

*Conus marmoreus* Linne

# THE MALACOLOGICAL SOCIETY OF AUSTRALASIA Inc. VICTORIAN BRANCH BULLETIN

(Mailed to financial members of the Society within Victoria)

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EDITORS Val & Don Cram. Tel. No. 9792 9163

ADDRESS: 6 Southdean Street, Dandenong, Vic. 3175

EMAIL: donald.cram@bigpond.com

VIC. BR. BULL. NO. 277

FEBRUARY/MARCH 2015

## NOTICE OF MEETING

The next meeting of the Branch will be held on the 16<sup>th</sup> of February at the Melbourne Camera Club Building, cnr. Dorcas & Ferrars Sts South Melbourne at 8pm. This will be a Member's night.

The March meeting will be on the 16<sup>th</sup>. This will be a Member's night unless otherwise advised.

Supper and Raffles as usual.

### **Meeting dates for 2015**

February 16<sup>th</sup>  
May 18<sup>th</sup>  
September 21<sup>st</sup>

March 16<sup>th</sup>  
June 15<sup>th</sup>  
October 19<sup>th</sup>

April 20<sup>th</sup>  
August 17<sup>th</sup>  
November 16<sup>th</sup>

### **Office Bearers for 2015**

Sec. Treasurer Michael Lyons  
MSA Council Representative Platon Vafiadis  
Bulletin Editors Val & Don Cram  
Meeting Reporter Michael Lyons  
Bulletin Despatch Chris & Fred Bunyard  
Bulletin Printing Chris & Fred Bunyard  
Branch Correspondence for ASN Geoff Macaulay  
Librarian Simon Wilson

### **Committee**

Michael Lyons  
Don Cram  
Val Cram

All bulletin's 1-276 have now been digitised. Jack Austin has compiled a complete index that can be added to as subsequent issues are published. We thank Jack for his persistence with this long and tedious task, which has assisted to insure that the history of the Victorian Branch has been preserved.

Secretary / Treasurer Michael Lyons Tel. No. 9894 1526

### Acting Chairman's Report for 2014

2014 was a sad year for the Victorian Branch with the passing in March of Edna Tenner, who was our Branch Secretary from 1976 through to 2005. Speakers this year included Dr Fred Wells who spoke on preventing marine pests from arriving in Australia at our February meeting and Branch member Simon Wilson who spoke on Diving adventures in the Recherche Archipelago (May) and the Lower Eyre Peninsula (October). Other meetings consisted of member's nights and thanks go out to everyone who contributed.

Thanks also go to Don and Val Cram for their ongoing editing of our Branch Bulletin; Chris and Fred Bunyard for printing and posting the Branch Bulletin/ supplying shells for our raffles and Simon Wilson for being librarian and taking minutes at our meetings. Thanks also go to everyone who has contributed articles for the Branch Bulletin.

Special thanks also go to Alena Bubenicek who has supplied refreshments at our meetings for many years but has decided to relinquish this role, with Simon Wilson now taking up these duties.

Don Cram has completed the enormous task of digitising our Branch Bulletin and currently issues 169 through to 274 can be accessed via the Society's website [http://www.malsocaus.org/?page\\_id=91](http://www.malsocaus.org/?page_id=91)

Looking back through early editions of the Branch Bulletin provides fascinating reading. One thing that struck me was the annual report from Feb/March 1979, which stated that monthly Branch meetings attracted an average of 22 attendees. Unfortunately, these days, attendances do not even approach this number and new active members are urgently required to ensure the ongoing vitality of the Branch.

Finally I wish all members a happy and prosperous 2015 and a Merry Christmas and happy New Year.

Michael Lyons acting Chairman

### CHANGES TO BIVALVES NOMENCLATURE

Most malacologists will be aware that in 2010 a major work on bivalve nomenclature by Dr Markus Huber was published. This is not a book for light, bedtime reading being large, heavy and not the easiest to read as the "Special Notes" could be classified as fast and furious. Assimilating the knowledge and changes contained within, requires concentration. And there is more to come, as a number of families were not treated in this volume. Dr. Huber is currently working on those families.

Over the next year, or more, it is planned to document these changes to the Australian species, with particular reference to "Bivalves of Australia" Volume 1 by Lamprell and Whitehead and Volume 2 by Lamprell and Healy. The web-sites, "Codes for Australian Aquatic Biota", <http://www.marine.csiro.au/caab/> and World Register of Marine Species (WoRMS) <http://www.marinespecies.org/> have both been used as references. It is clear that both sites have accepted the changes made by Dr. Huber with an occasional discrepancy as to distribution which will be noted when the case arises although in some cases there is no distribution data at all.

The families will be treated in no particular order. Some are more complicated and will require more detail regarding changes than others. As of 14/10/2014, the following families appear to be as recorded in "BOA" -- but tomorrow that could change. YOLDIIDAE SAREPTIDAE PULVINITIDAE GRYPHAEIDAE ANOMIIDAE CARDILIIDAE and CLEIDOTHAERIDAE

Changes to NOETIIDAE, checked 14/10/2014 ---

"Bivalves of Australia Volume 2", Lamprell and Healy. p. 62, species numbers 98 – 105.

98 *Sheldonella repenta* (Iredale, 1939)

New name – *Didimacar tenebrica* (Reeve, 1844)

It is noted in 'BOA' that Reeve's species is 'very similar'. *Arca nigra* Lamy, 1907, also mentioned as being similar, is accepted on WoRMS as a valid species. Distribution from WoRMS is "Indian Ocean".

Huber states “Arabia – Japan” under the illustration, p.146, which appears to be a more squarish specimen than those found attached under rocks in the central Qld, Whitsunday area, and illustrated in BOA which gives distribution as N Qld to NT. Huber notes that the shape is “extremely variable”.

99 *Sheldonella venustopsis* (Iredale, 1939)

New name – *Sheldonella lateralis* (Reeve, 1844)

Distribution data on WoRMS is Madagascar and Tanzania. CAAB records it as a current Australian species. Iredale gave it a name and BOA gives distribution as N Qld to NT.

100. *Striarca olivacea* (Reeve, 1844)

New name – *Estellacar olivacea*

Huber notes the distribution as “India – Borneo” p. 146, under the illustration.

101. *Arcopsis afra* (Gmelin, 1791)

Deleted from the Australian fauna as it was a misidentification. West African species, illustrated in Huber on p. 147.

102. *Arcopsis symmetrica* (Reeve, 1844) (correction of "symmrica")

New name – *Striarca symmetrica* Illustrated by Huber, p.147 with distribution of South Africa – Japan. *Gabinarca protrita* Iredale, 1939 is a synonym.

103. *Arcopsis aceraea* (Melvill & Standen, 1899)

New name – *Mulinarca aceraea*. *Mulinarca* is considered to be “monospecific Australian”.

104. *Arcopsis deliciosa* (Iredale, 1939) New name – *Verilarca deliciosa*

105. *Arcopsis bivia* (Iredale, 1939) New name – *Verilarca bivia*

This species is illustrated, p.146, with a distribution of Pakistan -China. *Arca sinensis* Thiele & Jaeckel, 1931 is regarded as a synonym.

Two additional species have been added to the Australian list.

1. *Striarca pisolina* (Lamarck, 1819)

*Gabinarca pellita* Iredale 1939 is a synonym.

2. *Estellacar saga* Iredale, 1939

This species has been resurrected from the synonymy of *Estellacar olivacea* as shown in BOA.

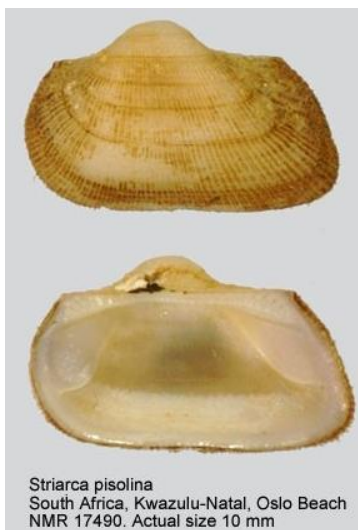


Image from “WoRMS” website



*Estellacar saga*

Image from Philippine Marine Mollusks  
Published by ConchBooks

### THREE SOUTH-EASTERN AUSTRALIAN ELLOBIIDS THAT HAVE NOT BEEN FOUND IN VICTORIA

Jack Austin recently gave me a large number of very small shells from his “difficult or too hard” basket, and left me to deal with them as I saw fit. Included among a large number of treasures, there was a single very small shell, obviously from family Ellobiidae, but quite definitely not one of those described in my recent Volume 3 of “Gorgeous Gastropods”. Jack’s specimen was from Largs Bay, South Australia, very close to Outer Harbour. In hunting for its identity, I discovered that there were three species from this part of the world that I had omitted from my compilation. There are two reasons for this, the first being that I was generally concentrating on those shells known from Victoria. The second reason was that I was simply not looking carefully enough. The following descriptions may now be added to those on pages 154 to 156 of “Gorgeous Gastropods Vol. 3”.

#### *Laemodonta ciliata* (Tate, 1878)

*Plecotrema ciliata* Tate, Trans. Roy. Soc. S.A. 2, 1878: 135, Pl. 5, figs. 7a, 7b

Shell imperforate, fusiformly ovate, solid. Surface with incised longitudinal lines and regularly wrinkled transversely. At the intersections of the lines it is punctately impressed and ciliated. Whorls 7, scarcely convex, with one shallow groove near the suture, the last forming 3/4 of the total length. Pillar with a posterior white tubercular tooth and an anterior compressed spiral plait; columella with a similar plait, but smaller. Outer lip with two teeth. Columella expanded and reflected at the lower angle to form a false umbilicus.

**Colour:** shining brown and black, with a narrow light-coloured band near the suture and between which is a reddish band. The cilia are yellowish-brown. Animal with foot and neck bluish-grey, muzzle with dark annular streaks, tentacles with dark annular colouration. **Length** 7mm, breadth 4mm.

**Range:** Adelaide to about Streaky Bay, S.A.; type locality Port Adelaide. This shell is the one from Largs Bay in Jack Austin’s collection. It lives on samphire flats in association with *Salinator fragilis* and *Ovatella myosotis*.



Figures from Tate, 1878

It has been claimed (Hubendick in Proc. Mal. Soc. London 32(3), 1956) that this species is a synonym of *Plecotrema octanfracta* Jonas, 1845, (pictured at right) a common shell with a wide range across the Indo-Pacific, from the Seychelles to Hawaii. *P. octanfracta* is of a similar general shape. Its sutures are distinct and it is sculptured with fine, smooth spiral grooves that produce low, but distinct, spiral cords, 5 or 6 on each whorl. These are bisected by axial macrostriae. The interior of the outer lip has 2 strong denticles and the columella has 3 strong folds. The colour is pale to mid brown, often with a paler pre-sutural band on the body whorl.



#### *Melosidula zonata* (H. and A. Adams, 1855)

*Cassidula zonata* H. and A. Adams, Proc. Zool. Soc. London for 1854 (1855): 32

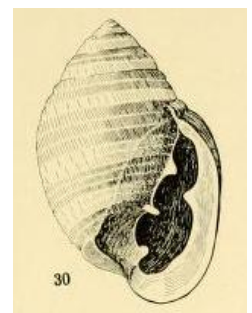
Shell imperforate, ovate-conoidal, slightly striated and sculptured with distant punctured spiral striae, one of which near the suture is deeper than the others; spire conoidal, rather pointed. Whorls 7, almost flat, the last being three fifths of the total length, somewhat inflated above, attenuated at base. Aperture sinuately oblong; parietal plaits 2, the upper minute, punctiform, the other compressed, nearly horizontal, continued externally into the keel, which surrounds the umbilical region. Columellar plait compressed, rather converging towards the other, produced externally to the margin. Peristome dilated; right margin thickened externally into a crest, bearing within, in the middle, a single tooth. Columellar margin reflexed and affixed.

**Colour:** chestnut, with three pale bands. **Length:** 10mm, breadth 6mm

**Range:** Moreton Bay, Qld to Sydney; type locality Sydney, under stones, low water.

**Note:** The original description was in Latin and rather brief. The above full description is by Pfeiffer in Catalogue of the Auriculidae, Proserpinidae and Truncatellidae in the British Museum, 1857: 84.

Hedley, in providing the first figure of this shell, pictured herewith from Proc. Linn. Soc. NSW 30, 1906, stated that it is found under sticks and stones near high water mark along



the edge of mangrove swamps. He also claimed that a shell described by Tenison Woods from northern Tasmania is a synonym. For comparison, I have given Tenison Woods' full description below.

***Auricula (Rhodostoma) dyeriana* Tenison Woods, 1876**

*Auricula (Rhodostoma) dyeriana* Tenison Woods, Proc. Roy. Soc. Tas. for 1875 (1876): 158

Shell ovate, inflated, subumbilicate, thick, striated, the striae regular and distant. Whorls 6, suture obsolete, spire conical, flattened, aperture entire. Outer lip thickened, bilabiate, with a triangular notch within; inner lip bidentate. Umbilicus closed and margined. **Colour:** greenish white, with two fulvous bands; aperture shining, pale fulvous. **L.** 14mm, breadth 9mm. **Type locality** north coast of Tasmania, brackish waters.

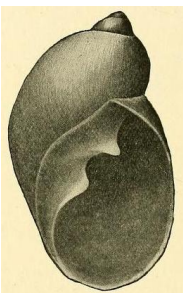
Further to this, Tenison Woods (in Proc. Roy. Soc. Tas. 1879: 70) noted that ...."I should mention that Mr. Petterd considers that *Auricula dyeriana* = *cassidula zonata*, H. and A. Adams....In this opinion I cannot at present concur."

If Petterd was correct, this extended the range of *M. zonata* as far as northern Tasmania. If not, then we have another species from Tasmania. The number of teeth on the outer lip and also on the columella/inner lip is different in the two descriptions. I have no figure of *A. dyeriana*.

***Marinula parva* (Swainson, 1856)**

*Cremnobates parva* Swainson, Pap. Proc. Roy. Soc. Van Diemens Land, 3(1), 1855: 44, Pl. 7, fig. 3

Shell ovate, thin, light, covered with an epidermis; whorls 4, the last very large, convex, a little flattened outside the suture; the base flatly convex. Protoconch minute, spire slender, pointed; pillar plaited, the first close to the top of the aperture, the second more towards the base. **Colour:** whitish or light brown, the mouth light to dark brown. **Length** 7.5mm.



**Type locality:** Oyster Cove, near Hobart, Tas. According to Cotton (South Australian Mollusca: Archaeogastropoda, 1959: 410), this species is found in Tasmania and S.A. It was also recorded from the Antipodes Islands by Hedley and Suter but this appears to be incorrect.. Inhabits with *C. cornea* (= *Ophicardelus ornatus*) but is much smaller, more slender, and the plaits proportionally much larger.



Figure from Swainson, 1856

Fig. at left from Hedley and Suter, Proc. Mal. Soc. London Vol. 9, 1910: 152

Alan Monger

**Jean Dyke 7.4.1919 – 4.10.2014**

Jean joined the Malacological Society of Australia in the early 1960's, having become interested in shell collecting and sea - life while entertaining her children, Elizabeth, Beverly and Geoffrey, on the beaches and reefs of Point Lonsdale during school holidays at her in-laws' beach-house just behind the shopping centre. Jean regularly attended meetings during the 1960s, 1970s, and early 1980s, until driving at night became a worry.

After Council of the Society moved to Sydney in 1965, she became a member of the committee of the newly formed Victorian Branch. In 1968, in response to enquiries from local members unable to attend meetings, the Victorian Branch Bulletin was established, both as notice of meeting and as a newsletter of happenings of members, the Branch, and the Society.

Jean was editor of the first seven issues from August 1968 to April 1970. In latter years, membership of the Society waxed and waned, but always she retained an interest in its doing and in the wider world of shells, sea-life and collectors.

Curiously, Jean's maiden name was Pritchard. I know not if she was related to G.B. Pritchard, senior author with J.H. Gatliff of the nine part "Catalogue of the Marine Shells of Victoria" (*Proceedings of the Royal Society of Victoria*, volumes 10-18, 1898-1906). It would be nice to think she was.

Robert Burn

### The weight of Cowry shells and its taxonomic significance.

When R.J.Griffiths described *Cypraea (Notocypraea) wilkinsi* sp. n. in 1959, he not only described the external morphology of the animal and figured the radula, but he created two tables: Measurements, Table 1 and Details of type specimens, Table 2.

Details of shell measurements included: Length of shell in mm: Width and height as a percentage of length: Number of labial and columellar teeth (corrected to a shell length of 25mm - See Schilder & Schilder (1938): Protrusion of the lower edge of the fossula (percentage of length) : Angle of aperture (degrees) : Width across aperture (percentage of length) and weight – length ratio = (weight of shell divided by the length cubed multiplied by 10000 to facilitate handling of results.

The formula Weight - Length ratio =  $\left(\frac{\text{weight of shell in grams}}{L^3}\right) \times 10000$  is combined with Schilder and Schilders

$$\text{Reduced teeth (Shell 25 mm length)} = 7 + \left(\frac{\text{number of teeth counted} - 7}{\text{length of shell in "mm"}}\right) \times \sqrt{\frac{25}{\text{length of shell in "mm"}}$$

Reference to these tables has recently assisted me in tracking down and verifying the paratypes 6 and 7 of *Notocypraea. wilkinsi*, from the collection of C.J.Gabriel, which were dredged alive in Western Port Bay on bryozoa. These specimens have now been registered (F 27038) and added to the type collections of Museum Victoria.

In his 1962 “Review of the Cypraeidae genus *Notocypraea*”, he not only expanded the table to include the number of spots on the labial and columellar side, but produced a table with the mean readings of nine species. The number of shells measured varied between 8 (*euclia*) and 62 (*comptonii*), followed by the standard deviation.

For many years now I have been using a self created formula in conjunction with the weight to length formula of Griffiths which included the (length x width x height : volume), which has proved ideal for comparative purposes. Weight -Volume ratio =  $\left(\frac{\text{Weight of shell, grams}}{L \times W \times H}\right) \times 10000$

In September 2013 Lorenz and Morrison described a new sub species of *Notocypraea* from eastern and southern Tasmania as *Notocypraea declivis dennyorum* as it “differs from the nominate northern subspecies by its smaller size, darker coloration and denser, more numerous, marginal spotting. The relative mass (mR) is greater than the typical *declivis* (G.B.Sowerby11, 1870”. The term relative mass was introduced by Bridges and Lorenz in March 2013 when they published “A revised Morphometric Formula for the Characterization of Cowries”.

**What is relative mass ?** In simple terms, it is the mass density (mD) of a cowry shell expressed as a percentage of the (mD) of a rectangular prism, or block of aragonite of the same dimensions in mm’s as the shell : where (mD = mass (actual, weighed in grams) and the “density of aragonite, the primary component of cowry shells: 0.00293 grams per cubic mm”.

This can be calculated by the formula ——— Relative mass (mR) =  $\left(\frac{\text{mD}}{(L \times W \times H \times 0.00293)}\right) \times 100$

Bridges and Lorenz also used the term tooth density (labial and columellar tooth density, ltd & ctd), instead of reduced teeth when expressing the Schilder & Schilder formula. Although the formulae of Griffiths and my own, accurately reflect results and are useful for comparative purposes, the term relative mass has a scientific basis of construction and the best so far devised.

For several years I have been studying deep water shells from Bass Strait and south eastern Australia which include the names *subcarnea*, *albata*, *emblema*, *molleri* and *dissecta*, of which all the type specimens have been personally examined and documented. A number of shells and radulae mounted and documented by Griffiths relating to these types, either illustrated or retained in museums have been studied along with several specimens from private collections and from the diving activities of Simon Wilson and Michael Lyons, who have been most supportive of this project.

Other than the well documented radular and living animal morphology and pending DNA studies, the study of the shells has revealed much interesting information, which will all be combined in a future paper. One has to admire the work of Griffiths, not only for the tables he constructed, but his seminal studies of the living animal and radulae of the genus *Notocypraea*, which only now, after over 50 years since the publication of his review are becoming accepted.

The accompanying table is a sample of one fully adult specimen of several species to illustrate the methods used. This is a relatively simple procedure, as we now have digital scales, computer programs and scientific calculators avoiding long and tedious calculations. It is interesting to note that if you multiply the weight to volume ratio by 3.412969 it will then equal the relative mass.

Species	Length mm	Width mm L-W %	Height mm L-H %	LT ltd	CT ctd	Weight (mD)	Wt-L R Griffiths	Wt-Vol R	Relative mass Bridges/Lor
<i>N.angustata</i>	30.7	20.05 65.3	15.35 50.0	25 23.24	19 17.83	4.05	1.4	4.29	14.63
<i>N.declivis</i>	25.2	17.0 67.5	13.25 52.6	21 20.94	18 17.96	2.7	1.69	4.76	16.23
<i>N.comptonii</i>	22.55	13.2 58.5	11.05 49.0	23 23.85	19 19.64	1.47	1.28	4.47	15.25
<i>N.piperita</i>	23.6	13.75 58.3	11.15 47.2	24 24.5	19 19.35	1.49	1.13	4.12	14.05
<i>Cyp oblevata</i>	22.7	17.1 75.3	11.1 48.9	11 11.2	10 10.15	3.43	2.93	7.96	27.17
<i>Cyp ventriculus</i>	55.5	36.3 64.4	26.8 48.3	19 15.05	19 15.05	36.2	2.12	6.7	22.88
<i>Cyp helvola</i>	25.1	17.25 68.7	13.1 52.2	16 16	12 12	2.95	1.87	5.2	17.75
<i>Cyp subviridis</i>	34.9	21.6 61.9	17.5 50.1	16 14.62	13 12.08	5.31	1.25	4.03	13.74

## References

- Bridges, R. & Lorenz, F. (2013) A Revised Morphometric Formula for the Characterization of Cowries. *Conchiglia*, 43(1.4): 27-40.
- Griffiths, R.J. (1959) A new species of the *Cypraea* subgenus *Notocypraea*. *Memoirs of the National Museum, Melbourne* 24: 97-101.
- Griffiths, R.J. (1962) A review of the Cypraeidae genus *Notocypraea*. *Memoirs of the National Museum, Melbourne* 25: 211-231.
- Lorenz, F. & Morrison, H. (2013) The eastern Tasmanian subspecies of *Notocypraea declivis* (G.B.Sowerby 11, 1870). *Conchiglia* 44 (1-2).

Don Cram

## A Burn family tree: mostly malacological

During the 60 and more years that I have been interested in all things molluscan, various authors have honoured me with genus and species patronyms. I too have honoured others the same way. It is not surprising therefore that, appropriately latinized, my surname and names of members of my family crop-up in all sorts of funny places. The following tongue- in-cheek story presents a malacological Burn family tree.

The oldest branch of the family is the late Miocene fossil bivalve gastropod *Berthelinia burni* Ludbrook & Steel, 1961 from the Adelaide region. A somewhat younger fossil branch persisted until the Plio-Pleistocene of Flinders Island and in the present day flourishes with living local species. Another bivalve gastropod, again living, *Julia burni* Sarma, 1975 turned up in Indian waters, but had an extraordinarily short life before being adopted into synonymy of the wide-spread Indo- Pacific *Julia exquisita* (Gould, 1862). The same fate befell *Laevilitorina burni* Ponder, 1976, a little south Western Australian gastropod that flashed across the firmament before being swallowed by the earlier *Laevilitorina johnstoni* (Cotton, 1945).

Some members of the family look as though they have made a secure place for themselves in the marine world, either in the tropics or in warm temperate waters. *Chromodoris burni* Rudman, 1982 and *Phyllidiopsis burni* Brunckhorst, 1993 love the Great Barrier Reef and the islands beyond. *Hancockia burni* Thompson, 1972 is

somewhat less venturesome, happy to stay in climes between Noosa and Sydney in the east and Adelaide and Rottnest Island in the west.

A very local branch of the family *Vicrobia burni* Ponder & Clark, 1993 loves the chilly but refreshing temperatures of streams on the south side of the Strezelecki Range in South Gippsland and minute *Calopia burni* Ponder, 1999 prefers shallow pools well up on wide sandy mud beaches where it hides behind every blade of seagrass.

Every family has a black sheep – you wonder why, where, how and what went wrong in their upbringing. *Prototrochus burni* O’Loughlin, 2007, despite its molluscan sounding genus name, is a holothuroid. Why anyone would want to live in the dark on the bottom of the sea at 1200m depth worries the rest of the family. A couple of branches of the family have moved up into management, but their responsibilities have not amounted to much. *Roburnella* Ev. Marcus, 1982 and *Burnaia* Miller, 2001 each have guardianship of a single species so far. Even siblings get a place in this family tree, sometimes unexpectedly reaching greater heights than ever anticipated. *Ilbia ilbi* Burn, 1963 may be small - after all he was a younger brother (Ian Lee Burn) – and colourful and got around a bit from Lord Howe Island to Spencer Gulf, but he has stepped-up in the world to lord it over several co-inhabitants as Ilbiidae. And there is the possibility of further promotion.

Lastly, the spice of one’s life cannot be left-out. Despite her delicacy of form and purity of colour with only a hint of make-up, *Noumea margaritae* Burn, 1966 suffered the ignominy of falling by the wayside, overtaken by that brazen hussy, a then unrecognized older sister, *Noumea haliclona* Burn, 1957). *Ercolania margaritae* Burn, 1974 has however proved to be a stayer ever since Margaret and I discovered her in great numbers on the reef platform at Point Lonsdale in 1960. *Ancula mapae* (Burn, 1961) (based on her maiden name initials) is a brown spotted yellow little gem with two pairs of horns on her head, handy to keep attackers away, even though her diet of nodding heads (kamptozoans) is rather unusual.

Subsequent generations of the family have yet to make their mark.

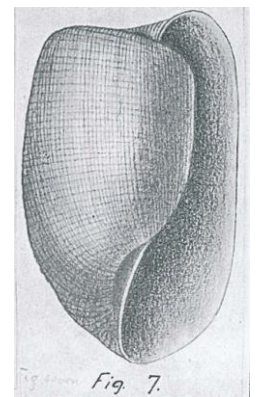
Robert Burn

### ***Notodiaphana sculpta* (Gatliff & Gabriel, 1913)**

*Notodiaphana sculpta* (Gatliff & Gabriel, 1913) is a seldom - collected bubble - shell reported only from the Victorian coast of south-eastern Australia. It is very small, less than 3mm shell length, almost cylindrical in shape and sculptured with close spiral lirae and axial growth lines. The small white animal has distinct black eyes showing dorsally and a big black digestive gland patch visible through the body whorl. The foot is short and no tail projects rearward of the shell.

The species was originally described as *Bullinella pygmaea* A.Adams var.*sculpta* (Gatliff & Gabriel, 1913) from dredging off Wilsons Promontory (original figure reproduced here). In my 2006 checklist (Burn, 2006), *sculpta* was separated from *pygmaea*, raised to species level, and tentatively assigned to *Retusa*. A very recent description (Ortea et al., 2013) of a small Caribbean and tropical Atlantic species *Notodiaphana atlantica*, indicates that placement of *sculpta* in this genus would be far more appropriate.

Shape of the extended animal, the black digestive gland and overall shell shape are almost identical in *N. sculpta* and *N. atlantica*. The shell of *N. sculpta* is more cylindrical than that of *N. atlantica*, but both appear to have spiral axial sculpture of much the same strength. The radula of *N. atlantica* is most distinctive, with a small three- pronged lateral tooth and a long rectangular marginal tooth in each row. This alone justifies placing *Notodiaphana* in its own family Notodiaphanidae Thiele, 1931. Its higher classification remains to be established.



Original figure holotype  
*Bullinella pygmaea* 1.25mm  
Drawn by Charles Gabriel

### References

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Robert Burn