

VIC. BR. BULL. NO. 300

FEBRUARY/MARCH 2020

It was just fifteen months ago that the 50th anniversary issue (VBB.294) was published. Now No.300 is another milestone that this rather unique publication has reached.

Our main aim now is to make sure that all this information that has been gathered and written up by so many people on our Victorian and related fauna is preserved in all appropriate institutions.

All issues to Bulletin 300 which have now been digitized together with an updated index and stored on disc, are available to any institution and those of genuine interest.

All VVB issues from No 1 are stored in the sectional library of the Natural History Museum ; London (NHMUK) and continually added to.

Currently Branch Bulletin issues from VBB169- 288 can be accessed via the Society's website which includes an index 1-276 . <u>http://www.malsocaus.org/?page_id=91</u>

NOTICE OF MEETING AND DATES 2020

Meetings are held at Melbourne Camera Club Building, cnr. Dorcas & Ferrars Sts South Melbourne at 8pm. on the Tuesday of the third week of the month.

Tuesday 18th February member's night

Tuesday 17th March – no meeting

Tuesday 21st April - Buy/Swap/Sell Mini shell show

Tuesday 19th May – no meeting

Tuesday 16th June – no meeting

Tuesday 21st July - no meeting

Tuesday 18th August - member's night

Tuesday 15th September – no meeting

Tuesday 20th October - member's night

Tuesday 17th November – annual general meeting

Secretary / Treasurer Michael Lyons Tel. No. 0428 600 615

Vale Jean Lamprell.

Jean Lamprell passed away peacefully on the 16th of January aged 94. Jean was the wife of the late well known Kevin Lamprell, bi-valve researcher and author who died in 2003. Jean dedicated her life to her family and to Kevin's passion for a hobby that became an internationally recognized scientific achievement.

From the humble beginnings of travelling around Australia collecting shells, they travelled extensively, visiting museums in England and Europe, examining type and rare specimens for use in Kevin's upcoming publications. At their home in Brichang they walkered prominent malagelegists from around the world and all

Brisbane they welcomed prominent malacologists from around the world and all others who shared their interest.

Amongst all this Jean was a wonderful host to all that visited their home and tirelessly supportive of Kevin's research. Kevin often said "He would not have been able to spend so much time on his chosen study if it had not been for the wonderful support of his wife Jean".

Kevin died before his *Spondylus* book was completed. With the help of friends and family the book was published in 2006 and the cropped image shown is of Jean promoting the book at the 2007 Brisbane Shell Show.

Although no longer involved with shell shows Jean kept in contact with many of the friends she had made and will be sadly missed by all of us who knew her well.

Don and Val Cram

A tribute to Kevin can be found in VBB 220:2

A possible re-identifiction

Comparison of data from field notes made at Merimbula (1987) and Mallacoota (2011) with the image (Oskars et al, 2019) of the type specimen of *Limulatys reliquus* Iredale, 1936 (now *Weinkauffia reliqua* from Sydney Harbour, indicates that my identification (Burn, 2019 is not correct. *W. reliqua* has an elongate oval shell marked with numerous white spiral bands. In this genus the head is smallish when the extended animal is crawling and the tail is broad and rounded. The shell of the Merimbula /Mallacoota species is broader and in bigger specimens somewhat angulated at mid-length, the head of the extended animal is broad and short, large parapodia extend over the anterio-lateral edges of the shell, and there is a short tapering left-side tail.

The Merimbula/Mallacoota species presently remains unidentified. It may be *Cylichna elegans* Angas, 1877, localized as Port Stephens, NSW, but not reported in the literature since the original description. If it is *C. elegans*, a very doubtful prospect, external morphology of the animal alone indicates that it must be transferred to the family Haminoeidae. Hopefully, internal features of the animal will be generically diagnostic.

Robert Burn

<u>Reference</u>

Burn, R. 2019 Name changes for Victorian sea slugs and bubble shells. *Victorian Branch Bulletin* No. 299:4-5 (and references therein).



Fig. 1. Field sketch of Merimbula Inlet, NSW, specimen, crawling length 7mm. 2 December 1987.



Fig.2. *Cylichna elgans* Angus, 1877, Port Stephens NSW 12mm shell length Copy of original figure



The Genus Australaria Snyder, Vermeij & Lyons, 2012

The genus *Australaria* (previously known as *Pleuroploca* Fischer, 1814) consists of moderately large predatory gastropods that are found from southern Queensland, down the east coast and around to southern Western Australia, including Tasmania. Shells in the genus attain a maximum length of around 190mm and are spindle shaped, with sculpture that varies, ranging from shells with whorls that are strongly nodulose at the shoulder to specimens that are fusiform in shape, with smooth, rounded whorls.

This variability has resulted in the naming of several different species; *Australaria australasia* (Perry, 1811), *Australaria bakeri* (Gatliff & Gabriel, 1912), *Australaria coronata* (Lamarck, 1822), *Australaria eucla* (Cotton, 1953) and *Australaria fusiformis* (Kiener, 1840).

In his book Australian Marine Shells, Barry Wilson treated them all as the one variable species, *A. australasia*, suggesting that use of the various synonyms as form names was optional. However, Snyder et al (2012) tentatively prefer the approach of Cotton (1953), where he divided the Australian forms into several species. Perhaps future workers can settle the matter using DNA.

Animals of the genus *Australaria* are direct developers, not having a planktonic veliger stage in their life cycle, with emerging juveniles dispersing by crawling. Shells seen whilst exploring intertidally or diving in Victoria are *Australaria australasia*.

In life, *A.australasia* shells are vested with a shining dark brown periostracum which, on larger specimens is often eroded, particularly on the earlier whorls, rendering them susceptible to colonisation by encrusting organisms. The majority of the larger shells encountered when diving and



A. australasia crawling in 13 metres of water off Rye

seen intertidally are thus afflicted. Shells obtained by dredging in deeper water seem less susceptible. Generally, smaller juveniles possess an intact periostracum and are characterised by a white protoconch.

The animal of *Australaria australasia* is bright crimson in colour, which, when retracted into the shell, is protected by a thick, black corneous operculum. The animals are active both day and night and can be observed out in the open by following the broad, flattened trails they leave when crawling over sand.

A. australasia is a predator of other molluscs; prey items are actively pursued, with the hunter following and gradually overtaking its victim. When caught, the prey item is immobilised and smothered within the Australaria's foot, then consumed. Species I have observed being eaten include Cabestana spengleri, Penion mandarinus, Thais orbita, Phasianella australis, Fusinus undulata, Bulla quoyi, Ninella

A. australasia consuming Penion mandarinus

undulata and *Bellastrea squamifera*. More rarely, bivalves such as *Fulvia tenuicostatum* are taken. I have found examples of multiple *Australarias* feeding on the one victim. In one instance, I observed three individual animals feeding on the one large *Cabestana spengleri*.

Sometimes, numerous hermit crabs, particularly *Paguristes frontalis*, aggregate in the immediate vicinity of feeding events, possibly attracted by some sort of chemical signature given off during the feeding process. When witnessing this phenomenon, I could not ascertain whether the crabs are attempting to scavenge food or whether they are jostling for position to be first in line to gain possession of the victim's shell (or both)! Prey items are also obtained from beneath the substrate by way of a proboscis.

Prey items are also obtained from beneath the substrate by way of a proboscis. During a night dive off Portsea in around 12 metres of water I disturbed a large (~140mm) example, which, when lifted from its position on the sand, had a white-coloured proboscis, around 60mm in length and 5mm in diameter, extending from its anterior and reaching down beneath the sand. Unfortunately, it was not possible to ascertain what it was feeding on.

3.

Mating occurs in late winter/early spring. During a night dive west of Portsea pier in late September 2011, I observed eight specimens converging and intertwining in what may have been a breeding aggregation, centering around a long dead *Cabestana spengleri* shell.

Their peculiar bell-shaped eggs can be found attached to the sides of rock or rubble during spring. A detailed description of the eggs can be found in the book Marine Molluscs of Victoria. In recent years a new species, *Australaria tenuitesta*, from southern Queensland was named by Snyder, Vermeij & Lyons (no relation).

I have numerous examples of *Australaria* in my collection; with specimens obtained principally from Victoria, with one from South East Tasmania and one from Eastern South Australia.



A.australasia 128mm. Trawled east of Wilsons Promontory; **B**) *A. bakeri* 112mm. (weakly nodulose form) "Bass Strait";**C**) *A. australasia* 128mm. Trawled east of Wilsons Promontory; **D**) *A. bakeri* 111mm. (strongly nodulose form) Trawled east of Wilsons Promontory; **E**) *A. australasia* 112mm. (typical shallow water form with periostracum removed) Portsea; **F**) *A. fusiformis* 58mm. Dived 25 metres off Cape Raoul, Tasmania; **G**) *A. australasia* 153mm. Shallow water form with intact periostracum, Nora Creina South Australia.

References:

Macpherson, J.H. & Gabriel, C.J., 1962. Marine Molluscs of Victoria

MolluscaBase (2019). MolluscaBase. *Australaria* Snyder, Vermeij & Lyons, 2012. Accessed through: World Register of Marine Species at: http://www.marinespecies.org/aphia.php?p=taxdetails&id=607872 on 2019-12-13

Snyder M.A., Vermeij G.J. & Lyons W.G. (2012) The genera and biogeography of Fasciolariinae (Gastropoda, Neogastropoda, Fasciolariidae). Basteria 76(1-3): 31-70. [3 Aug. 2012] Wilson, B.R. 1994. Australian Marine Shells, Part 2. Odyssey Publications, Kallaroo, WA.

Michael Lyons

4.

Preliminary notes on an unusual *Gabrielona* Iredale, 1917 from the tropical Indo-West Pacific region.

Over a decade ago during work on the micro-molluscan genus *Gabrielona* Iredale, 1917 in Australia, we had the opportunity to examine many lots housed in the Australian Museum as well as the Western Australian Museum. Whilst our original study (Vafiadis and Cram, 2008) focused on *Gabrielona nepeanensis* (Gatliff & Gabriel, 1908) and compared it to *Gabrielona pisinna* Robertson, 1973, a few unusual tropical specimens were encountered amongst the examined material which may represent an undescribed species. This brief report is a preliminary step to our ongoing work on it.

These specimens are uncommon and have been collected from algae or algal films on coral reefs from eastern and western Australia and the Philippines, at intertidal and subtidal depths. They are distinctive in pigment patterning, lacking (or at best having only minor vestiges of) the consistent subsutural white band with its periodic expansions that is typical of *G. pisinna* (see Vafiadis and Cram, 2008). Larger specimens are also taller and rounder compared to typical *G. pisinna*. The photographs below show dorsal views of one such specimen together with eight typical specimens of *G. pisinna*, as well as an apertural view of this specimen together with one of the *G. pisinna* shells. All of these shells were collected together, subtidally, from the Great Barrier Reef in Queensland.



As an indication of scale, *G. pisinna* grows to a maximum of 1.3 mm in length.

We are continuing our work on this and hope to report on it again in the near future.



Reference:

Vafiadis P, Cram D (2008). The external morphology, radula and distribution of *Gabrielona nepeanensis* (Gatliff & Gabriel, 1908) (Vetigastropoda: Phasianellidae, Gabrieloninae), with comparative data on *Gabrielona pisinna* Robertson, 1973. *Molluscan Research* 28 (3): 179-194.

Platon Vafiadis and Don Cram

An Uncommon Intertidal Chiton – Leptochiton liratus (H.Adams & Angas, 1864)

On a recent excursion to Flat Rocks, near Inverloch, a small, unusual chiton was located under a rock at low tide level. It was later identified as *Leptochiton liratus* (H.Adams & Angas, 1864). The only other specimen that we have recorded in the Inverloch-Bunurong area, was at Harmers Haven on 30/03/2012. The Field Naturalists Club of Victoria, Marine Research Group, recorded a specimen from Cape Paterson on 12/03/2008. MacPherson and Gabriel, gives Victorian locations ranging from Westernport west to Portland.

The Atlas of Living Australia (ALA) has 12 occurrence records with 6 lots from WA, 3 lots from SA, 1 from Tasmania, 1 from NSW and 1 observation from iNaturalist which appears to be a misidentification (*Ischnochiton cariosus*). The record from NSW, C.365173 is shown as being dredged in Watson's Bay by Brazier in 1900 and identified by T. Cochran in 1985. It should be noted that although information is still available through the ALA website, the Ocean Biogeographic Information System (OBISAUS) states that no information has been added for 2 years with no dates to clarify the 2 years. The search function does not work from the Australian website. When the ALA site was revisited, (1/02/2020) a further record from iNaturalist had been added.

The international OBIS website was accessed. This listing for *L. liratus* gives 61 occurrences of which 49 were from Museums Victoria. *L. liratus* grows to around 10mm. It is a light ochre to apricot colour with some irregular white spots and splashes along the jugum. Diagonally across the lateral area, there is a row of small pale orange spots. The head valve has radiating rows of granules, as does the tail valve. The median valves have rows of granules arranged longitudinally. The rows of granules on the triangular, lateral area are more tightly arranged than those on the jugum and pleural area. The girdle is narrow with small scales and a spiculose, marginal fringe.

While researching for this article, an interesting little conundrum was revealed. On the ALA website, there is a photograph of *L. liratus* C.10410 in the Australian Museum which is clearly stated in the record under "Type Status" to be the "Neotype". This has been included on the image. Kaas & Van Belle, state that the neotype is "SAMA D 13735", in the South Australian Museum. Both specimens have the collection data as Spencer Gulf, Hardwicke Bay, South Australia. C.10410 was identified in 1985, while Kaas and Van Belle was also published in 1985.



In situ, Flat Rocks, Vic. 21/01/2020. Under the microscope. (It moved!) <u>References.</u>

Altoff, L., Falconer, A., Burn, R., 2011 *Guide to Victoria's Chitons*. Privately published. MacPherson J.H. & Gabriel, C.J., 1962 *Marine Molluscs of Victoria*. Melbourne University Press. Melbourne.

Kaas, P., Van Belle, R., 1985 A Monograph of the Living Chitons, Vol 1. 1985. Brill/Backhuys, leiden. Websites.

Atlas of Living Australia. <u>http://www.ala.org.au/</u> accessed 01/02/2020

OBIS. Ocean Biogeographic Information System. http://www.obis.org accessed 01/02/2020.

Pygmipanda kershawi (Brazier, 1872)

In December 2018 during a quick trip through the Snowy Mountains and East Gippsland with my daughter Alexandra, I had hoped to visit the Errinundra Plateau. Fortunately there had been heavy rain in the area and access looked difficult, so this idea was dropped and a backup plan made to visit Fairy Dell, near Bruthen. I was keen on visiting this area as I had heard that *Pygmipanda kershawi* (Brazier, 1872) was present here. A previous trip had been unsuccessful. Fairy Dell comprises a walk along a narrow rainforest gully surrounded by drier forest.

We arrived in the early afternoon, which is not normally an auspicious time for finding land snails out and about, but there had been rain and the forest floor remained fairly damp. About 300 metres along the walk I began to instruct Alex to look out for landsnails, just as she looked at me and said "don't move". Sure enough I had missed and nearly stepped on a 50mm specimen out and about on thick leaf litter under a dense rainforest canopy.

Just to prove that it is always the Novice that has the luck, we found 6 live specimens (I found one) in about 15minutes of searching. There was plenty of suitable habitat and the numbers would suggest the likelihood of a healthy population. However, the status of this area following the recent severe bushfires, which did impact on the Bruthen area, is in doubt. If anyone visits Fairy Dell in future, keep an eye out please.



Pygmipanda kershawi has often been erroneously synonymised with *Pygmipanda atomata* (Gray, 1834) which has a more northerly range in New South Wales and is generally narrower shelled. *Pygmipanda kershawi* has a wide range in eastern Victoria and occassionally into southern New South Wales and is the largest native land shell in Victoria.

I have only ever seen live specimens in rainforest habitat, however fragments are not uncommon in drier forest north of Bairnsdale and I understand it also occurs in semi alpine habitat. Live snails are very impressive to see, but also quite well camoflaged especially in low light.

Geoff Macaulay

Nullarbor Snails

The publication of "*Australian Land Snails* Vol.2, a field guide to southern, central and western species" by Stanisic et al., has been very helpful to those of us who have had trouble in identifying specimens found in the areas covered in the book. The practice of giving precise distribution data and key localities in both volumes 1 and 2, has in my case found some specimens that were previously undescribed and also corrected some misidentifications.

During caravan trips across the Nullarbor in October/November 2000 and 2003, specimens of several species of *Bothriembryon* were collected at various locations as well as some other interesting species. At a Great Australian Bight viewing area, 27 kms east of Border Village South Australia, the ground was littered with dead specimens I identified as *Bothriembryon barretti* Iredale, 1930 and *Sinumelon nullarboricum* (Tate, 1879). Live specimens of both species were found aestivating around the roots of low coastal scrub. Similar specimens of *Bothriembryon* found at Madura Pass about 210 kms further west were also identified as *B.barretti*.

Iredale described *Bothriembryon barretti indictus* and *Bothriembryon distinctus* in 1939 and both these were considered synonyms of Bothriembryon *barretti* by B. J. Smith 1992 in his Non-Marine Mollusca *Zoological Catalogue of Australia.* In this work the authors have accepted all as distinct species and have detailed the morphological and geographical reasons for their decisions.

The specimens collected at Madura Pass lookout can now be identified as *B.barretti*, being more ovate in shape and the strong sculpture on the upper half of the whorls, whereas the Border Village specimens, now *B.indictus*, "differ from the similar *B.barretti* (which overlaps in range) by the narrower, more elongate and smoother shell that lacks the distinct sculpture on upper half of final whorl". *B.indictus* ranges from about Ceduna to Euclia whereas *B.barretti* ranges from about the Yalta Roadhouse Eyre Highway SA to Madura Pass Eyre Highway WA.



Bothriembryon indictus : Live collected specimensTop right: close up of radular teethLower right : epiphigrams of these specimens are thin and calcareous.



Bothriembryon barretti showing a more ovate shell and close up of the strong sculpture on the upper part of the body whorl. Collected specimens of both species averaged around 30mm in length for *B.barretti* and 34mm for *B.indictus*.

Bothriembryontidae Bothriembryon barretti Iredale, 1930 Collected at Madura Pass Lookout ,Madura WA on 23/10/2003 by D& V Cram ALS Vol.(2) No.77

Border Village SA on 31/10/2000

by D&V Cram ALS Vol.(2) No.89

Live specimens of *Bothriembryon esperantia* Iredale, 1939 were found crawling on low bushes after rain at Rotary Lookout Esperance. A few live and dead specimens of *Bothriembryon mastersi* (Cox, 1867) were collected at Theakstone Crevasse, Whalers Way Port Lincoln.

All species of *Bothriembryon* in this book are listed under the family Bothriembryontidae Iredale 1937, previously Bulimulidae Tryon 1867.



Bothriembryon mastersi (Cox, 1867) Theakstone Crevasse, Whalers Way, Port Lincoln SA Coll. 6/11/2000) by D&V Cram L= 15-17mm



Camaenidae *Pleuroxia oligopleura* (Tate, 1894) Live collected aestivating around roots of low bushes at Madura Pass Lookout, Madura WA on 23/10/2003 by D &V Cram ALS Vol. (2) No.315



Bothriembryon esperantia (Iredale, 1939) Alive after rain crawling on low bushes at Rotary Lookout Esperance WA. Coll. 29/9/2003 by D&V Cram. L=23mm



Camaenidae *Pleuroxia polypleura* (Tate, 1899) Live collected under dumped rubbish behind Cocklebiddy Road House WA on 23/10/2003 by D &V Cram ALS Vol. (2) No.314



Pleuroxia polypleura is easily distinguished from *Pleuroxia oligopleura* by its much finer sculpture.

Specimens of both species vary around 16mm



The authors of both volumes 1&2 have completed a monumental task in presenting in an understandable way the vast number of species that many people did not know existed. Due to extensive land clearing and most recently the devastating bushfires that have affected our country, it is now more important than ever to understand what we have and want them to continue to exist.

All photos except live images of *B.indictus*, radula and epiphigram taken by Platon Vafiadis References

Smith, B.J. (1992). Non-Marine Mollusca.*in* Houston, W.W.K.(ed.) *Zoological Catalogue of Australia*. *Vol.* 8. Australian Government Publishing Service: Canberra xii 405pp.

Stanisic.J., Shea,M., Potter,D.,& Griffiths,O. 2017. Australian Land Snails Volume 2. A field guide to southern, central and western species. Bioculture Press:Mauritius.



Sinumelon nullarboricum (Tate, 1979)

Don Cram