[Proc. Roy. Soc. Victoria, 34 (N.S.), Pt. II., 1922.]

Art. XV.—*Additions to and Alterations in the Catalogue of Victorian Marine Mollusca.*

By J. H. GATLIFF and C. J. GABRIEL.

[Read 10th November, 1921.]

Of recent years very many changes have been made in the nomenclature of the Mollusca, not only in the generic and specific names, but also in some instances a consequential alteration in the name of the family. But as these changes have been adopted, more or less, by the British Museum, the United States National Museum; in the several States of this Commonwealth; and New Zealand, we have set out those which are necessary.

In addition to the alterations, 43 more species have been added. These include six in the Class *Cephalopoda,* obtained by the ill-fated trawler *Endeavour,* and six in the *Polyplacophora.*

At our request the Molluscan material collected by Mr. Joseph Gabriel, in 1910, for the National Museum from the cable extending from the Victorian coast to Tasmania, which was then being raised, was submitted to us for examination at the end of last year. A list of the shells thus obtained was made out and is included in the following catalogue.

As indicated herein, it provides 13 additional species; that of the genus *Daphnobela,* sp.? being of special interest, as there is no record of its previous existence. The genotype was obtained in the Eocene at Muddy Creek, Victoria.

We have to acknowledge the kind assistance of Mr. C. Hedley, Sydney; Sir Joseph Verco, and Mr. E. Ashby, Adelaide; and Mr. W. L. May, of Tasmania.

In Vol. IV., Part 5, of the Biological Results of the Commonwealth trawler *Endeavour,* Professor S. S. Berry gives a full and excellent Report of the *Cephalopoda* obtained by that vessel, and from his work we are enabled to make the following additions to, and alterations in, the naming of our Mollusca.

Class CEPHALOPODA.

Order DIBRANCHIATA.

Suborder DECAPODA.

Family ENOPLOTEUTHIDAE.

Genus **Enoploteuthis,** d'Orbigny 1844.

ENOPLOTEUTHIS GALAXIAS, Berry.

1918. *Enoploteuthis galaxis,* Berry. *loc. cit.* pp. 211-221, pl. 59-60.

Hab.—200-250 fathoms, Gabo Island, to region of Cape Everard, Victoria.

Family HISTIOTEUTHIDAE.

Genus **Calliteuthis,** Verrill 1880.

CALLITEUTHIS MIRANDA, Berry.

1918. *Calliteuthis miranda,* Berry. *loc. cit.* pp. 221-228, pl. 61-62.

Hab.—270 fathoms, S.E. x S. of Gabo Island, Victoria.

Family OMMASTREPHIDAE.

Genus **Nototodarus,** Pfeffer 1912.

NOTOTODARUS GOULDI, McCoy.

1897. *Ommatostrephes gouldi,* McCoy. Pritchard and Gatliff, these Proc., v. X., p. 243 .

1918. *Nototodarus gouldi,* McCoy. Berry. *loc. cit.* p. 228, pl. 63-66.

Hab.—60-220 fathoms, Bass Strait.

Family LOLIGINIDAE.

Genus **Loligo,** Schneider 1784.

LOLIGO ETHERIDGEI, Berry.

1918. *Loligo etheridgei,* Berry. *loc. cit.* pp. 243-249, pl. 67-68, pl. 69, f. 1, 2.

Hab.—S.E. Australia.

Family SEPIOLIDAE.

Genus **Rossia,** Owen 1834.

ROSSIA (AUSTRORossia) AUSTRALIS, Berry.

1918. *Rissoa* (*Austrorossia*) *australis,* Berry. *loc. cit.* pp. 252-258, pl. 69, f. 3, 4, and pl. 70.

Hab.—200-250 fathoms, Gabo Island to Everard grounds, Victoria.

Family CIRROTEUTHIDAE.

Genus **Opisthoteuthis,** Verrill 1883.

OPISTHOTEUTHIS PERSEPHONE, Berry.

1918. *Opisthoteuthis persephone,* Berry. *loc. cit.* pp. 290-293, pl. 81, f. 6, 7; pl. 82, f. 9, 10, and pl. 85-88.

Hab.—200 fathoms, 42 miles south and east of Genoa Bank, Victoria.

Suborder OCTOPODA.

Family POLYPODIDAE.

Genus **Polypus,** Schneider 1784.

POLYPUS VARIOLATUS, Blainville.

? 1821. *Sepia boscii,* Lesueur. Jour. Acad. Nat. Sci. Philad. v. II., p. 101 (nomen nudum).

? 1826. *Octopus variolatus,* Bl. Dict. Sci. Nat., v. XLIII., p. 186.

1897. *Octopus boscii,* Lesueur. Pritchard and Gatliff, these Proc., v. X., p. 241.

1918. *Polypus variolatus,* Bl. Berry. *loc. cit.* p. 278, pl. 79, 80, pl. 81, f. 2, 3, and pl. 82, f. 1-4.

Hab.—Eastern slopes of Bass Strait.

POLYPUS AUSTRALIS, Hoyle.

1897. *Octopus australis,* Hoyle. Prit. and Gat., these Proc., v. X., p. 241.

1918. *Polypus australis,* Hoyle. Berry. *loc. cit.* pp. 276-278, pl. 78, f. 1, 2, and pl. 81, f. 1.

Hab.—200 fathoms, off Gabo Island.

Genus **Murex,** Linne 1758.

MUREX PLANILIRATUS, Reeve.

1898. *Murex planiliratus,* Rve. Prit. and Gat., these Proc., v. X., p. 254.

1916. *Murex fimbriatus,* Lk., not of Solander, Iredale, P. Mal. Soc. Lond., v. XII., p. 93.

1917. *Murex fimbriatus,* Lk., Gatliff and Gabriel, these Proc., v. XXX., p. 21.

Genus **Typhis,** Montfort 1810.

TYPHIS PHILIPPENSIS, Watson.

Typhis cleryi, Sowb. not of Petit. Prit. and Gat., these Proc., v. X., p. 255.

Genus **Lepsiella,** Iredale 1912.

LEPSIELLA VINOSA, Lamarck.

1917. *Kalydon vinosus,* Lk., Gat. and Gab., these Proc., v. XXX., p. 22.

The following species are also transferred to this genus: *Sistrum reticulatum,* Quoy and G., and *Trophon flindersi,* Ad. and Ang.

Genus **Xymene,** Iredale 1915.

XYMENE PAIVAE, Crosse.

1898. *Trophon paivae,* Crosse. Prit. and Gat., these Proc., v. X., p. 257.

Genus **Neothais,** Iredale 1912.

This is another genus erected for Australasian forms, and will include those already listed as *Purpura succincta,* Martyn; and *P. baileyana,* Ten.-Woods.

Genus **Agnewia,** Tenison-Woods 1878.

AGNEWIA TRITONIFORMIS, Blainville.

1906. *Purpura tritoniformis,* Bl., Prit. and Gat., these Proc., v. XVIII., for 1905, p. 44.

Genus **Drupa,** Bolten 1798.

DRUPA ASPERA, Lamarck.

1898. *Sistrum asperum,* Lk., Prit. and Gat., these Proc., v. X., p. 261.

increases in surface moisture. The clearing of the land, and the substitution of cultivation or pastures for the scrub forests on the inland plains cause, according to the evidence, some improvement of the rainfall, especially during the spring months, when the green growth results in vigorous evaporation. A more general improvement results from irrigation, which ensures growth of vegetation throughout the year. It is through this means that the greatest effects are possible. The extension of irrigation along the Murray between Echuca and Renmark, and in New South Wales, about the junction of the Darling with the Murray, it is evident, will have a not inconsiderable effect in ameliorating the climate of Northern Victoria, including the Mallee. It should also increase the rainfall on the mountains from which the irrigation water are derived. And if in connection with these, large storages of water are made from the lower Murray and Darling, say, by impounding flood waters in banked-up lakes in the same way as those of the Goulburn are impounded in the Waranga basin, the possibilities, if not almost limitless, are at least very great. I see no reason why the improvement should not be equal to what would happen if an arm of the sea like Spencer's Gulf, say, up to Menindie. It has already been shown that a reasonable result of this would be an increased rainfall of from 3 to 5 inches in the neighbourhood, even as far as 170 miles inland.

If such a result could be brought about by increasing our irrigated areas, and the necessary increase in the area of land fully irrigated can surely be made, it would be hard to put any limit upon the climatic benefits which Northern Victoria and the Riverina would derive from it. Hann has shown that in New South Wales a square mile of country carries 22 more sheep per annum with a 12-inch than with an 11-inch rainfall, and that the carrying capacity increases at a more rapid rate per inch of rain as the rainfall increases, a 17-inch rainfall, for example, enabling 70 more sheep per square mile to be carried than a 16-inch one.

Such an increase in our irrigated areas is likely, therefore, not only to be worth while in its direct effects upon the country's production, but by making further irrigation possible, to have indirect effects of very appreciable magnitude.

[Proc. Roy. Soc. Victoria, 33 (N.S.), 1921]

Art. X.—*A Revision of the Genus Pultenaea, Part II.*

By H. B. WILLIAMSON.

(With Plates VI. and VII.)

[Read 9th September, 1920.]

Pultenaea humilis, Benth.

(Hook, f. Fl., Tasm., i., 91).

A shrub with flowers like those of *P. plumosa,* from which species it differs in having bracteoles with broad stipules, and flowers axillary in short leafy spikes at or near the ends of the branches, not in terminal heads. The common Victorian form is low and diffuse, with large flowers, the calyx lobes being much longer than the tube, lower ones much narrower than the upper, all hirsute with long hairs. Bracteoles are linear-lanceolate, ciliate, as long as the calyx lobes, and fixed at the base of the tube. The ovary is glabrous, with a brush of long white hairs at the top, and the style is much dilated. Grampians, Geelong, Ballarat, etc., Vic.

It appears to be confined to the southern half of Victoria.

P. humilis, var. glabrescens, var. nova.

Variat foliis fere glabris, floribus paulo minoribus saepe glabris.

From the normal this differs in having almost glabrous leaves, and somewhat smaller flowers often quite glabrous. Specimens from Grampians and Creswick, with narrow leaves have fallen wrongly under var. *angustifolia* of *P. parviflora,* Sieber, p. 132, Fl., Aust. The Grampians specimens are scantily invested with long hairs on the calyx and bracteoles, while those from Creswick have hairs only on the branchlets and pedicels. Goulburn River specimens (W. F. Gates), have larger, glabrous leaves and hairy branchlets and pedicels. Those from Sale, Vic., (T. A. Robinson), and Bairnsdale (T. S. Hart), have shorter leaves, broader towards the summit, and smaller flowers. All the specimens

This is the species already listed in these Proceedings as *Nassa glans,* of which it was considered to be a variety. Under this genus will also be included all of our species hitherto listed as *Nassa.*

Genus **Pterospira,** Harris 1897.

PTEROSPIRA ROADKNIGHTAE, McCoy.

1898. *Voluta roadknightae,* McCoy. Prit. and Gat., these Proc., v. X., p. 282.

We have examined the type of *Voluta hannafordi,* McCoy, a fossil the genotype of *Pterospira,* Harris, and consider it to be a progenitor of *V. roadknightae.* We asked the opinion of Mr. F. Chapman, Palaeontologist of the National Museum, Melbourne, as to whether he agreed with our generic classification; he decidedly coincided with us.

Genus **Livonia,** Gray 1855.

LIVONIA MAMILLA, Gray.

1908. *Voluta mamilla,* Gray. Gat. and Gab., these Proc. v. XXI., p. 371.

1909. *Voluta mamilla,* Gray. Gat. and Gab., Vic. Nat., v. XXVI., p. 117, pl. 2, 3.

Genus **Scaphella,** Swainson 1840.

SCAPHELLA MAGNIFICA, Lamarck.

1804. *Voluta magnifica,* Lamarck (Ch.) Ann. du Mus. Hist. Nat., vol. V., p. 156.

1840. *Scaphella magnifica,* Swainson. Treatise Malac., pp. 103-115, 118 and 120.

1914. *Voluta magnifica,* Chemnitz (not binomial). Gat. and Gab., these Proc., v. XXVII., p. 99.

Genus **Amoria,** Gray 1855.

AMORIA UNDULATA, Lamarck.

1898. *Voluta undulata,* Lk. Prit. and Gat., these Proc. v. X., p. 280.

AMORIA ZEBRA, Leach.

1898. *Voluta zebra,* Leach. Prit. and Gat., these Proc. v. X., p, 282.

Genus **Ericusa,** H. and A. Adam 1858.

ERICUSA SOWERBYI, Kiener.

1839. *Voluta sowerbyi,* Kr. Coq. Viv., p. 47, pl. 50.
1898. *Voluta fusiformis,* Swainson. Prit. and Gat., these Proc., v. X., p. 283.

ERICUSA PAPILLOSA, Swainson.

1898. *Voluta papillosa,* Sw. Prit. and Gat., these Proc. v. X., p. 282.

Genus **Mitra,** Martyn, 1784.

MITRA ANALOGICA, Reeve, var. VINCTA, A. Adams.

1854. *Volutomitra vincta,* A. Ad. P.Z.S., Lond., p. 134.
1874. *Mitra vincta,* A. Ad. Sowb. Thes. Con., v. IV., p. 25, pl. 23, f. 520, 521.
1876. *Mitra teresiae,* Ten.-Wds. P.R.S., Tas., p. 140.
1901. *Turris vincta,* A.Ad. Tate and May, P.L.S., N.S.W., v. XXVI., p. 361.

Hab.—Coast generally.

Obs.—Our identification was confirmed on comparison with specimens in the British Museum. This variety and the following species are closely allied, but *M. vincta* may be distinguished by the absence of the longitudinal ribs on the later whorls.

MITRA TATEI, Angas.

1878. *Mitra tatei,* Ang. P.Z.S., Lond., p. 861, pl. 54, f. 8.
1879. *Mitra weldii,* Ten.-Woods. P.R.S., Tas. for 1877, p. 93.
1899. *Turricula tasmanica,* Ten.-Wds. Prit. and Gat., these Proc., v. XI., for 1898, p. 188.
1902. *Mitra tasmanica,* Ten.-Wds. var. May. P.R.S. Tas., p.109, f. 2.

Hab.—Coast generally.

Obs.—We have been kindly favoured by the Tasmanian Museum with the loan, for examination, of the card on which are four shells, in the form of a square; the upper one on the right is what has been decided upon as the type of *Mitra tasmanica,* the upper one on the left is the shell Tenison-Woods alludes to as variety *a.* This is a very distinct species, and is figured by May,

loc. cit., and is the same as that listed by Prit. and Gat. as *M. tasmanica*, T.-Wds. Similar specimens have been sent to us from South Australia as *M. rufocincta*, A. Ad., but that species is described as impressed with transverse lines between the ribs, a character lacking in the shells sent, as also in *M. tatei*. Tenison-Woods *loc. cit.* says his species is " Small banded orange and dark brown; translucent with faint ribs on upper whorls. Long. 10, lat. 4 mm. Rather common. Long Bay and Blackman's Bay, and S.E.A." Upon examination of a very numerous series we find considerable variation, and that the ribs usually extend to the upper portion of the body-whorl, also that the colour is often blackish-brown bands on a white ground.

Under the genus *Mitra* will also be placed the shells listed as *Turricula scalariformis*, Ten.-Woods; and *Turris cinnamomea*, A. Adams.

Genus **Marginella**, Lamarck 1799.

MARGINELLA MUSTELINA, Angas.

1871. *Hyalina (Volvarina) mustelina*, Ang. P.Z.S., Lond., p. 14, pl. 1, f. 5.
1877. *Marginella stanislas*, Ten.-Wds. P.R.S. Tas. for 1876, p. 133.
1899. *Marginella albida*, Tate. Prit. and Gat., these Proc., v. XI., for 1898, p. 192.
1910. *Marginella stanislas*, Ten.-Wds. Gat. and Gab. *Id.* v. XXIII., p. 88.

Angas described the species as brown banded. Ten.-Woods states of *M. stanislas*: " Pellucid white, or marked with four zones of variously interrupted brown spots." Tate's species, *M. albida*, is white. The white variety may therefore be called *M. mustelina*, Ang. var. *stanislas*, Ten.-Woods, and Tate's name *M. albida* becomes a synonym.

MARGINELLA CRATERICULA, Tate and May.

1900. *Marginella cratericula*, Tate and May. J.R.S.S.A., v. XXIV., p. 91.
1901. *Marginella cratericula*, J. and M. P.L.S. N.S.W., v. XXVI., p. 363, pl. 26, f. 74.

Hab.—Taken off cable to Tasmania, Bass Strait.

Obs.—Size of type: Length 2.3, breadth 1.5 mm.

MARGINELLA COLUMNARIA, Hedley and May.

Marginella columnaria, Hed. and May. Rec. Austr. Mus., p. 120, pl. 23, f. 19.

Hab.—Taken off cable to Tasmania, Bass Strait.

Obs.—Size of type: Length 7.5, breadth 3.5 mm. Shell white, sub-cylindrical, triplicate.

MARGINELLA PULCHELLA, Kiener.

1830. *Marginella pulchella,* Kr. Coq. Viv., p. 27, pl. 9, f. 41 (not 40, as in text).

1911. *Marginella fulgurata,* Hed. Zool. Commonwealth trawler *Endeavour,* v. I., p. 110, pl. 7, fig. 31 only.

Hab.—Portland.

Obs.—This species has many axial undulating lines; these are thickened centrally, and near to each end, giving the appearance of encircling bands.

We also have the species from N.S. Wales, South Austr., and West Austr., and it has been sent to us from those States with the name of *M. sagittata,* Hinds, which species it resembles; we have the latter from Bahama Isls.

MARGINELLA GEMINATA, Hedley.

1903. *Marginella laevigata,* Hed., not of Braz. Mem. Aust. Mus., v. IV., p. 364, f. 89.

1912. *Marginella geminata,* Hed. Rec. Aust. Mus., v. VIII., p. 145, pl. 42, f. 28.

Hab.—Dredged in 7-8 fathoms, Western Port.

Obs.—Mr. Hedley states he mistakenly figured another shell as being *M. laevigata,* and later he described it as *M. geminata.* The earlier figure represents the shell we find, the later figure is probably drawn from an immature specimen. Mr. Hedley kindly sent us for examination and return co-types of the two species; they are very similar.

Family PYRENIDAE, replaces Columbellidae.

This change is necessary owing to *Pyrene,* Bolten 1798, being prior to *Columbella,* Lamarck 1799. *Pyrene* being a montypical genus represented by *P. rhombiferum,* Bolt., a new name he gave to *Buccinum punctatum,* Bruguiere 1789, and to the figure of

which species he referred, we only adopt his generic name as applicable to similar forms. *Columbella mercatoria* being recognised as the type of Lamarck's genus, there being no forms similar to these two in our waters, and as it has been decided to split up the great assemblage of species hitherto classed as *Columbellidae,* we have adopted the following generic names for our species.

Genus **Mitrella,** Risso 1826.

MITRELLA SACCHARATA, Reeve.

1859. *Columbella saccharata,* Rve. Conch. Icon., pl. 29, f. 187.

1901. *Columbella (Mitrella) saccharata,* Rve. Tate and May, P.L.S., N.S.W., v. XXVI., p. 366.

Hab.—Dredged Western Port; taken off cable to Tasmania, Bass Strait.

Obs.—Its nearest congener is *C. semiconvexa,* Lk., from which it may be distinguished by its narrower form and smaller size; the type is in the British Museum; locality, "Van Diemen's Land."

Others listed as *Columbella* now included in *Mitrella* are *C. semiconvexa,* Lk.; *C. austrina,* Gask.; *C. menkeana,* Rve.; *C. lincolnensis,* Rve.; *C. angasi,* Braz.; *C. tenisoni,* Tryon; *C. tenuis,* Gask.; *C. tenebrica,* Rve.; *C. nubeculata,* Rve.; *C. beddomei,* Petterd; *C. legrandi,* Ten.-Wds.; *C. lurida,* Hed.; and *C. franklinensis,* Gat. and Gab.

Genus **Aesopus,** Gould 1860.

AESOPUS CASSANDRA, Hedley.

1909. *Daphnella cassandra,* Hed. Gat. and Gab., these Proc., v. XXIX., p. 37.

1918. *Aesopus cassandra,* Hed. Jour. R.S., N.S.W., v. LI. for 1917, p. 90, No. 948a.

AESOPUS PALLIDULUS, Hedley.

1907. *Mitromorpha pallidula,* Hed. Gat., these Proc., v. XX., p. 32.

1918. *Aesopus pallidulus,* Hed. *Id.* No. 948b.

We follow Mr. Hedley in his transference to this genus of the two foregoing species. And also transfer to it *Columbella plurisulcata,* Rve., previously listed by us.

The species listed as *Mangilia gatliffi,* Verco, will also be included in the genus *Aesopus.*

Genus **Zafra,** A. Adams 1860.

This contains the small axially plicate species, which we have already listed as *Columbella atkinsoni,* Ten.-Wds.; *C. smithi,* Ang.; *C. cominellaeformis,* Tate; and *C. remoensis,* Gat. and Gab. The last-named species is not a typical form, but at present we place it in this genus.

Genus **Retizafra,** Hedley 1918.

RETIZAFRA CALVA, Verco.

1911. *Columbella cclva,* Verco. Gat. and Gab., these Proc., v. XXIV., p. 194.

1913. *Retizafra calva,* Verco. Hed., P.L.S., N.S.W., v. XXXVIII., p. 326.

This genus comprises small forms with clathrate sculpture, and includes *Columbella gemmulifera,* Hed., already listed.

Genus **Conorbis,** Swainson 1840.

CONORBIS SARCINULA, Hedley.

1905. *Bathytoma sarcinula,* Hed. Rec. Austr. Mus., v. VI., p. 53, f. 21.

1918. *Apaturris sarcinula,* Hed. Jour. R.S., N.S.W., v. LI., for 1917, p. 80, No. 831.

Hab.—Taken off cable to Tasmania, Bass Strait.

Obs.—Size of type: Length 7, breadth 4 mm.

Mr. Hedley's excellent description and figure of the species, readily enabled the identification of our shell; his single specimen was dredged in 111 fathoms 12½ miles due east of Cape Byron. Mr. Hedley and one of us compared the single specimen got off the cable with the type; they were absolutely the same in size, colour and sculpture, and both fresh shells. We do not agree in the classing of it in either of the genera named, and place it in the genus *Conorbis.*

Family TURRIDAE, replaces Pleurotomidae.

Genus **Hemipleurotoma,** Cossmann 1889.

This includes the shell listed as *Drillia quoyi,* Desmoulins.

Genus **Glyphostoma,** Gabb 1872.

GLYPHOSTOMA WALCOTAE, Sowerby.

1893. *Drillia walcotae,* Sowb. P.Z.S., Lond., p. 487, pl. 38, f. 7-8.

1909. *Clathurella walcotae,* Sowb. Verco, T.R.S., S.A., v. XXXIII., p. 307.

Hab.—Portland.

Obs.—This is the largest of the species of this genus found in our waters, and may be recognised by its broad and robust form. The size of our shell is: Length 15, breadth 8 mm.

GLYPHOSTOMA NASSOIDES, Reeve.

1845. *Pleurotoma nassoides,* Rve. Conch. Icon., v. I., pl. 29, f. 259.

1884. *Clathurella nassoides,* Rve. Tryon, Man. Conch., v. VI., p. 296, pl. 15, f. 29.

1900. *Clathurella zonulata,* Ang. Prit. and Gat., these Proc., v. XII., p. 178.

Under the genus *Glyphostoma* will also be included the species listed as *Clathurella bicolor,* Ang.; *C. denseplicata,* Dkr.; and *C. kymatoessa,* Watson.

Genus **Macteola,** Hedley 1918.

This includes the species listed as *Mangilia anomala,* Ang., and it is selected by Hedley as his genotype.

Genus **Daphnella,** Hinds 1844.

DAPHNELLA CREBRIPLICATA, Reeve.

1846. *Pleurotoma crebriplicata,* Rve., P.Z.S., Lond., p. 3.

1846. *Pleurotoma crebriplicata,* Rve. Conch. Icon. v. I., pl. 34, f. 313.

1906. *Daphnella fragilis,* Rve. Prit. and Gat., these Proc., v. XVIII., p. 51.

Genus **Syntagma,** Iredale 1918.

This includes the species listed as *Donovania fenestrata,* Tate and May.

Genus **Exomilus,** Hedley 1913.

This includes the species listed as *Drillia telescopialis,* Verco; and *Mangilia hilum,* Hed.

Genus **Mitromorpha,** A. Adams 1865.

MITROMORPHA INCERTA, Pritchard and Gatliff.

1906. *Mangilia* (?) *incerta,* Prit. and Gat., these Proc., v. XVIII., p. 50.

Genus **Nepotilla,** Hedley 1918.

This includes the species listed as *Daphnella excavata,* Gatliff; and *D. microscopica,* May.

Genus **Taranis,** Jeffreys 1870.

This includes the species listed as *Daphnella lamellosa,* Sowb.; *D. triseriata,* Verco; and *D. mayi, Verco.*

Genus **Pseudodaphnella,** Boettger 1895.

This includes the species listed as *Clathurella tincta,* Rve.; *C. modesta,* Ang.; *C. sexdentata,* Prit. and Gat.; *C. albocincta,* Ang.; *C. legrandi,* Bedd.; and *Daphnella bitorquata,* Sowb.

Genus **Daphnobela,** Cossmann 1896.

DAPHNOBELA sp.?

A single specimen was obtained off the cable to Tasmania, Bass Strait; it has not yet been described or figured.

Genus **Cypraea,** Linnaeus 1758.

CYPRAEA ALBA, Cox.

1879. *Cypraea umbilicata,* Sowb. var. alba, Cox. P.L.S., N.S.W., v. IV., p. 386.

1885. *Cypraea umbilicata,* Sowb. var. alba, Cox. Tryon, Man. Conch., v. VII., p. 181.

1888. *Cypraea umbilicata,* Sowb. var. alba, Cox. Melvill, Proc. Manchester, Lit. and Phil. Soc., p. 58.

1907. *Cypraea umbilicata,* Sowb. var. alba, Cox. Hidalgo, Monog. Viv. Cypraea, pp. 548 and 579.

Hab.—Bass Strait.

CYPRAEA ALBA, Cox, var. HESITATA, Iredale.

1900. *Cypraea umbilicata,* Sowb. Prit. and Gat., these Proc., v. XII., for 1899, p. 187.

1912. *Cypraea umbilicata,* Sowb. Verco, T.R.S., S.A., v. XXXVI., p. 211.

1916. *Cypraea hesitata,* Ire. P. Mal. Soc. Lond., v. XII., p. 93.

1918. *Cypraea armenaiaca,* Hed., not of Verco. J.R.S., N.S.W., v. LI., for 1917, p. 70, No. 709.

Mr. Iredale *loc. cit.* proves that the name of *C. umbilicata* is pre-occupied by Dillwyn. As a new name had to be found for *C. umbilicata,* Sowb., the varietal name alba, Cox, P.L.S., N.S.W., vol. IV., 1879, is entitled to become the species name, and that of *C. hesitata* may be substituted as a varietal name.

Sir Joseph Verco *loc. cit.* fully gave the history of this species, and also named, what he thought might be a variety only, a shell with apricot colouration, as *Cypraea umbilicata,* Sowb., var. *armeniaca.* The description is full, and the figure excellent. Upon comparison with Tasmanian forms of *C. umbilicata,* Sowb. he remarks: " Mine differs in shape, being more globular, higher, and wider, not only relatively, but absolutely. . . . We will hope other specimens may be secured which will determine its right to be called a good species."

Of the specimens we have seen, including those in the Australian Museum, Sydney, none could be regarded as intergrading with *C. umbilicata,* Sowb., of which we have specimens from Tasmania, also dredged off Cape Everard (living), and Lakes Entrance, Victoria, and we have seen many others.

We therefore establish *Cypraea armeniaca,* Verco, as a species.

Genus **Natica,** Scopoli 1777.

NATICA SCHOUTANICA, May.

1912. *Natica schoutanica,* May. P.R.S., Tas., p. 45, pl. 2, f. 3.

Hab.—Taken off cable to Tasmania, Bass Strait.

Obs.—Size of type: " Diameter, major 5.5, minor 4.5, height 5 mm." " Yellowish white, irregularly netted with broken zigzag lines of chestnut."

Genus **Polinices,** Montfort 1810.

This comprises species listed as *Natica plumbea,* Lk.; *N. didyma,* Ch.; *N. conica,* Lk.; *N. incei,* Phil.; and *N. beddomei,* Johnston.

Genus **Sinum,** Bolten 1798, replaces *Sigaretus,* Lamarck 1799.

Genus **Marseniopsis,** Bergh, replaces *Lamellaria,* Montagu.

Genus **Merria,** Gray, 1839, replaces *Vanikoro,* Quoy and Gaimard.

Genus **Siliquaria,** Bruguiere 1789, replaces *Tenagodes,* Guettard.

Genus **Architectonica,** Bolten 1798, replaces *Solarium,* Lamarck 1799.

Genus **Naricava,** Hedley 1913.

The species of *Adeorbis* we have listed have been transferred to the above genus; they are *A. vincentiana,* Ang.; *A. angasi, A. Adams;* and *A. kimberi,* Verco.

Genus **Epitonium,** Bolten 1798, replaces *Scala,* Klein 1753 (pre Linn.).

EPITONIUM ACULEATUM, Sowerby.

1844. *Scalaria aculeata,* Sowb. Thes. Conch., v. I., p. 86, pl. 32 bis, f. 35, 36.

1901. *Scalaria aculeata,* Sowb. Tate and May, P.L.S., N.S.W., v. XXVI., p. 379.

1906. *Scala aculeata,* Sowb. Verco, T.R.S., S.A., v. XXX., p. 143.

Hab.—Dredged in 6-8 fathoms, living, off Phillip Isl., Western Port.

We have dredged specimens 32 mm. in length by 11 mm. in breadth.

This genus will also include *S. jukesiana,* Forbes; *S. australis,* Lk.; *S. granosa,* Q. and G.; *S. tenella,* Hutt.; *S. morchi,* Ang.; *S. acanthopleura,* Verco; and *S. platypleura,* Verco.

Genus **Phalium,** Rostock 1807.

PHALIUM SINUOSUM, Verco.

1904. *Cassidea sinuosa,* Verco. T.R.S., S.A., v. XXVIII., p. 141, pl. 26, f. 7-10.

Hab.—Taken off cable to Tasmania, Bass Strait.

Obs.—Size of type: Length 24, breadth 15 mm.; differs from its nearest relative *C. adcocki,* in not having nodules on the last whorl, and the labrum is not thickened, but sinuous.

Under the genus *Phalium* are included the shells listed as *Cassis pyrum,* Lk.; *C. achatina,* Lk.; *C. semigranosa,* Lk.; *C. adcocki, Sowb.;* and *C. achatina,* Lk., var. *stadialis,* Hed.

Family STROMBIFORMIDAE, replaces Eulimidae.

Genus **Melanella,** Bowditch 1822, replaces *Eulima,* Risso 1826.

This includes species already listed as *Eulima indiscreta,* Tate; *E. commensalis,* Tate; *E. augur,* Ang.; *E. inflata,* Tate and May; *E. tryoni,* Tate and May; *E. immaculata,* Prit. and Gat.; *E. tenisoni,* Tryon; *E. orthopleura,* Tate; and *E. victoriae,* Gat. and Gab.

Genus **Mucronalia,** A. Adams 1862.

This includes our species listed as *Eulima mucronata,* Sowb., and *E. coxi,* Pilsbry.

Genus **Strombiformis,** Da Costa 1778.

This includes our species listed as *Leiostraca acutissima,* Sowb.; *L. lodderae,* Hed.; *L. kilcundae,* Gat. and Gab.; *L. styliformis,* Gat. and Gab.; *L. joshuana,* Gat. and Gab.; *Rissoa perexigua,* Tate and May; *Eulima topaziaca,* Hed.; and *E. marginata,* Ten.-Woods.

Genus **Syrnola,** A. Adams 1860.

This includes our species listed as *Pyramidella bifasciata,* Ten.-Wds.; *P. tincta,* Ang.; and *P. jonesiana,* Tate.

Genus **Leucotina,** A. Adams 1860.

This includes our species listed as *Turbonilla* (*Ondina*) *micra,* Prit. and Gat.; *T.* (*Ondina*) *casta,* A. Ad.; and *T.* (*Ondina*) *harrissoni,* Tate and May.

Genus **Cingulina,** A. Adams 1860.

CINGULINA SPINA, Crosse and Fischer.

Now classed as *Cingulina,* instead of *Turbonilla spina,* as formerly listed.

Genus **Oscilla,** A. Adams 1867.

OSCILLA TASMANICA, Tenison-Woods.

1906. *Oscilla ligata,* Ang. Prit. and Gat., these Proc., v. XVIII., for 1905, p. 59.

Both these names were published in the same year; it has now been ascertained that T.-Wds. has priority. Angas was the first to figure it. *O. ligata,* Ang., becomes a synonym.

Genus **Cerithiopsis,** Forbes and Hanley 1853.

CERITHIOPSIS CESSICUS, Hedley.

1906. *Bittium minimum,* Ten.-Woods. Prit. and Gat., these Proc., v. XVIII., for 1905, p. 59, not of Brusina, 1864.

1906. *Cerithiopsis cessicus,* Hed. P.L.S., N.S.W, v. XXX., p. 529.

Genus **Batillaria,** Benson 1842.

This includes our shell listed as *Potamides australis,* Quoy and Gaim.

Genus **Diala,** A. Adams 1861.

DIALA SEMISTRIATA, Philippi.

The shell previously listed as *Diala varia,* A. Adams, becomes a synonym, as it had already been named as above (fide Melvill and Standen, also Suter).

Genus **Melarhaphe,** Menke 1828.

MELARHAPHE UNIFASCIATA, Gray.

1827. *Littorina unifasciata,* Gray. King's Survey of Australia, v. II., App. p. 483.

1902. *Littorina mauritiana,* Lk. Prit. and Gat., these Proc., v. XIV., for 1901, p. 90.

Our shell is very similar to *mauritiana,* Lk., and the brief original description of it, as far as it goes, covers both species, but the clear and ample description by Gray enables their separation; *unifasciata* is found all round the coast of Australia; Tasmania; also in New Zealand.

Included in the genus is the species listed as *Littorina novae zealandiae,* Rve.

Genus **Liotia,** Gray 1842. (*Pseudoliotia,* Tate 1898 is a synonym.)

Our shell listed as *Pseudoliotia micans,* A. Ad., is now called a *Liotia.*

Genus **Liotina,** Fischer 1885.

The shells previously listed as *Liotia australis,* Kr.; *L. subquadrata,* Ten.-Woods; *L. tasmanica,* Ten.-Wds.; *L. hedleyi,* Prit. and Gat.; and *L. mayana,* Tate, are now classed as *Liotina.*

Genus **Liotella,** Iredale 1915.

In this genus are included *Liotia annulata,* Ten.-Woods, and *Liotia petalifera,* Hed. and May.

Genus **Cyclostrema,** Marryat 1818.

This genus has been greatly split up, and some new genera erected. We class ours already listed as follow:—

Genus **Elachorbis,** Iredale 1915.

This includes the shells already listed as *Cyclostrema caperatum,* Tate; *C. delectabile,* Tate; *C. inscriptum,* Tate; *C. harriettae,* Petterd; and *C. homalon,* Verco.

Genus **Brookula,** Iredale 1912.

This includes the shells listed as *Cyclostrema angeli,* Ten.-Wds.; *C. johnstoni,* Beddome; *C. denseplicata,* Verco; and *Scala* nepeanensis, Gatliff.

Genus **Cirsonella,** Angas 1877.

This includes the shells listed as *Cyclostrema weldii,* Ten.-Wds.; and *C. microscopica,* Gat. and Gab.

Genus **Lissotesta,** Iredale 1915.

This includes the shells listed as *Cyclostrema micra,* Ten.-Wds. (Iredale's genotype); *C. porcellana,* Tate and May; and *C. contabulatum,* Tate, var.

Genus **Orbitestella,** Iredale 1917.

This includes the shells listed as *Cyclostrema bastowi,* Gatliff (Iredale's genotype); and *C. mayi,* Tate.

Genus **Microdiscula,** Thiele 1912.

This includes the shell listed as *Cyclostrema charopa,* Tate.

Genus **Skenella,** Pfeffer 1886.

SKENELLA BRUNNIENSIS, Beddome.

1902. *Cyclostrema bruniensis,* Bedd. Prit. and Gat., these Proc., v. XIV., for 1901, p. 99.

The genus *Rissoa*, Fréminville, 1814, has also been greatly split up; we class ours already listed as follow:—

Genus **Haurakia,** Iredale 1915.

This includes the following species:—

HAURAKIA DESCREPANS, Tate and May.

1900. *Rissoa descrepans,* Tate and May. T.R.S., S.A., v. XXIV., p. 99.

1901. *Rissoa descrepans,* Tate and May. P.L.S., N.S.W., vol. XXVI., p. 391, pl. 26, f. 65.

1909. *Rissoa incompleta,* Hed. Gat. and Gab., these Proc., v. XXII., p. 41.

1918. *Haurakia descrepans,* Tate and May. Hed., Jour. R.S., N.S.W., v. LI., for 1917, p. 51, No. 498.

R. liddeliana, Hed., is also included in the genus *Haurakia.*

Genus **Merelina,** Iredale 1915.

This includes the shells listed as *Rissoa cheilostoma,* Ten.-Wds. (Iredale's genotype); *R. strangei,* Braz.; *R. hulliana,* Tate; *R. gracilis,* Ang.; *R. australiae,* Frauenf.; *R. agnewi,* Ten.-Wds.; and *R. filocincta,* Hed. and May.

Genus **Lironoba,** Iredale 1915.

This includes shells listed as *Rissoa tenisoni,* Tate; *R. imbrex,* Hed.; *R. schoutanica,* May; *R. iravadioides,* Gat. and Gab.; and *R. wilsonensis,* Gat. and Gab.

Genus **Estea,** Iredale 1915.

This includes the shells listed as *Rissoa subfusca,* Hutt. (Iredale's genotype); *R. incidata,* Frauenf.; *R. janjucensis,* Gat. and Gab.; *R. frenchiensis,* Gat. and Gab.; *R. woodsi,* Prit. and Gat.; *R. flammea,* Frauenf.; *R. pyramidata,* Hed.; *R. rubicunda,* Tate and May; *R. dubatabilis,* Tate; *R. bicolor,* Petterd; *R. erratica,* May; *R. salebrosa,* Frauenf.; *R. columnaria,* Hed. and May; *R. olivacea,* Dunker; *R. aurantiocincta,* May; *R. obeliscus,* May; also—

ESTEA TUMIDA, Tenison-Woods.

1876. *Diala tumida,* Ten.-Wds., P.R.S., Tas., p. 147.

1919. *Estea tumida,* Ten.-Wds. May, *Id,* p. 60, pl. 15, f. 9.

Hab.—Western Port.

Obs.—Size of type: Length 2.50, breadth 1 mm.

ESTEA KERSHAWI, Tenison-Woods.

1877. *Rissoina kershawi,* Ten.-Wds., these Proc., v. XIV., p. 57.

1919. *Estea kershawi,* Ten.-Wds. May, P.R.S., Tas., p. 60, pl. 15, f. 11.

Hab.—Dredged in about 8 fathoms, off Rhyll, Western Port.

Obs.—Size of type: Length 3, breadth 1.33 mm.

ESTEA MICROCOSTA, May.

1919. *Estea microcosta,* May. P.R.S., Tas., p. 61, pl. 15, f. 12.

Hab.—Off Wilson's Promontory.

Obs.—Identification endorsed by the author, who remarks: "This is closely related to *E. kershawi.* It differs principally in the much more numerous and fine ribs, and rounder mouth and its rather more cylindrical form." Size of type: Length 2.5, breadth 1.2 mm.

Genus **Amphithalamus,** Carpenter 1863.

This includes our shells listed as *Rissoa approxima,* Petterd; *R. jacksoni,* Braz.; and *R. petterdi,* Braz.

Genus **Anabathron,** Frauenfeld 1867.

This includes the species listed as *Rissoa contabulata,* Frauenf.

Genus **Epigrus,** Hedley 1903.

This includes our shells listed as *Rissoa verconis,* Tate; *R. verconis,* Tate, var. *apicilata,* Gat. and Gab.; *R. dissimilis,* Watson.

Genus **Notosetia,** Iredale 1915.

This includes our shells listed as *Rissoa atropurpurea,* Dkr.; *R. atkinsoni,* Ten.-Wds.; *R. nitens,* Dkr.; *R. simillima,* May; *R. pellucida,* Tate and May; *R. pertranslucida,* May; and *R. melanochroma,* Tate.

Genus **Subonoba,** Iredale 1915.

This includes our shell listed as *Rissoa bassiana,* Hed.

Genus **Rissopsis,** Garrett 1873.

RISSOPSIS BREVIS, May.

1919. *Rissopsis brevis,* May. P.R.S., Tas., p. 63, pl. 16, f. 19.

Hab.—Bass Strait.

Obs.—Size of type: Length 2, breadth .8 mm.; a very small white shell.

Genus **Rissoina,** d'Orbigny 1840.

RISSOINA LINTEA, Hedley and May.

1908. *Rissoina lintea,* Hed. and May. Rec. Aust. Mus., v. VII., p. 17, pl. 22, f. 9.

Hab.—Taken off cable to Tasmania, Bass Strait.

Obs.—Size of type: Length 7, breadth 2.5 mm.

Genus **Rissolina,** Gould 1861.

RISSOLINA ANGASI, Pease.

This species was listed as a synonym of *Rissoina flexuosa,* Gould, owing to its wrongful identification by Prof. Tate. *R. flexuosa* is not a *Rissolina,* and according to Mr. Hedley is a synonym of *Rissoina fasciata,* Adams. *R. crassa,* Ang., is also included in the above genus.

Genus **Phasianella,** Lamarck 1804.

PHASIANELLA PERDIX, Wood.

1914. *Phasianella perdix,* Wood. Gat. and Gab., Vic. Nat., v. XXXI., p. 82.

Genus **Gabrielona,** Iredale 1917.

GABRIELONA NEPEANENSIS, Gatliff and Gabriel.

1908. *Phasianella nepeanensis,* Gat. and Gab., these Proc. v. XXI., pp. 366 and 379, pl. 21, f. 9, 10.

Iredale has selected this species as the genotype.

Genus **Astraea,** Bolten 1798, replaces *Astralium,* Link 1807.

ASTRAEA FIMBRIATA, Lamarck.

1822. *Trochus fimbriatus,* Lk. Anim. S. Vert., v. VII., p. 12.

1902. *Astralium squamiferum,* Koch. Prit. and Gat., these Proc., v. XIV., for 1901, p. 117.

The forms described under the two above names have been considered by some to be varying forms of one species; ours is that described by Lamarck.

Genus **Cantharidus,** Montfort 1810. (*Phasianotrochus,* Fischer 1885, is a synonym.)

CANTHARIDUS EXIMIUS, Perry.

This name replaces that listed as *Phasianotrochus carinatus,* Perry, who called it a *Bulimus,* and the name *B. carinatus* had been previously used by Bruguiere.

CANTHARIDUS NITIDULUS, Philippi.

1849. *Trochus nitidulus,* Phil. Conch. Cab., p. 295, No. 383, pl. 43, f. 10.

Hab.—Portland, and off cable to Tasmania, Bass Strait.

Genus **Calliostoma,** Swainson 1840.

CALLIOSTOMA ARMILLATUM, Wood.

1828. *Trochus armillatus,* Wood. Index Test. Supplement, pl. 5, f. 5.

1901. *Calliostoma meyeri,* Phil. Prit. and Gat., these Proc., v. XIV., p. 134.

Wood's name was not previously adopted, because there was no description of the shell. The rules of the International Congress now allow a binomial name, accompanied by a figure to be sufficient.

CALLIOSTOMA COMPTUM, A. Adams.

1913. *Calliostoma comptum,* A. Ad. Hed., P.L.S., N.S.W., v. XXXVIII., p. 279.

This species was listed as *C. poupineli,* Montr., from New Caledonia. Upon consulting the original description of that species we find that it is distinct from ours.

Genus **Cantharidella,** Pilsbry 1889.

This genus includes the shell listed as *Gibbula tiberiana,* Crosse.

Genus **Calliotrochus,** Fischer 1880.

This includes the shells listed as *Gibbula tasmanica,* Petterd; *and G. legrandi,* Petterd.

Genus **Haliotis,** Linnaeus 1758.

HALIOTIS ROEI, Gray.

1826. *Haliotis roei,* Gray. King's Survey of Australia, pp. 157 and 493.

1846. *Haliotis roei,* Gray. Rve., Conch. Icon., v. III., pl. 4, f. 10.

1859. *Haliotis roei,* Gray. Chenu, Man. Conch., v. I., p. 367, f. 2739 and 2740.

Hab.—Portland.

Genus **Megatebennus,** Pilsbry 1890.

MEGATEBENNUS JAVANICENSIS, Lamarck.

1914. *Megatebennus javanicensis,* Lk. Gat. and Gab., Vic. Nat., v. XXXI., p. 82.

Genus **Diodora,** Gray 1821, replaces *Fissuridea,* Swainson 1840.

Genus **Montfortula,** Iredale 1915.

This includes the species listed as *Subemarginula emarginata,* Bl.; and *S. rugosa,* Quoy and Gaim.

Genus **Scutus,** Montfort 1810.

SCUTUS ANTIPODES, Montfort.

1810. *Scutus antipodes,* Montf. Conch, Syst., v. II., p. 58, pl. 15.

1902. *Scutus anatinus,* Donovan. Prit. and Gat., these Proc., v. XV., p. 188.

1917. *Scutus antipodes,* Montf. Hed., P.L.S., N.S.W., v. XLI., for 1916, p. 704, pl. 47, f. 7-9.

Genus **Tugalia,** Gray 1843.

TUGALIA CICATRICOSA, A. Adams.

1852. *Tugali cicatricosa,* A. Ad. P.Z.S., Lond. for 1851, p. 89.

1863. *Tugalia cicatrosa,* A. Ad. Sowb., Thes. Con., v. III., p. 222, pl. 14, f. 14.

1865. *Tugalia cicatricosa,* A. Ad. P.Z.S., Lond., p. 185.

1870. *Tugalia cicatrosa,* A. Ad., Rve. Conch. Icon., v. XVII., pl. 1, f. 7.

1890. *Tugalia cicatricosa,* A. Ad. Tryon, Man. Conch., v. XII., p. 285, f. 86, *not* 85.

1917. *Tugalia cicatricosa,* A. Ad. Hed., P.L.S., N.S.W., v. XLI., p. 698, for 1916.

Hab.—Dredged with the animal, Half Moon Bay, Port Phillip, also Western Port.

Obs.—Tryon's fig. 86 *loc. cit.* is a copy of that in Thes. Conch., and is referred to in the text and table of the plate as 86, but on the plate is wrongly numbered 85, and that of *T. carinata* 86, evidently a reversal, in error. Hedley's fig. 26, plate 52 *loc. cit.* does not represent the species. He states: "A scar on the summit, which suggested the name, was an individual and accidental feature of the type shell. It is by chance repeated in a specimen before me, and was probably caused by adherence of a *Capulus,* or some such associate."

We have obtained over 20 specimens, some of them dredged with the animal, all with the summit free from any encumbrance, and we also have similar specimens from South Australia, and cannot agree with Hedley's surmise.

The habitat of the type is given as Philippine Islands; it is more coarsely sculptured than as we find it.

Genus **Cellana,** H. Adams 1869, replaces *Helcioniscus,* Dall 1871.

CELLANA VARIEGATA, Blainville.

1825. *Patella variegata,* Bl. Dict. Sci. Nat., v. XXXVIII., p. 100.

1908. *Helcioniscus diemenensis,* Phil. Gat. and Gab., these Proc., v. XXI., p. 382.

1915. *Helcioniscus variegatus,* Bl. Hed., P.L.S., N.S.W., v. XXXIX., for 1914, p. 714.

Genus **Patella,** Linnaeus 1758.

PATELLA VICTORIAE, Gatliff and Gabriel, nom. mut.

1902. *Patella hepatica,* Prit. and Gat., not of Gmelin, these Proc., v. XV., p. 194.

PATELLA SQUAMIFERA, Reeve.

1902. *Patella aculeata,* Rve., not of Gmelin, Prit. and Gat. *Id.,* p. 193.

Genus **Nacella,** Schumacher 1817.

NACELLA PARVA, Angas.

1878. *Nacella parva,* Ang. P.Z.S., Lond., p. 862, pl. 54, f. 12.

1912. *Nacella parva,* Ang. Verco, T.R.S., S.A., v. XXXVI., p. 183.

Hab.—Portland.

Obs.—Found living on the seaweed *Cymodocea antarctica,* associated with *Nacella stowae,* Verco, and *Stenochiton cymodocealis,* Ashby. A rather constant feature is: "A single row of pale blue spots and crescent-shaped opaque markings extending from the apex centrally, more or less along the outer arc of the shell." Size of type: Diam. maj. 6, min. 3, alt. 2mm.

Genus **Patelloida,** Quoy and Gaim. 1834, replaces (*Acmae* Eschscholtz, 1828, not of Hartman 1821.

Genus **Callochiton,** Gray 1847.

CALLOCHITON MAYI, Torr.

1912. *Callochiton mayi,* Torr. P.R.S., Tas., p. 1.

1912. *Callochiton mayi,* Torr. May and Torr, *Id.* p. 28, pl. 1, f. 5-7.

1912. *Callochiton mayi,* Torr. T.R.S., S.A., v. XXXVI., p. 164, pl. 5, f. 1a-f.

Hab.—Portland.

Obs.—Size of type: Length 15, breadth 8 mm. A beautifully ornate little species. The girdle, with its dense microscopic diamond-shaped scales, longitudinally-sulcate pleural areas, and dots on the lateral areas, serve as useful recognition marks.

CALLOCHITON RUFUS, Ashby.

1900. *Callochiton rufus,* Ashby. T.R.S., S.A., p. 87, pl. 1, f. 2a-g.

1921. *Callochiton rufus,* Ashby, these Proc., v. XXXIII., for 1920, p. 150.

Hab.—Port Phillip Heads (J. B. Wilson).

Obs.—Size of type: Length 16, breadth 10 mm. Ashby *loc. cit.* says this was misidentified by Sykes as *C. platessa,* Gould.

Genus **Stenochiton,** Adams and Angas 1864.

STENOCHITON CYMODOCEALIS, Ashby.

1918. *Stenochiton cymodocealis,* Ashby. T.R.S., S.A., v. XLII., p. 70, pl. 13-14, f. 1, 4, 5, 11, 12.

Hab.—Portland.

Obs.—Size of type: Length 10, breadth 3.5 mm.; found on the seaweed *Cymodocea antarctica.*

Genus **Ischnochiton,** Gray 1847.

ISCHNOCHITON DECUSSATUS, Reeve.

1847. *Chiton decussatus,* Rve. Conch. Icon., sp. 107, pl. 18, f. 107, also pl. of "Details of sculpture," f. 107.

Hab.—Portland.

Obs.—Dr. Torr has erroneously placed this species as a synonym of *Chiton sulcatus,* Q. and G. They differ distinctly. Quoy and Gaimard's name is not available, as in 1815, in General Conchology, p. 16, pl. 3, f. 1, Wood described and figured a different shell under that name, and it is quoted by Dillwyn in his Cat. Recent Shells, p. 8.

ISCHNOCHITON IREDALEI, Dupuis.

1917. *Ischnochiton lineolatus,* Iredale and May; not of Blainville, Gat. and Gab., these Proc., v. XXX., p. 26.

1918. *Ischnochiton iredalei,* Dup. Bull. Mus. Hist., Nat., No. 7.

1921. *Ischnochiton iredalei,* Dup. Ashby, these Proc., v. XXXIII., for 1920, p. 151.

1921. *Ischnochiton iredalei,* Dup. Ashby, T.R.S., S.A., v. XLIV., for 1920, p. 284.

Obs.—This is *I. contractus,* auct. not of Reeve.

Genus **Plaxiphora,** Gray 1847.

PLAXIPHORA BEDNALLI, Thiele.

1909. *Plaxiphora glauca,* Quoy and Gaim. Gat. and Gab., these Proc., v. XXII., p. 42.

1909. *Plaxiphora bednalli,* Thiele. Revision des Systems des Chitonen, p. 25, pl. 3, f. 27-31.

Obs.—This species was identified by Bednall as *P. glauca,* Q. and G., and he sent a specimen to Thiele, who said it was not that species, and named it *P. bednalli.*

PLAXIPHORA COSTATA, Blainville.

1825. *Chiton costata,* Bl. Dict. Sci. Nat., vol. XXXVI., p. 548.

1893. *Chiton costatus,* Bl. Pilsbry, Man. Conch., v. XV., p. 105.

1902. *Plaxiphora petholata,* Sowerby. Prit. and Gat., these Proc., v. XV., p. 204.

Genus **Acanthochitona,** Gray 1821, replaces *Acanthochites,* Risso 1826.

ACANTHOCHITONA COSTATA, Adams and Angas.

1864. *Acanthochites costatus,* Ad. and Ang. P.Z.S., Lond., p. 194.

1893. *Acanthochites costatus,* Ad. and Ang. Pilsbry, Man. Conch., v. XV., p. 40, pl. 3, f. 74.

Hab.—Portland.

Obs.—Size of type. Length 18, breadth 7 mm. This was obtained in New South Wales; it is also recorded in Queensland; South Australia; and Tasmania.

ACANTHOCHITONA GATLIFFI, Ashby.

1919. *Acanthochiton gatliffi,* Ashby. T.R.S., S.A., v. XLIII., p. 398, pl. 42, f. 2-5.

1921. *Acanthochiton gatliffi,* Ashby. These Proc., v. XXXIII., for 1920, p. 152.

Hab.—Dredged off Point Cook, Port Phillip, in 8 fathoms.

Obs.—Size: Length 6, breadth 3 mm.

ACANTHOCHITONA TATEI, Torr and Ashby.

This proves to be a synonym of *A. granostriatus,* Pilsbry.

Genus **Rhyssoplax,** Thiele 1893.

Under this new genus are now classed the species listed as *Chiton bednalli,* Pilsbry; *C. tricostalis,* Pilsbry; *C. jugosus,* Gould; *C. exoptanda,* Bednall; *C. verconis,* Torr and Ashby; and *C. calliozona,* Pilsbry.

CHITON LIMANS, Sykes.

This name drops, and must be deleted from our list. It had been revived by Sykes, but as Ashby has pointed out in his report on the Bracebridge Wilson collection of Chitons in the National Museum, dealt with by Sykes, the shells there to which the name of *C. limans* was given proved to be *C. tricostalis,* Pilsbry.

There will be other alterations made in the nomenclature of the Polyplacophora not yet definitely decided upon. Ashby and other workers are dealing with the subject.

Genus **Rhizorus,** Montfort 1810, replaces *Volvulella,* Newton 1891.

Genus **Cylichnella,** Gabb 1873, replaces *Bullinella,* Newton 1891.

Genus **Bullaria,** Rafinesque, replaces *Bulla,* Linne 1767.

Genus **Ringicula,** Deshayes 1838.

RINGICULA GRANDINOSA, Hinds.

1844. *Ringicula grandinosa,* Hinds. P.Z.S., Lond., p. 96.
1878. *Ringicula grandinosa,* Hinds. Braz. P.L.S., N.S.W., v. II., p. 78.
1893. *Ringicula grandinosa,* Hinds. Pilsbry, Man. Conch., v. XV., p. 409, pl. 47, f. 72.

Hab.—Port Albert (Worcester).

Obs.—A stout shell, whorls rounded. "The last large, subquadrate, rotund."

Genus **Tethys,** Linné 1758, replaces *Aplysia,* Linne 1767.

Genus **Kerguelenia,** Mabille and Rochebrune 1887.

This genus includes *Siphonaria stowae,* Verco, previously listed.

Genus **Gadinia,** Gray 1824.

GADINIA CONICA, Angas.

1867. *Gadinia conica,* Ang. P.Z.S., Lond., pp. 115 and 220, pl. 13, f. 27.

This name replaces that for the shell listed as *G. angasi,* Dall.

Genus **Dentalium,** Linnaeus 1758.

DENTALIUM ERECTUM, Sowerby.

1860. *Dentalium erectum,* Sowb. Thes. Conch., v. III., p. 99, pl. 13, f. 55.

Hab.—Taken off cable to Tasmania, Bass Strait.

Genus **Dacosta,** Gray 1858.

This includes the species listed as *Clavagella australis,* Lk.

Family LATERNULIDAE replaces Anatinidae.

Genus **Laternula,** Bolten 1798, replaces *Anatina,* Lamarck 1809.

Genus **Myodora,** Gray 1840.

MYODORA ANTIPODUM, E. A. Smith.

1880. *Myodora antipodum,* E. A. Smith. P.Z.S., Lond., p. 585, pl. 53, f. 7, 7a.

1913. *Myodora antipodum,* E. A. Smith. Suter, Man. N.Z. Moll., p. 1027, pl. 55, f. 10a.

Hab.—Taken off cable to Tasmania, Bass Strait.

Obs.—Size of type: Length 9, width 13.33, diam. 2 mm. Smith compares it with *M. pandoriformis,* Stutch.

Genus **Thraciopsis,** Tate and May 1900.

THRACIOPSIS SPECIOSA, Angas.

1869. *Thracia speciosa, Ang.* P.Z.S., Lond., p. 48, pl. 2, f. 12.

Hab.—Frankston, Port Phillip. Dredged Western Port.

Obs.—Size of type: Long. 23, alt., 12, lat. 6 mm.

Genus **Anapella,** Dall 1895.

ANAPELLA TRIQUETRA, Hanley.

1914. *Anapella triquetra,* Han. Gat. and Gab., Vic. Nat., v. XXXI., p. 82.

Genus **Syndesmya,** Recluz 1843.

SYNDESMYA EXIGUA, H. Adams.

1903. *Semele exigua,* H. Ad. Prit. and Gat., these Proc., v. XVI., p. 113.

1914. *Syndesmya exigua,* H. Ad. Lamy, Jour. de Conch. for 1913, v. LXI., p. 294, pl. 8, f. 4-6.

Genus **Gari,** Schumacher 1817.

GARI LIVIDA, Lamarck.

1818. *Psammobia livida,* Lk. Anim. S. Vert., v. V., p. 515.

1818. *Psammotea zonalis,* Lk. *Id.* p. 517.

1903. *Gari zonalis,* Lk. Prit. and Gat., these Proc., v. XVI., p. 113.

1914. *Psammobia, livida,* Lk. Dautz. and Fisch., Jour. de Conch. for 1913, v. LXI., p. 224, pl. 7, f. 4-6; and they state that *P. zonalis* is a synonym.

Genus **Pseudoarcopagia,** Bertin 1878

PSEUDOARCOPAGIA VICTORIAE, Gatliff and Gabriel.

1914. *Tellina (Arcopagia) victoriae,* Gat. and Gab., Vic. Nat., v. XXXI., p. 83.

Genus **Hemidonax,** Morch 1870.

HEMIDONAX AUSTRALIENSE, Reeve.

1914. *Hemidonax australiense,* Rve. Gat. and Gab., Vic. Nat., v. XXXI., p. 83.

Genus **Donax,** Linnaeus 1758.

DONAX SORDIDUS, Reeve.

1845. *Donax sordidus,* Rve. Ann. and Mag. Nat. Hist., v. XVI., p. 59.

1848. *Donax sordida,* Rve. Krauss Sudafr. Moll., p. 6, pl. 1, f. 4.

1854. *Donax sordidus,* Rve. Conch. Icon., v. VIII., pl. 5, f. 32.

Hab.—Portland.

Obs.—Size of our shell: Antero-posterior diameter 23, umbo-ventral diam. 16 mm.

Genus **Lioconcha,** Morch 1883.

This includes the species listed as *Circe angasi,* E. A. Smith.

Genus **Callanaitis,** Iredale 1917.

CALLANAITIS DISJECTA, Perry.

1903. *Chione disjecta,* Perry. Prit. and Gat., these Proc., v. XVI., p. 122.

1913. *Chione disjecta,* Perry. Suter, Man. N.Z. Moll., p. 989, pl. 61, f. 5.

Genus **Katelysia,** Romer 1857.

This includes the species listed as *Chione strigosa,* Lk.; *C. scalarina,* Lk.; and *C. peronii,* Lk.

Genus **Clausinella,** Gray 1851.

This includes the species listed as *Chione placida,* Phil.

Genus **Gomphina,** Morch 1853.

GOMPHINA UNDULOSA, Lamarck.

1914. *Gomphina undulosa,* Lk. Gat. and Gab., Vic. Nat., v. XXXI., p. 83.

Genus **Macrocallista,** Meek 1876.

This includes the species listed as *Meretrix disrupta,* Sowb.; *M. planatella,* Lk.; *M. kingii,* Gray; and *M. regularis,* Smith.

Genus **Bassina,** Jukes-Browne 1914.

This includes the species listed as *Meretrix paucilamellata,* Dkr., and Jukes-Browne selects it as the genotype.

Genus **Pullastra,** Sowerby 1826.

This includes the species listed as *Tapes fabagella,* Desh., and *Tapes galactites,* Lk.

Genus **Myrtaea,** Turton 1822.

MYRTAEA BOTANICA, Hedley.

1903. *Lucina brazieri, Sowb.* (*as Tellina*), Prit. and Gat., these Proc., v. XVI., p. 138, not *T. brazieri,* Sowb., 1869.

1918. *Myrtaea botanica,* Hed. *nom. mut.* J.R.S., N.S.W., v. LI., for 1917, p. 18, No. 177.

This genus also includes the species listed as *Lucina mayi,* Gat. and Gab.

Genus **Codakia,** Scopoli 1777.

This includes the species listed as *Lucina minima,* Ten.-Wds.; *L. paupera,* Tate; and *L. tatei,* Ang.

Genus **Divaricella,** Von Martens 1880.

DIVARICELLA CUMINGI, A. Adams and Angas.

1863. *Lucina (Cyclas) cumingi,* Ad. and Ang., P.Z.S., Lond., p. 426, pl. 37, f. 20.

1903. *Lucina (Divaricella) huttoniana,* Vanatta. Prit. and Gat., these Proc., v. XVI., p. 139.

1913. *Divaricella cumingi,* A. Ad. and Ang. Suter, Man. N.Z. Moll., p. 913, pl. 58, f. 18.

This is the species listed by Tenison-Woods in his Tasmanian Census of Marine Shells as *Lucina divaricata, L.*

Genus **Cyamiomactra,** Bernard 1897.

CYAMIOMACTRA BALAUSTINA, Gould.

1861. *Kellia balaustina,* Gould. Proc. Bost. Soc. Nat. Hist., v. VIII., p. 33.

1909. *Cyamiomactra nitida,* Hed. Gat. and Gab., these Proc., v. XXII., p. 45.

1914. *Cyamiomactra balaustina,* Gould. Gat. and Gab., Vic. Nat., v. XXXI., p. 84.

1915. *Cyamiomactra balaustina,* Gould. Hed., P.L.S., N.S.W., p. 699, pl. 77, f. 2, 3.

Genus **Coriareus,** Hedley 1907.

This includes the shell listed as *Montacuta semiradiata,* Tate.

Genus **Condylocardia,** Bernard 1896.

CONDYLOCARDIA SUBRADIATA, Tate.

1888. *Carditella subradiata,* Tate, T.R.S., S.A., v. XI., p. 62, pl. 11, f. 7.

1908. *Condylocardia subradiata,* Tate. *Id.* v. XXXII., p. 358, pl. 17, f. 25-28.

Hab.—Taken off cable to Tasmania, Bass Strait.

Obs.—Size of type: Antero-posterior diam. 13, umbo-ventral diam. 12.5 mm.

Genus **Venericardia,** Lamarck 1801.

VENERICARDIA ROSULENTA, Tate.

1887. *Cardita rosulenta,* Tate. T.R.S., S.A., v. IX., p. 69, pl. 5, f. 3.

1911. *Venericardia rosulenta,* Tate. Hed. Zool. Commonwealth trawler *Endeavour,* v. I., p. 97, pl. 17, f. 4.

Hab.—Taken off cable to Tasmania, Bass Strait.

Obs.—Size of type: Antero-posterior diam. 21, umbo-ventral diam. 17 mm. Hedley records, *loc. cit.,* a specimen 45 mm. in length.

The shells listed as *Cardita* are now classed as *Venericardia,* and the genus *Cardita* is now used for those species previously listed as *Mytilicardia.*

Genus **Neotrigonia,** Cossmann 1918.

This includes the shell listed as *Trigonia margaritacea,* Lk.

Genus **Nuculana,** Link 1807, replaces *Leda,* Schumacher 1817.

NUCULANA DOHRNI, Hanley.

1861. *Leda dohrni,* Han. P.Z.S., Lond., p. 242.

1871. *Leda dohrnii,* Han. Sowb., Conch. Icon., v. XVIII., pl. 9, f. 54.

Hab.—Taken off cable to Tasmania, Bass Strait.

The genus *Nuculana* includes the species already listed as *Leda.*

Genus **Modiolus,** Lamarck 1799.

This replaces *Modiola,* Lk., and the species listed as such will be changed accordingly.

Genus **Musculus,** Bolten 1798, replaces *Modiolaria* Loven 1846.

Genus **Pinctada,** Bolten 1798.

This includes the shell listed as *Meleagrina margaritifera,* L.