems to be stronger and coarser in the sculpture, especially in the earlier stages of growth, when it approximates in size to *L. minima*. I regret that I have no juv. examples of *perobliqua* for comparison. The other specimen mounted is *L. tatei*. It is a much smaller shell than the other, and does not seem to have been opened. It will be noticed, too, that on a careful reading of Woods's description it will not apply to this species.



(Fig. 12.)

Diplodonta tasmanica.
Pythina tasmanica.
Cardita atkinsoni.
Mytilicardia tasmanica.
Kellia atkinsoni.
Limopsis tenisoni.
Mytilus crassus.
Pecten mariæ.

I also take this opportunity to publish a figure of Rissoia rubicunda, Tate and May. It was overlooked when preparing the figures for the Revised Census. Fig. 13.



(Fig. 13.)