

The Bulletin of The Malacological Society of London

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### BOOK REVIEWS

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### **EDITORIAL**

Please see page 20 for the details for this year's Malacological Society of London Molluscan Forum on **Thursday 17<sup>th</sup> No-vember 2022**. The event will take place in the Flett lecture theatre (Natural History Museum, London). In-person talks (most likely using Zoom or Teams), will be broadcast and there will be two virtual sessions (with limited spaces) for people who are unable to attend in person to present their talk. If the COVID situation within the UK deteriorates prior to the Forum, or the Natural History Museum decides that it is not possible to accommodate external attendees, a decision will be made at the earliest possible opportunity to move the whole Forum to a virtual format as we did last year. If you plan to attend in person we recommend you use refundable/transferable options where possible in case the Forum moves online only. Poster sessions are back this year (replacing quick-fire talks of recent Forums) but will only be available for in-person presenters. The deadline for registrations and talk applications is **Friday the 1st of October** and presenters will be informed of successful applications soon after. Attendance is **free!** 

This issue also contains a Senior Research Grant report by Abraham Breure entitled *Towards an annotated and illustrated checklist of Peruvian land snails: a visit to Berlin.* The Council of the MalacSoc are always pleased when research grant reports appear in *The Malacologist; it* helps us feel our efforts have not been in vain! I particularly draw attention to the Award report (from the AGM) by Dr Lauren Sumner Rooney on page 12, which shows the care the Society applies to the awarding process. Issue 78 also includes reviews of three books, *A Guide to Land Snails of Australia* by Stanisic, J., Potter, D. & Stanisic, J., *The Sound Of The Sea by* Cynthia Barnett and *Interesting Shells by* Andreia Salvador. *The Malacologist* is the medium by which the annual performance of the Malacsoc is made public via the President's report of Council (see page 8) This issue also includes bstracts of the conference which traditionally accompanies the AGM; this year the conference was on *Molluscan Tropical Biodiversity*.

### TAXONOMIC/NOMENCLATURAL DISCLAIMER

This publication is not deemed to be valid for taxonomic/nomenclatural purposes [see Article 8b in the International Code of Zoological Nomenclature 3<sup>rd</sup> Edition (1985), edited by W.D. Ride *et al.*].

Editor - Georges Dussart Emeritus Professor, Canterbury Christ Church University georges.dussart@canterbury.ac.uk

NOTICES

### Trial changes to the Travel Awards of the Malacological Society of London

For the year 2022-2023, the Society will trial two updates to the current travel award scheme.

First, to better align with the academic seasons, the application deadlines will be shifted to **1st March** for travel starting between 1st June and 30th November of the current year, and **1st September** for travel starting between 1st December of the current year and 31st May of the following year. You must apply to the correct round of awards.

Second, in order to alleviate financial stress on award recipients, the Society will trial making award payments upfront, instead of following travel. Recipients will be asked to provide contact details for their academic supervisor, and to confirm that, if travel does not take place, that they will return their award in full.

For further information, see page 23 in this issue of *The Malacologist*. If you have any feedback on these changes, please contact the Awards Secretary at <u>MSL awards@nhm.ac.uk</u>.

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### Ingenious but.....

This ball of shells is an ingenious piece of work. It was seen in a Bed and Breakast hotel in the UK.

How many of these and similar shelly pieces are there in the world? Can our molluscan communities really sustain this kind of routine harvesting. On the other hand, people can derive an income from making and selling such things, but is it sustainable?





## Bridging the gap

An example of why molluscs are malacological can be seen in this video

(Malacology derives from Ancient Greek  $\mu\alpha\lambda\alpha\kappa\delta\varsigma$  (malakós) 'soft', and  $-\lambda o\gamma i\alpha$  ( -logía = knowledge)

https://fb.watch/d IYhKmakX/



# A sinister error

From Martin Willing

"My attention was drawn to a feature on p. 4 of issue 78 (of *The Malacologist*) on *Vertigo moulinsiana* making itself useful with regard to a new road scheme. I was involved (working for Friends of the Earth) in the Newbury Bypass 'battles' in the 1990s when this snail gained infamy as 'the Newbury Bypass Snail'. I think that there may be a slip re. the figured snail on p. 4 ... it is shown as a sinistral snail whereas (unless it was a freak!) it should be dextral. "

This may have been a mistake in production of the newspaper article from which this piece came. The mirror image of the original photo may have got into print. Thanks to Martin for setting us straight. (Ed.)

## The Annual Award of the Malacological Society of London

This year, the award was granted to Franziska Bergmeier of Ludwig-Maximilians Universitat, Munich for her thesis on Solenogastres. The panel felt that the extent and quality of the work in the thesis *From shallow sands to deep-sea trenches: Towards integrative systematics of Solenogastres* (Aplacophora, Mollusca)' was exceptional, and made a substantial contribution to our knowledge of these somewhat enigmatic creatures.

## **Conservation of molluscs**

If you are into freshwater conservation, you may wish to check out this new report: <u>Fantastic Freshwater</u>: <u>50 landmark species for conservation | IUCN</u>. It includes 5 species nominated by the IUCN SSC Mollusc Specialist Group. These include the Colombian freshwater oyster, the Elegant adriatic freshwater mussel, the Naegele spring snail, the Bakara Sulawesi elephant snail, and the Wicker limpet.

The full report is available at <u>Fantastic-freshwater-v14-1.pdf (shoalconservation.org)</u>

Diarmaid Ó Foighil University of Michigan (first broadcast on Molluscanet)

## An Age-old Mystery Solved

Dr Greg Herbert (University of South Florida, Tampa) and collaborators published a much-awaited peer-reviewed article on the lifespan of the Horse Conch, *Triplofusus giganteus*. They also estimated the age at which females of the species produce their first spawn. In their study, the authors used stable oxygen and carbon isotopes sclerochronology (the dating of hard biological structures such as bones, corals, and shells) to gather information on life cycles. Among other samples, included in their study were two large Horse Conchs from the National Shell Museum collection, measuring 460 and 475mm

PLoS 1 2022 Apr 6;17(4):e0265095 doi: 10.1371/journal.pone.0265095. eCollection 2022.

(This was a news item from the Bailey Matthews Shell Museum - https://www.shellmuseum.org)

## Freshwater Gastropods of North America Project-expansion

We are pleased to announce the expansion of the *Freshwater Gastropods of North America* project through the entirety of the Tennessee and Cumberland River drainage systems, increasing the coverage of our FWGTN web resource from approximately 22,000 square miles (767 sites) to over 58,000 (1,700 sites). We document 54 species of freshwater gastropods with 16 subspecies in this malacologically rich region, offering ecological and systematic notes for each, as well as detailed distributional maps, a dichotomous key and a photo gallery. This expanded web resource, authored by R.T. Dillon, M. Kohl and R.E. Winters, is available here: https://www.fwgna.org/FWGTN/

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Our complete FWGNA database, covering drainages of the Ohio as well as Atlantic drainages from Georgia to the New York line, now contains 22,044 records documenting 107 species of freshwater gastropods, with 21 subspecies. We have updated our overall website with a new continental-scale biogeographic analysis, dividing these records into North Atlantic, South Atlantic, Ohio, and Tennessee/Cumberland. **Our analysis suggests that natural selection has been more important in the evolution of freshwater pulmonates than gene flow restriction, but that gene flow restriction has been more important in the evolution of freshwater prosobranchs than natural selection.** 

We also announce today the publication of an updated "Synthesis v3.1," ordering our 107 species by their incidence in our continental database and assigning fresh FWGNA incidence ranks to all.

Dr. Robert T. Dillon, Jr. http://www.fwgna.org/dillonr/ DillonR@fwgna.org



### Parasites in the invasive snail Cipangopaludina chinensis

"Clarkson University graduate student Nimanthi Abeyrathna, who is pursuing her doctoral degree in the Biology Department's Interdisciplinary Bioscience and Biotechnology (IBB) program, was recently awarded an Early Career Research Award from the <u>Malacological Society of London (MSL</u>), a molluscan research society based in the United Kingdom. Her proposal entitled '*Genetic characterization of parasites in the invasive snail Cipangopaludina chinensis in the US*' seeks to document the parasitic fauna of an exotic snail for the first time in its North American invasive range using DNA barcoding techniques. The project is a small part of her larger dissertation which aims to understand the invasion dynamics of exotic aquatic snails in the New York Great Lakes Basin.



The MSL's Early Career Research Grants are conferred on students and researchers without regard to nationality and are assessed on scientific merit, value of the project and the extent to which the research will benefit the applicant's scientific aspirations. Once completed, the study is featured in the society's newsletter *The Malacologist* and researchers are encouraged to present their results at the annual Molluscan Forum held in the United Kingdom.

Nimanthi is a graduate student in Professor Andrew Davinack's Lab and a Teaching Assistant for both Introductory Biology and Anatomy and Physiology labs in the Biology Department.

To learn more about Clarkson University, go to www.clarkson.edu."

## **Octopus carving**

Octopus carved with chain saws (and other tools) from a Giant Redwood stump.

Artist - Jeffrey Michael Samudosky

From illuzone.net





# **Senior Research Grant Reports**

Research financially supported by the Malacological Society of London

## Towards an annotated and illustrated checklist of Peruvian land snails: a visit to Berlin

## Abraham S.H. Breure<sup>1,2,3</sup>

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Faunal lists for countries are a great help for taxonomists and conservation assessments. For molluscs, they are available for many countries. For the Neotropical realm however, they are only partially present and up-to-date (e.g., Simone, 2006; Massemin et al., 2009; Thompson, 2011; Linares & Vera, 2012). We recently published the first illustrated checklist for the non-marine molluscs of mainland Ecuador (Breure et al., 2022), which gives the original publication, type locality, distributional data derived from literature and several museums plotted on maps of ecoregions, plus photographs of type specimens (if located) or original figures (if published). This overview lists all the 331 species known of land and freshwater snails, of which 179 are considered as endemic. For 60 species, only imprecise localities are known, while for 169 species, no modern (i.e. last 50 years) records exist. This shows that such overviews can, for a country, shine a spotlight on our current knowledge (or the lack thereof) and therefore form a baseline for further research.

Similar to Ecuador, Peru is an equally biodiverse country for which only a list of molluscan taxonomic names is available, without underlying data (Ramirez et al., 2003). The list contains names of 763 land snails and 129 freshwater snails. To keep the objective of assembling an illustrated and annotated checklist in manageable portions, we decided to split it into several parts. A first paper has already been published (Breure & Mogollón Avila, 2016) dealing partially with the dominant group within the country, the superfamily Orthalicoidea. Working on this paper and on the Ecuador project, we found that GBIF data are incomplete and contain many misidentifications. The reason

why we try to visit museum collections personally or ask collection managers for photographs of suspected misidentifications is to guarantee a reasonable data quality as the basis for our work. The Museum für Naturkunde in Berlin (ZMB) was one of our targets because it contains a relatively large amount of type material.

The visit, for which the Malacological Society of London (MSL) kindly awarded me a Senior Research Grant, was originally planned for December 2021, but had to be postponed to June 2022 due to pandemic restrictions. The Mollusca collection is stored in wooden cabinets (Fig. 1), arranged according to families. Working my way through the cabinets I took snapshots of all relevant lots of land snails from Peru (and also Ecuador), including both type material and non-type material. In this way I found type material of 30 Peruvian taxa and took 375 photos of non-type specimens. Working in such a historical collection, one should always be aware that it is possible to encounter specimens that could be considered as type-material, especially when, like in Berlin, provenance data are often complete. After checking the original publications, I found 25 lots with unrecognised type-material belonging to different families. Interestingly, contacts between 19th century malacologists were also discovered, e.g. Johann Christian Albers was in contact with Sauveur Petit de la Saussaye (Fig. 2) and Jacques Moricand (Fig. 3).

These results will be used in forthcoming publications on Peruvian mollusks Figure 1 Cabinets in the ZMB Mollusca collection. (and also in additions to the Ecuadorian checklist). We would like to thank the Awards Committee for the Senior Research Grant that made this visit possible. Finally we thank Thomas von Rintelen and Christine Zorn (ZMB) for their hospitality and support.



### Number 79 (August 2022)

### >CONTINUED



Figure 2. *Isomeria juno* (L. Pfeiffer, 1850), with the original label in Petit's handwriting at the top; the label in red ink is characteristic of the Albers collection.

Bu	limus serralus Pf. 428, mejobambensis Morie	A	
	Jac. Moricand.		
•	Zoolog. Museum Berlin.	9	
	Drymaeus serradus Pyr.		
	Mojobarnba N. Peu Albers		

Figure 3. Drymaeus serratus (L. Pfeiffer, 1855), with the Albers label showing that the provenance goes back to J. Moricand.

### References

Breure, A.S.H. & Mogollón Avila V. (2016) Synopsis of Central Andean Orthalicoid land snails (Gastropoda, Stylommatophora), excluding Bulimulidae. *ZooKeys*, **588** 1-199.

Breure, A.S.H., Roosen, M.T. & Ablett, J.D. (2022) Land and freshwater molluscs of mainland Ecuador: an illustrated checklist. *Iberus*, **40**(1) 1-290.

Linares, E.L. & Vera, M.L. (2012) Catálogo de los moluscos continentales de Colombia. Bogota: Instituto de Ciencias Naturales, Universidad Nacional de Colombia.

Massemin, D., Lamy, D., Pointier, J.-P. & Gargominy, O. (2009) *Coquillages et escargots de Guyane. Seashells and snails from French Guiana.* Mèze: Biotope / Paris: Muséum national d'Histoire naturelle.

Simone, L.R.L. (2006) Land and freshwaterl molluscs of Brazil. Sao Paulo: EGB/Fapesp.

Ramirez, R., Paredes, C. & Arenas, J. (2003) Moluscos del Perú.. Revista Biologia Tropicals, 51 Supplemento 3 225-284.

Thompson, F.G. (2011) An annotated checklist and bibliography of the land and freshwater snails of Mexico and Central America. *Bulletin Florida Museum of Natural History*, **50** 1–299.

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## A snail with iron armour

The fearsome-looking scaly-foot snail developed its armour to excrete sulphur in the depths of the ocean. They only live at three tiny sites. Photograph: Dr Chong Chen/IUCN



# Annual report of Council for 2020-2021

## delivered by the President, Jon Ablett at a virtual Annual General Meeting on March 16th 2022

### Membership (report from Membership Secretary Harriet Wood)

When taking over the membership secretary post in April 2021 there was some disparity between the number of paying members and a larger number listed with OUP receiving JMS access. An up-to-date members list was therefore brought together as a priority and we have worked closely with OUP to make sure that our lists are in alignment.

From January to December 2021 there were 89 members, including 30 students. A number of these members were offered free membership for the year due to journal access issues during the period in which they had previously paid. For 2022, we currently stand at 64 members: 11 of which are students, 8 of which are new to the Society and 7 of which are lapsed returning members. This is noticeably lower than in previous years and this may be partly to do with the cancellation of the printed journal in January 2021.

We have been working with OUP to solve historic issues with *JMS* web access and missing printed journal back issues. OUP have provided a direct point of contact for the web access problems and they have been responsive in sorting these out for the members who have contacted them. Those members with missing JMS printed issues, that we are aware of, were contacted and we are arranging to print those that we can for them.

We are also working with our web developer, and OUP to set up 'member level referral access' between the MSL and OUP websites, which will reduce the need for OUP to hold members personal information. Also, to streamline the process for new members we have removed the downloadable application form from the website and ask that new members only use the online application form, whilst renewing members must log into their account before making a new payment.

Generally, we hope that members have seen improved communication over the past months, as we greatly value the support that you give to the Society.

### Finance for the financial year ending 31st December 2021 (report from Honorary Treasurer Katrin Linse)

The finances of the Malacological Society have been pleasing during 2021 with an overall gain of £73,319. This gain is explained by a gain in the Investment fund and lower awards and meeting expenditure.

Investments had an overall gain of £41,202 (comparing market value at 31 December 2021 with market value at 31 December 2020), with the COIF Investment Fund making a gain of £49,015 and the COIF Fixed Interest Fund a loss of £7,814. During 2021, no funds were transferred from the current account to savings accounts. Separately, the profit-share from the publication of the *Journal of Molluscan Studies* in 2021 provided the Society with most of its income contributing £48,035. The Editor of the Journal, Dr Dinarzarde Raheem, and the Assistant Editors are to be commended for their hard work contributing to the publication of our scientific journal. In addition, sales of the digital archives provided £2,454 of income. In 2021, a little more funds were used for research awards, being £13,948 in 2021 compared with £12,262 in 2020, while travel awards significantly dropped (pandemic related). There was reduced spending on Council meetings and Forum travel awards however, as meetings were held virtually.

The Society (MSL) spent less money in 2021 compared with 2020. This reduction however, was mainly based on there being less expenditure on meetings and to a reduction in the cost of colour plates once *JMS* moved to online-only.

### Meetings

### The AGM (report from President Jonathan Ablet)

The 129<sup>th</sup> AGM was held as a virtual meeting *via* Zoom, on the 16<sup>th</sup> March 2022. To coincide with the AGM a symposium was held on the theme of 'Tropical Molluscan Diversity'. We had 5 invited speakers:

Dr Nur Leena Wong W.S., International Institute of Aquaculture & Aquatic Sciences. Malaysia.

- 'Eating an undescribed species for 160 years the problem with tropical cryptic species' Dr Liew Thor Seng, Universiti Malaysia Sabah, Malaysia.
- 'Past, present and future challenges in tropical land snail diversity research in Malaysia' Dr Rebecca J. Rundell, State University of New York. USA.

'Conservation and evolution of land snails in the lowland tropical rainforests of Belau'

Dr Vanessa Knutson, Department of Organismic and Evolutionary Biology, Harvard University. USA.

'Many species, but few names: phylogenetics and species delimitation of the nudibranch genus Gymnodoris' Dr Christine Parent, University of Idaho. USA.

'Drivers and constraints of diversification in Galápagos endemic land snails'

Over 90 people registered from at least 20 countries, and I would like to thank John Grahame and Phil Hollyman for all their help on the day and in preparing the symposium.

### The Molluscan Forum (report from Vice President Phil Hollyman)

The annual Molluscan Forum was held on the 18th of November 2021. For the second time this meeting was hosted virtually via Zoom. An attempt was made to organise this meeting in a hybrid format, but due to the low uptake of in-person attendees, a decision was made to change the meeting to fully virtual. Over 150 people registered in advance for the event. As in 2020, the shift to a virtual platform had a clear impact on accessibility for international delegates, improving the ability of many people to attend and present.

This year also saw the continued use of quick-fire talks in place of poster sessions, giving each speaker five minutes and two slides to present their findings. Overall, there were 42 applications for full and quick-fire talks, which were presented during three full and three quick fire sessions throughout the day. The Oxford prize, awarded annually for the best early career talk, was given to Alison Irwin (The Natural History Museum of London/University of Bristol) for her talk titled: '*Function and Evolution of High-Resolution Spatial Vision within Stromboidea*'.

### **Publications**

### The Journal of Molluscan Studies (report from Editor Dinarzarde Raheem)

The ISI impact factor for the Journal in 2020 increased to 1.348 (compared with 1.461 in 2019, 1.345 in 2018, 1.483 in 2017 and 1.250 in 2016). The Journal stands at number 98 in the ISI list of 125 zoological journals (it was 63 out of 168 in the previous year). The Journal continues to be truly international in terms of the geographical distribution of its authors; for volume 86 (2020) the corresponding authors represented 19 countries (of which the leaders were 26% USA and 16% Germany). The average publication time from receipt to Advance Access publication was 10.1 weeks for 2020.

Circulation for the Journal in 2021 was 29 institutional and 85 membership subscriptions (compared with 32 and 152 respectively for 2020). In addition, a further 2,610 institutions have electronic access to the Journal through publishers' collections (includes migrated figures; compared with 2,530 in 2020) and 37 have access through OUP's Developing Countries Offer (for details see http://www.oxfordjournals.org/access\_purchase/developing\_countries.html).

The new pricing structure has been fixed for 2022. The cost for an online-only subscription is  $\pounds 569.00/\$1082.00/\$284.00$  for institutional subscriptions and  $\pounds 711.00/\$1350.00/\$1066.00$  for corporate subscriptions. Please see https://academic.oup.com/mollus/subscribe for more information.

Volume 87 (2021) contained 52 papers, research notes and review articles. In total, 122 manuscripts were submitted in 2021 (a decrease of 9.6% on the 127 in 2020) and the acceptance rate was 43%. The image of the giant clam *Tridacna squamosa* on the cover of Volume 88 was kindly donated by Alex Mustard.

Our board of Associate Editors now comprises: Coenraad Adema (immunology, genomics, parasitology), Thierry Backeljau (molecular phylogenetics and genetics), Liz Boulding (population and reproductive biology), Robert Cameron (ecology and genetics of terrestrial gastropods), Richard Cook (agricultural malacology, physiology, feeding behaviour), Simon Cragg (life histories, sense organs), Mark Davies (marine ecology and behaviour), Dan Graf (freshwater bivalves), John Grahame (population genetics, morphometrics), Liz Harper (marine bivalves), Gerhard Haszprunar (microanatomy, 3D reconstruction, minor molluscan classes), Bernhard Hausdorf (terrestrial gastropods), Michal Horsák (ecology and biogeography of terrestrial gastropods), Yasunori Kano (systematics of vetigastropods, tropical ecology), Joris Koene (reproductive behaviour of gastropods), Nicole Limondin-Lozouet (palaeoecology), Manuel Malaquias (opisthobranchs), Peter Marko (marine biogeography and phylogenetics), Pablo Martín (freshwater ecology, life history), Ellinor Michel (ecology, freshwater gastropods), Jeff Nekola (community ecology of terrestrial gastropods), Nicolas Puillandre (neogastropods), Ellen Strong (freshwater and marine caenogastropods), Janet Voight (cephalopods), Janice Voltzow (microscopic anatomy), Heike Wägele (opisthobranch biology), Tony Walker (biochemistry, immunology, cytology), Suzanne Williams (molecular phylogenetics and genetics) and Yoichi Yusa (general ecology and behaviour). Nerida Wilson has temporarily stepped down from the editorial board.

I would like to thank all the members of the editorial board and those members of the international malacological community who have contributed to the review process. At Oxford University Press, I would like to thank Cailin Deery, Jude Roberts and Oluwatooni Akinkuotu (Publishers); Gemma Cannon (Senior Publisher); Joe Matthews, Katie Kent and Yasmin Bahar (Journal Managers); Jennifer Paxton-Boyd and Matt Pacey (Publishing Directors for Science); and Matt Senderling (Marketing Coordinator). My thanks also to Akash Mahajan, Shreya Shukla and their production team at Aptara Incorporated) for their work on behalf of the Journal.

### The Malacologist (report from Editor Georges Dussart)

At 56 pages, the August 2021 issue (Number 77) was an unusually large issue and included the usual mixture of research grant reports, travel grant reports, minutes and abstracts of the AGM and its accompanying conference, and unfortunately, obituaries.

As usual, the August issue (published on time) included abstracts from the covid-constrained, virtual conference on Molluscs in Extreme Environments which had accompanied our AGM in Spring 2021. This issue also included an invited article entitled *Marine shells: the beauty and the resilience* by Alessia Carini of the Swire Institute of Marine Science at the University of Hong Kong. It is encouraging to the Society's efforts to be able to present several Early Career Research Grant Reports, including an account of Franziska Bergmeier's work on *Molecular analyses of solenogaster midgut contents to determine food sources,* Alice Wilson-McNeal on the *Impacts of ocean acidification and pharmaceutical contamination on Mytilus edulis* and Samuel Abalde on *Using shotgun sequencing for disentangling a taxonomic jumble: the case study of the skenei-morphs.* Issue 77 included two book reviews—firstly of the book *Molluscan genomics: broad insights and future directions for a neglected phylum* by Angus Davison and Maurine Neiman which summarises a recent Royal Society conference, and secondly, of Peter Godfrey-Smith's book entitled *Other minds—the octopus and evolution of intelligent life.* The review also referenced a recent BBC documentary on octopuses. The obituaries included tributes to Brian Morton, Arie W. Janssen and Jack Burch.

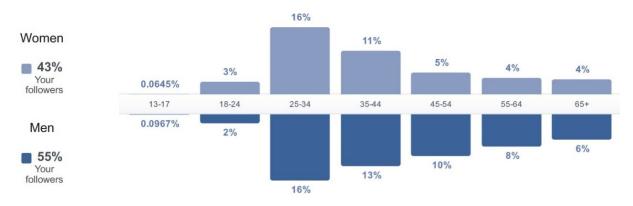
The February 2022 issue (Number 78) issue of *The Malacologist* was published on time and comprised 36 pages. As usual for the February issue, it included the notice of the AGM and nominations for Council. There were 17 pages of abstracts and a review of Rowson, B., Powell, Willing, M., Dobson, M. & Shaw H. *Freshwater snails of Britain and Ireland,* a book which had received financial supported from the Malacsoc. Issue 78 also included Early Career Research Grant Reports reports from Alice Buckner on *The immunological response of a gastropod mollusc to infection with a compatible trematode parasite*, Quiaz Hua on *Assessing population genetic structure and diversity of commercially harvested octopuses by use of conservation genetics* and Olga Utrilla Ojeda on *The molluscan fauna of mud volcanoes of the North Eastern Gulf of Cádiz: biodiversity and eco-biological effects.* 

### Website (report from John Grahame)

Overhauling and updating our website is an ongoing work-in-progress. For the first time in years the list of Council Members is accurate, at the cost of some loss of information (photographs). In the background, the site has been updated to recent WordPress standards; this work was done by the website's original designer. There has also been work on membership issues to do with subscription payment, which is now functioning more smoothly. As is the nature of these things, more remains to be done.

### Facebook & Twitter (report from Chong Chen and Lauren Sumner-Rooney)

The Society's Facebook page (*http://www.facebook.com/malacsoc/*) continues to perform well. We currently have 3,203 followers on the page, continuing the trend of gradual increase over the years. We therefore have a direct outreach population of over 3,000 people/organisations who receive notifications about our posts, for example the post advertising the Society's 129<sup>th</sup> AGM has been seen by 2,460 people to date. Age demographics of the followers reveal that most of the followers are relatively young (below 45 years old, see figure below). In terms of countries represented, we have the most followers from USA (464), followed by Mexico (326), the UK (230), Brazil (187), Italy (185), and the Philippines (164).



The Society's twitter account currently has 592 followers and is another useful resource for communications

### Awards (report from Awards Officer Lauren Sumner-Rooney)

### Awards granted

Following Covid-related disruptions, three ECR award recipients requested and were granted extensions on their research projects. Two of these have now sent their grant reports for publication in *The Malacologist*. One travel award recipient requested to transfer their award to an alternative conference, after a cancellation, and this was granted.

### Award applications

Overall, the Society is pleased with the number of applications that it receives for Travel Awards and Research Grants. The number of applications received for Travel Awards is however, still severely reduced due to the current global health situation. The schemes seem to be achieving their global aim to enable young scientists to engage in malacological research activity both in the laboratory/field and at meetings, and the Society has expanded the Early Career Research awards scheme to offer two new schemes aimed at widening participation (see below). Citable reports from researchers, funded through both schemes, appear in *The Malacologist*.

The Society aims to make the following awards annually.

Travel Awards - at least 5 each of up to £500 for Society members, £300 for non-members

Early Career Research Grants - at least 5 each of up to £1500, regardless of membership, plus one *Equity & Inclusion Award* and one *Global Development Award* for suitable applicants.

Senior Research Grants - up to 5 each of up to £1500, for members only

Application forms and guidance notes for both these schemes have been updated recently and can be downloaded from The Society's website.

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### The Malacologist

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## Early Career Research Awards

We received 17 applications for Early Career Research Awards in December 2021, from workers from 15 institutions in 10 different countries. Of these, three were eligible for the new *Global Development Award* and one was eligible for the *Equity and Inclusion Award*. Given the challenges faced by young malacologists over the past two years, and the healthy financial position of the Society, ten ECR awards were granted, including two *Global Development* and one *Equity and Inclusion* award.

On behalf of the Society, I would like to formally thank the members of the Grants Review Panel for their hard work in reviewing all applications. The Panel agreed the following awards, in alphabetical order. N. Abeyrathna (Clarkson University, USA), **£1450** 

- 'Genetic characterization of parasites in the invasive snail Cipangopaludina chinensis in the US'
- Z. Chen (Zoologische Staatssammlung München, Germany), **£1500**
- 'Whole-genome sequencing project of *Sadleriana bavarica* Boeters, 1989' N.K. Das (ATREE, University Bangalore, India), **£1500**
- 'Non-marine molluscs of anthropogenically impacted caves of Meghalaya: understanding diversity and threats for conservation'
- J. Fernandez-Simon (University of Barcelona, Spain), £1450
- 'Diversity and characterization of the meiofaunal molluscs of the Catalan coast (Western Mediterranean)' E. Giraud (University of Portsmouth, UK), **£1468**
- 'Ecological and evolutionary trade-offs in specialised predator-prey relationship where the prey is also a predator' L.B. Guzmán (Universidad Nacional de La Plata, Argentina), **£1500**
- 'Comparative mitogenomics and phylogenetics of *Biomphalaria* snails transmitting schistosomiasis' J. Martínez Sanjuán (Unviersity of Alabama, USA), £1500
- '3D morphoanatomic study and molecular systematics of Pruvotinidae (Mollusca, Aplacophora)' C. Monchanin (Thai Marine Ecology Center, Thailand), **£1450**
- 'Giant clam population, health and role as a substrate for scleractinian corals in Thai waters.' J.A. Vidal Miralles (University of Barcelona, Spain), **£1497**
- "Between sea angels and butterflies: a comprehensive phylogeny of Pteropoda molluscs"
- K.M. Zarzyczny (University of Southampton, UK), £1500
- 'The genetic consequences of tropicalisation by intertidal gastropods.'

The total cost to the Society of the awards was £14,815, with a success rate of 59% of applications

### **Senior Research Awards**

Three applications for Senior Research Grants made in June 2021 were awarded.

- B. Breure (Naturalis, Netherlands), **£1500**
- 'Peruvian land molluscs: towards an illustrated checklist with a visit to the Museum für Naturkunde, Berlin'
- C. Little (University of Leeds, UK), £1043.25
- 'Mineral coatings on gastropods at hydrothermal vent sites: implications for fossilization processes'
- H. Reise (Senckenberg Museum of Natural History Görlitz, Germany), £1500
- 'Hybridisation between the invasive pest slug Arion vulgaris and the native A. atee'

### **Travel Grants**

June 2021

No applications for Travel Awards were received.

December 2021

We received four applications for Travel Awards. All were deemed suitable for support. Given that no travel awards were made in June 2021, all four were awarded.

- A. Irwin, World Congress of Malacology, **£500**.
- N.K. Das, World Congress of Malacology, £300.
- K. Dey, International Conference on Aquatic Invasive Species, £500.
- T. Goulding, World Congress of Malacology, £500.

### Annual Award

The Society received two nominations for the Annual Award before the new deadline of 15<sup>th</sup> December 2021. Following review, the award went to Dr Franziska Bergmeier, for her PhD thesis;

'From shallow sands to deep-sea trenches: Towards integrative systematics of Solenogastres (Aplacophora, Mollusca)' completed at LMU München, Germany.

The reviewers felt that the extent and quality of the work undertaken were really exceptional, and make a substantial contribution to our knowledge on these somewhat enigmatic creatures.

On behalf of the Society, we extend our congratulations to Dr Bergmeier.



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### Other matters

### i. Use of references in scoring applications

Following the December 2021 round of ECR applications, Katy Collins highlighted the potential inequalities of using strongly weighted references in the selection process. Several issues are involved; first, as British and American referees are anecdotally more likely to be effusive, this may place other applicants at a false disadvantage. Second, applicants who have poor supervisory relationships may be placed at a disadvantage. Third, there were several instances in which one or even both references were missing. I was curious as to the reason and followed up the missing references; while one applicant had not informed their referees, the remainder had. These applicants are being handicapped by forgetful referees. There were also some examples of supervisors submitting a confirmatory email only, but being listed as a referee.

To explore the potential effects of references on overall scores, I compared the variance in scores for each criterion, for each reviewer in this round of applications. These were then corrected for the weighting given to each criterion. The corrected variance of References was the second highest of the criteria (following Value), indicating that it probably makes a substantial contribution to the total score variance. This is likely further exacerbated due to the high weighting of the references (15 points instead of 10). Incidentally, Value is the only other criterion scored out of 15; further clarification on the meaning of this criterion in the reviewers' instructions might be considered in future.

### Proposed solutions;

a) Reduce the weighting of References to 5 or 10 / 100.

b) Repeat on the application form that it is the responsibility of the applicant to ensure their referees submit recommendations (currently this is only on the website).

c) Remove the line '\*Supervisors should also send an email confirming their support' (section B2), and instead recommend that one of the two referees should be the supervisor (section B8).

#### ii. Summer studentships

Following discussions of a new summer studentship scheme for undergraduates from historically–excluded ethnic backgrounds, Dr Tanesha Allen (University of Oxford) has agreed to consult on this proposal. Details of the proposed scheme have been sent to Dr Allen and I will schedule a call to discuss it in the next couple of weeks.

### iii. Assessment of annual awards

Concerns were raised within Council regarding the assessment of the Society's Annual Award. The comparability of, for example, Masters and PhD theses, or work in different fields, was highlighted as a potential problem. While an informal review process within Council has previously been used to decide the awards, this will be reviewed in the next Council meeting (June 2022).

### **Presidents Report**

This has been my first year as President, and it is an enormous honour to have been asked to take on the role. It has been a huge learning experience and I would not have been able to do this job without the support and assistance of all the Council so thank you. Covid has of course meant that we have not been unable to meet as a Council in person this year and as in 2020, the Molluscan Forum was held entirely virtually. As the global covid situation changes, I hope we will be able to meet together over the coming year, but I feel we can use this experience to learn how we can better engage with Council who can not attend meetings and to reach wider audiences with our meetings whilst still encouraging collaboration and discussion at our in-person events.

Along with the *Journal of Molluscan Studies*, for me, the societies meetings, along with our awards and grants are the real stand-outs of the society's work. With the highly successful Molluscan Forum and the travel/research awards I think we have great opportunities to support and guide the next generations of malacologists. I am really excited about the new *Global Development Award* and the *Equity and Inclusion Award* and look forward to progressing with our studentship plans. We have also created an Early Career/Student Council position which I hope will allow us to react to the needs of the students and post-doc communities.



## **Officers and Council**

Council at March 2022, and nominations going forward to 2023:

Year of existence	2021-2022	2022-2023
	128	129
President	Jon Ablett (1)	Jon Ablett (2)
Vice Presidents	Phil Fenberg (3)	Fiona Allan (2)
	Fiona Allan (1)	Phillip Hollyman (1)
Ex officio	John Grahame (1)	
Councillors	Phillip Hollyman (3)	Alan Hodgson (3)
	Alan Hodgson (2)	Aidan Emery (2)
	Aidan Emery (1)	Robert Cameron (2)
	Robert Cameron (1)	Victoria Sleight (2)
	Victoria Sleight (1)	Katie Collins (2)
	Katie Collins (1)	Rowan Whittle (1)
		John Grahame (1)
EC-Rep		Thomas Goulding (1)
Co-opted	Rowan Whittle (1)	Phil Fenburg (1)
		Crispin Little (1)
Editor Journal of Molluscan Studies	Dinazarde Raheem	Dinazarde Raheem
Editor The Malacologist	Georges Dussart	Georges Dussart
Treasurer	Katrin Linse	Katrin Linse (final year)
Membership Secretary	Harriet Wood (1)	Harriet Wood (2)
Hon. Secretary	Debbie Wall-Palmer (1)	Debbie Wall-Palmer (2)
Web manager	John Grahame	John Grahame (web)
Facebook manager	Chong Chen /John Grahame	Chong Chen/Victoria Sleight
Twitter manager	Chong Chen/ Lauren Sumner	Lauren Sumner Rooney
Awards Officer	Lauren Sumner Rooney (1)	Lauren Sumner Rooney (2)
Archivist	Andreia Salvador (1)	Andreia Salvador (2)

The number in parenthesis means 'years in post'. These years are limited as described in the objects of the Society

## Report on the AGM virtual conference

# **Molluscan Tropical Biodiversity**

Welcomed by the President of the Society, Jon Ablett Hosted on Zoom on March 16th 2022



### **Morning Session**

11.00: Introduction

### 11.15: Dr Nur Leena Wong W.S. Senior Lecturer,

Department of Aquaculture, Faculty of Agriculture, UPM Head of Museum & Herbarium Unit, International Institute of Aquaculture & Aquatic Sciences (I-AQUAS), UPM, Port Dickson Email: nurleena@upm.edu.my

# Eating an undescribed species for 160 years - the problem with tropical cryptic species

A recently described oyster species which has been consumed locally in Malaysia for more than 160 years has brought to light the problem of cryptic species in the tropics. Using the example of several other cryptic slug species described in recent years, the talk emphasized the importance of international collaborations in the discovery of new species in the biodiversity rich tropical regions. The digitization of reference material provided by developed museums will greatly benefit developing nations in allowing access to museum collections and databases. Undescribed cryptic species have led to the underestimation of biodiversity in non-coral marine ecosystems. As there are few taxonomists in Southeast Asia, the puzzles of tropical cryptic species can only be solved through international collaborations.



Fig. Cryptic species *Sacoproteus smaragdinus* (top) and *S. nishae* (bottom) found coexisting in the same Caulerpa seaweed habitat.



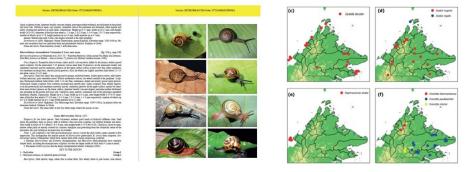
12.00: **Dr Liew Thor Seng**, Universiti Malaysia Sabah, Malaysia. Email: throseng@ums.edu.my

# Current status of land snail research in Sabah, Malaysian Borneo - what we have learned from two decades of work in Malaysia

Studies of the taxonomy and the processes that determine land snail diversity in Southeast Asia are still at an early stage despite nearly two centuries of malacological studies in the region. Until today, the species diversity of many groups of land snails from many places are yet to be described and documented. Nevertheless, a few groups of land snails have been studied in terms of their species diversity and distributions in this region. In this talk, I summarised 20 years of land snail studies in Sabah, Borneo by highlighting the described new species, the hotspot of species diversity, the biogeographical patterns, and the ecological and evolutionary processes that determine land snail diversity. Lastly, I discussed the challenges in land snail research in terms of availability of reference materials, research across country boundaries, publishing findings in scholarly journals and extinction of species based on what we have learned from two decades of work in Sabah.

### Diversity of land snails in Malaysia

Sabah & Labuan (Vermeulen & Liew, 2022)



### 12.45: AGM (all members welcome)

### Afternoon Session

14.30: Introduction

14.45 Dr. Rebecca J. Rundell,

Associate Professor & Head Curator, Roosevelt Wild Life Collections SUNY-ESF, State University of New York, Syracuse, New York USA E-mail: rundell@esf.edu

# Conservation and evolution of land snails in the lowland tropical rainforests of Belau (Republic of Palau, Oceania

Anthropocene tropical forests will probably be smaller, simpler, steeper, and emptier. This point may arrive more quickly on small Pacific islands (Edwards *et al.*, 2019; Cowie *et al.*,

2022). Although Palau's lowland rainforest is relatively intact, it has suffered from both colonial and modern human activities such as increasing development along the Compact Road of the "big island" of Babeldaob, and limestone mining activity in unprotected areas. Fortunately, Palauans' recent conservation efforts and continuing interest in their forest biota (including land snails) are hopeful signs for the effective management, protection, and use of their forests. We have partnered with the Palau government and NGOs to discover new land snail species, uncover species relationships, understand microhabitat use in Palau land snail communities, and above all, share information that is valuable for forest protection. Expanding our knowledge of species' geographic distributions within and among islands underlies our current evolutionary and conservation research. Recent projects (e.g. by graduate students Teresa Rose Osborne, David Bullis, Jesse Czekanski-



Moir, Emlyn Clark, and Brittany Leyda) focus especially on diplommatinids, punctoids, trochomorphids, and partulids, with the latter two land snail groups potentially benefiting from ongoing rat eradication projects with Island Conservation.

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Palau from the air

Palaeopartula thetis

15.30 Dr Vanessa L. Knutson California Academy of Sciences, 55 Music Concourse Dr, San Francisco, CA 94118 USA Email: vknutson@gmail.com

### Many species, but few names: phylogenetics and species delimitation of the (mostly) tropical nudibranch genus Gymnodoris

The tropical Indo-West Pacific is characterized by great species richness across many taxa and nudibranch diversity is no exception. While nudibranchs are quite charismatic marine gastropods—many treasured for their bright color patterns and popular with many naturalists and malacologists—many genera continue to harbour much undescribed diversity. One such example is the genus *Gymnodoris*, which is widely distributed throughout



A selection of Gymnodoris species. Photo credits: V.L. Knutson, C. Pittman

this region. Phylogenetic analysis and species delimitation analyses based on standard Sanger-sequenced loci demonstrate that *Gymnodoris* is highly under-described, with about 81% of a current molecular dataset belonging to undescribed species. This work highlights the need for basic characterization of many tropical marine taxa, which is certainly exacerbated in taxa that are cryptic in their habitats. Intriguingly, *Gymnodoris* phylogeny indicates that a linear arrangement of gill filaments may have evolved several times within the genus, perhaps related to burrowing tendencies or to their nature as active predators of non-sessile prey—nonetheless more work is needed to fully characterize evolutionary patterns in this genus. In order to address compelling questions about the nature of evolution of these charismatic molluscs, and to help characterize tropical habitats that are under significant environmental pressures, evolutionary biologists and malacologists as a community need to better incentivise alpha taxonomy, especially for early career malacologists, and foster and support international collaborations to accelerate this crucial work.

For further information, see https://doi.org/10.1016/j.ympev.2022.107470

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16.15: Break

16.30: Dr Christine Parent,

Associate Professor, Biological Sciences University of Idaho, Moscow, ID, USA E-mail: ceparent@uidaho.edu

### Drivers and constraints of diversification in Galápagos endemic land snails

Islands are ideal systems to track the evolutionary processes of diversification through time. In Galápagos endemic land snails, these processes have left a signature in the form of predictable patterns of phenotypic differentiation and community assembly over time.

As species accumulate via speciation and colonization on islands, biological communities increase in diversity and complexity, and species niche space becomes increasingly defined by a greater number of biotic dimensions whereas abiotic conditions remain the same across the archipelago.

In Galapagos, *Naesiotus* snails, phenotypic variation within species is found to be greatest on youngest islands and declines with island age, and this decline is tightly associated with the number of congeneric competitors found on each island. These results strongly suggest a pattern of increasing competition reducing phenotypic variation within species on older islands consistent with stabilizing selection.

By reconstructing the evolutionary history of *Naesiotus* snails and characterizing phenotypic variation and environmental and ecological variation where species occur, it becomes possible to determine the effect of selection stemming from increasingly complex communities on the tempo and mode of phenotypic differentiation. Ultimately this work represents a first, critical step n understanding the influence of multidimensional selection on the rate and trajectory of phenotypic evolution in natural systems, where multidimensional niche space prevails.



Naesiotus tortuganus

## **Book reviews**

## A Guide to Land Snails of Australia

Stanisic, J., Potter, D. & Stanisic, J. 2022. CSIRO Publishing, Melbourne. Pp: xii + 172.

If, like me, you are a professional malacologist, familiar with the land snail fauna of your own country, you have at your disposal learned monographs, original papers and national checklists. Your study shelves are full of these, and you access more online. You are familiar with museum collections and the arcane rules of scientific nomenclature. Go elsewhere, and you know how to home in on relevant work.

Now, though, you want to enthuse others with your passion; to help them to appreciate and identify the creatures that you have studied. You want more people to record snails, having identified them correctly. You want them to understand the contribution they make to biodiversity, and to be aware of the need for conservation.

I have on my shelves a host of books written to this end: from Cyprus, Czechia and Slovakia, Latvia, Portugal, Finland, Poland, Israel, the Netherlands and the UK. There are others. In each, there is an account of all the species known in each country. Most are in the range 250-350 pages; some are shorter. They deal with at most 200 species of land snail. Usually, there is room for much more information as background in addition to the means of identification.

Take larger areas, or more diverse faunas, and problems of size, cost and accessibility to the non-specialist arise. For Turkey, or for the vast territories of the ex-USSR, there are indeed single volume works, but with more than 700 species in each case, the presentation is stark, if taxonomically comprehensive.



## A GUIDE TO LAND SNAILS OF AUSTRALIA

OHN STANSIC, DARRYL POTTER AND LORELLE STANISIC



For larger or richer areas still, problems become acute. F. Welter-Schultes' monumental work *European non-marine molluscs* (2012, Planet Poster Editions), deals with *ca.* 2500 land snail species. Comprehensive for certain, but with more than 700 pages of fine print, a considerable weight, and a hefty price tag, it is, like those for Turkey and the USSR, not for the casual user.

And so, we come to Australia, a continent more than two-thirds the size of all Europe (more than 7 million km<sup>2</sup>). A continent as yet far short of having its land snail fauna fully described; a continent with many restricted endemics and huge differences in the faunas of its various regions; a continent with a mere 23 million people from which to draw a band of enthusiasts. Contrast this with 700 million in Europe.

Australia has a rich snail fauna. 1500 species have been described, and there are probably at least 1000 more to be dealt with. Nevertheless, two of the authors of this *Guide to Land Snails of Australia* have, with others, provided details of the whole fauna, lavishly illustrated, in two volumes (Stanisic, Shea, Potter & Griffiths, 2010, 2018) each dealing with nearly 800 species in nearly 600 pages. As with Welter-Schultes' work, these are necessarily both weighty and expensive. Not on every naturalist's bookshelf.

What to do? Here is the Australian answer: a short book, well-illustrated, designed to whet the appetite, and to provide some of the basic, background information about land snails as a group. It has ten full chapters, ranging from a history of molluscan study, through aspects of snail biology and their place in the environment to the more practical aspects of collecting, identification and uses (a final chapter is an entertaining and educational account of human uses, not all of which are gastronomic). Three central chapters give a brief account of each family (beautifully illustrated with images of live animals), the snail species introduced into Australia, many of which are pests, and a tour around no less than 37 regions, each with a distinctive fauna. Surely, this is a vital point, directing attention to faunas accessible locally to people living in such a vast country. At the end, there is a listing of families, a glossary, references and further reading, and an index to both scientific and vernacular names.

The book has several outstanding features. Top of my list are the magnificent images of live snails, nearly all with locality data and an indication of size. To my chagrin, having visited both the Kimberley in the far north-west, and the forests of north-eastern New South Wales and south-eastern Queensland, there are few that I have encountered which is a testimony to the huge diversity of which these images show a mere fraction.

The style is clear and easy-going, with a minimum of obscure technicalities. Six "boxes" take time out to focus on topics that deserve that little extra detail, each conveying some important idea that may shape the reader's thinking. As an overview of a rich fauna, still not fully catalogued, it does its job. Both visiting and local malacologists would benefit from reading it before they started to explore.

However, if inevitable, this is not a guide to identification at the species level, despite the chapter on identification and the glossary of terms. There is no short cut here. Scanning electron micrographs of protoconchs are beyond the means or ability of most, and dissection must be much the same for the beginner. In effect, the chapter tells you how the experts go about it. Perhaps wisely, there is no mention of molecular taxonomy, nor of the labyrinthine world of scientific nomenclature. Species are accorded both scientific and vernacular names.

There are some minor niggles. The plates illustrating shells typical of each family suffer from a lack of scale, although the range of size is given in the chapter devoted to brief accounts of each family. Operculate snails could have done with an illustration early on (p. 13), including the operculum. The illustration of genitalia (p. 21) does not feature the ovotestis. The word "denizens" is misused (p. 31).

This book is an interesting experiment. In a single country that is also a continent with a rich and only partly described snail fauna, there can be no simple, single-volume guide such as those produced for much smaller European nations. As the authors demonstrate, however, many endemic species are at risk. If this book raises awareness of these risks, and of the beauty and diversity that may be lost, it will have served its primary purpose. While I am a little shocked by the price, quoted as £ 39.95 in the UK, it will surely be required reading for malacological visitors to that intriguing country.

#### References

Stanisic, J., Shea, M., Potter, D. & Griffiths, O. 2010. Australian Land Snails. Volume 1: A Field Guide to Eastern Australian Species. Bioculture Press, Mauritius.

Stanisic, J., Shea, M., Potter, D. & Griffiths, O. 2018. *Australian Land Snails. Volume 2: A Field Guide to Southern, Central and Western Species.* Bioculture Press, Mauritius.

Robert Cameron (Professor)

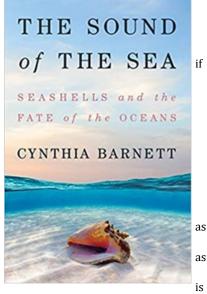


### The Sound Of The Sea

Cynthia Barnett W. W. Norton & Company, New York 2022 ISBN 978-0-393-65144-7 (Hardback), 417pp.

Humans have had a long association with molluscs and their shells, and in this newly published book, Cynthia Barnett explores this varied association. The structure of the book is refreshingly different. The narrative of each of the 13 main chapters is woven around a particular species that is illustrated by a full page pencil sketch at the beginning of the chapter (these are the only illustrations). Most of the molluscan examples, chosen as the nucleus for each chapter, are gastropods with only two chapters (three the introduction is included) allocated to bivalves. However, other shelled molluscs such as the chambered nautilus do make appearances in the book. The book covers a great deal of ground in which the author looks at historical aspects related to the collecting and trading of shells, general uses of shells (e.g. money, adornments, tools, musical instruments, building material), cultural and religious uses of shells, as well as the effects of over exploitation and climate change<sup>1</sup> (pollution, ocean acidification, global warming) on molluscs. Thus the disciplines of archaeology, anthropology, environmental science and biology all feature in the book.

Also included are revelations of how shell deposits of archaeological value have been plundered or destroyed by humans. Throughout the book, Cynthia Barnett includes information from discussions with some well-known authorities on molluscs, as well life-story information about some of these scientists, shell collectors and traders (e.g. the origin of the Shell Oil company began as a family business importing exotic shells), well as some unsung and therefore generally unknown contributors to shell collections and drawings, and research. The book is an interesting read, and although there



little scientific detail on molluscs, I would recommend it to established malacologists and conchologists. I would also recommend the book to students whose study animals are molluscs because, in their training, they may not have been exposed to fascinating historical and archaeological aspects of conchology. Unfortunately at £18.99 in hardback, I am not sure that many students will purchase the text. Perhaps it will soon be available in softback?

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I detected only a few errors in the book (e.g. proof reading error on page 303, *Tridacna gigas* is said to release 500 eggs during spawning - the vital word 'million' is missing). The writing style is conversational, and at times the author does include imaginative embellishments more typical of a work of fiction. One or two sections of the book read rather like a travelogue.

After reading the book I was left with the impression that it is aimed at the American market (the author is USA based). I reached this conclusion for a number of reasons. Many of the exemplar species used as a basis for the theme(s) of each chapter are from American waters. Settings are also often American biased. Florida and Sanibel Island, for example, are prominent in the narratives. Most of the malacologists/conchologists consulted, interviewed, or indeed given prominence in the book are also American. All measures and weights are those used in the USA (e.g. weight in pounds), and not metric. Finally, when trying to give the reader some idea of scale, the author sometimes compares size to that of a nickel or dime coin (I wonder how many people from outside the USA know how big these coins are?). Nevertheless, do not let this put you off reading it. The research that has gone into the book is impressive, the author does include narratives based around visits to the Maldives and Ghana and the issues covered using the chosen shelled examples are globally relevant. The book also contains, at the end, a useful set of notes for each chapter including references for further reading.

As an endnote the author's main title for the book – *The Sound of The Sea* – is not unique. The title is the same as a 2005 children's book written by the Australian author Jacqueline Harvey and illustrated by Warren Crossett, as well as a 19<sup>th</sup> century poem by Henry Wadsworth Longfellow.

<sup>1</sup>The book is fittingly published in the year in which we had COP26

Alan Hodgson (Emeritus Professor)



## **Interesting Shells**

Andreia Salvador Natural History Musum, London

This pretty little book uses the extensive resources of the Natural History Museum of London (NHM) to present photographs and supporting information for a range of mollusc shells. The author is Senior Curator of Mollusca at the NHM and for each shell, the photograph is supported by a short, accessible description of features of interest.

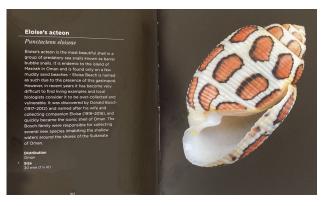
The book opens with a clear description of the general biology of molluscs, arranged by systematic class. The contents are then organised so

that the photograph is on one page and the accompanying text is on the facing page. The photographic quality is excellent; because of the size of the object (the shell) it is not easy to make sure that the whole shell is in focus for a photograph, but this has been achieved here. None of the photos show sections of the shells. Colours are realistic, and of a consistent quality throughout the book. Confusing backgrounds are omitted so the reader gets a feeling for the true architecture and colour of the shell.

The accompanying text is well-written and clear so that a non-specialist could understand it. The text includes brief information on the size and distribution of the mollusc. The concise text adds to the value of each image and prevents this from

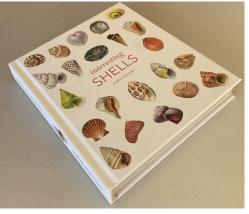
being a mere picture book. There is a conundrum however, because the text is often about the living animal and the photographs show the beautiful but lifeless shell. At some point in the future, an author will produce a similar book showing the living, crawling or floating animal.

At 256 pages, the book is a perfect length. It will mainly be enjoyed by non-specialists but as a freshwater malacologist, I appreciate having a marine/terrestrial shell book on my shelf. It feels a bit foreign, and I have enjoyed exploring the unfamiliar territory through which it guides me. *Interesting shells* would make a lovely gift for an enthusiastic biologist of any age, and if no one thought to gift me a copy, I'd gladly pay the retail price of £12.95 for the hardback. And the reader wouldn't need to be a biologist; anyone with a sense of beauty and aesthetics would be moved to see what natural selection



has achieved in the composition, form and colour of these shells. The objective of the book seems to be to grab the reader's attention with an illustrated review of the range and beauty of a limited number of shells held by the NHM. This objective seems has been beautifully and economically achieved.

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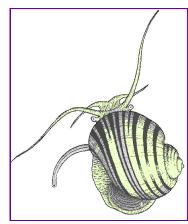


# The Malacological Society of London

WWW.MALACSOC.ORG.UK

# **Molluscan Forum**

Thursday 17<sup>th</sup> November 2022 9.00 – 6.30 Flett Lecture Theatre Natural History Museum, London



# CALL FOR REGISTRATIONS AND PAPERS

This informal, annual, and successful meeting is designed to bring together people starting their research on molluscs, to give them the opportunity to present and discuss their work and to compare notes on methods and problems.

Attendance at the Molluscan Forum is open to all, but presenters should be **research students**, **post-doctoral researchers**, **undergraduate students** starting molluscan projects, and **amateurs** engaged in substantial projects that have not yet been published. Any topic related to molluscs is acceptable: palaeontological, physiological, behavioural, ecological, systematic, morphological, cellular, or molecular.

Short talks (~12 minutes) or posters may be offered. They need not be polished accounts of completed work; descriptions of new methods, work in progress, and appeals for assistance with unsolved problems are equally acceptable.

With a hybrid format this year we will have two virtual sessions (with limited space) to give those unable to travel to London a chance to present their work. Posters will all be presented in person.

THERE IS **NO** REGISTRATION FEE.

## Enquiries and registrations to:

Phil Hollyman, British Antarctic Survey (phyman@bas.ac.uk)

## Non-presenters:

Virtual attendance of talk sessions for non-presenters will be possible (poster sessions will be in person), so please indicate whether you will be attending in person or virtually. Please let us know you will be coming so that we can estimate numbers.

## Molluscan Forum, Thursday 17<sup>th</sup> November 2022 9.00 – 6.30 Flett Lecture Theatre, Natural History Museum, London

## **REGISTRATION FORM**

Return before 1<sup>st</sup> October 2022, by email to:

Phil Hollyman, British Antarctic Survey (phyman@bas.ac.uk)

Name.....

Institute.....

.....

Email.....

Status: Research Student / Undergraduate / Post-doctoral researcher / amateur (delete as appropriate)

'Other' (please state) .....

I wish to give a talk / poster (delete as appropriate) entitled:

.....

.....

I would like to present in person / remotely (talks only). Delete as appropriate.

Please attach, as a Microsoft Word attachment, an abstract of not more than 350 words TOGETHER WITH TWO .JPG IMAGES IN SUPPORT OF THE ABSTRACT. Abstracts and images of accepted contributions will be published in the Society's on-line bulletin which is called *The Malacologist*. *The Malacologist* has an ISSN number and is published and archived on the website of the MSL. Articles are citable

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Abstract submission

Abstracts submitted for the Molluscan Forum should be sent as Microsoft Word files.

Please use the following format:

Title (12pt, centred) <blank line> Authors (10 pt, centred, presenting author underlined; use superscript numbers to indicate institutional affiliation) <blank line> Institutions (10pt, centred; in this order: Number (superscript), Department, Institution, City, Country) Presenting Author email <blank line> Abstract (11pt, no indentation, justified, 350 words maximum)

## **EXAMPLE ABSTRACT**

## The Geographic Scale of Speciation in *Stramonita* (Neogastropoda: Muricidae)

Martine Claremont<sup>1,2</sup>, Suzanne T. Williams<sup>1</sup>, Timothy G. Barraclough<sup>2</sup> and David G. Reid<sup>1</sup>

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Stramonita is a relatively small, well-defined genus of muricid marine gastropods limited to the tropical Eastern Pacific and the Atlantic. The type species, S. haemastoma, is known to have teleplanic larvae and is estimated to remain in the water column for several weeks. Stramonita haemastoma shows regional variation, and this has led to the recognition of five geographical subspecies: S. h. haemastoma, from the Mediterranean and Eastern Atlantic to Brazil, S. h. floridiana, on the east coast of Florida and in the Eastern Caribbean, S. h. caniculata on the west coast of Florida and the Gulf of Mexico, S. h. rustica in the Western Caribbean and S. h. biserialis in the Eastern Pacific. The protoconch has been shown to be similar across the S. haemastoma complex, implying that all subspecies have equally long lived larvae. Within these subspecies, cryptic variation is suspected. For example, S. h. biserialis is suggested to be differentiated North/ South on a small scale. In the presence of teleplanic larvae, speciation on such a small scale seems paradoxical. Various explanations for this paradox are possible. Actual (or realized) dispersal of Stramonita species may be more limited than presently believed, leading to allopatric differentiation. Alternatively, morphological differentiation may not be a reliable indicator of genetic differentiation, and S. haemastoma (sensu *lato*) might indeed prove to be a single taxa. It is also possible that ecological speciation could result in geographical speciation on a small scale in the presence of wide dispersal. My results suggest that five species of *Stramonita* are present in the Caribbean, at least three of which occur sympatrically. Gene flow is maintained between Caribbean and Mediterranean populations in at least one species, while no genetic differentiation was found along the Eastern Pacific coast. The implications of these results are discussed.



**Grants and Awards** 

# Malacological Society of London Awards and Grants

# Please note! The Society is currently trialling a new Travel awards schedule, to better align with the academic seasons.

Travel Grants are available as bursaries to support attendance at a conference or workshop relevant to malacology. Grants are preferentially conferred on students and researchers without professional positions. The maximum amount for one of these awards is £500 for Society members and £300 for **non-members**; the Society anticipates that at least **five awards** will be made annually. The application should have the support of the project supervisor. In years when a UNITAS Congress is held, a number of these awards will probably be used to support participation at this meeting.

There are now two closing dates each year, **1**<sup>st</sup> **March** for travel awards starting between 1<sup>st</sup> June and 30<sup>th</sup> November of the current year, and **1**<sup>st</sup> **September** for travel starting between 1<sup>st</sup> December of the current year and 31<sup>st</sup> May of the following year. You must apply to the correct round of awards. <u>https://malacsoc.org.uk/awards-and-grants/travel-grants/</u>

Your application should have the support of your project supervisor; please <u>ask your supervisor to complete question 7 and</u> <u>sign and date the form</u>. Please note that the supervisor's comments make an important contribution to the decision making process and should provide sufficient detail about the applicant and the benefits expected from their travel. Note that it is your responsibility to ensure contact details are provided by the supervisor. The Society will not contact supervisors on your behalf.

### Submission of your application

Please submit your signed and completed application by email to the Honorary Awards Secretary at MSL\_awards@nhm.ac.uk, with "Travel Award Application" and your surname in the subject title. If you are unable to scan the file with your supervisor's signature, please ask them to email their support to the Honorary Awards Secretary.

The Society **does not accept** applications for support in arrears, i.e. after travel has taken place. Applications for travel scheduled between June and November must be submitted in advance and by the 1<sup>st</sup> March, and for travel scheduled between December and May must be submitted in advance by the 1<sup>st</sup> September.

### Conditions

The Society is trialling upfront payments of travel awards to alleviate financial pressure on recipients. Recipients of Travel Awards will be asked to provide evidence of attendance at the event for which funding was sought, and if travel does not take place, recipients commit to repaying their award.

Recipients are also requested to acknowledge the financial support of the Society on posters or during oral presentations

Any enquiries should be directed to the Honorary Awards Secretary at MSL awards@nhm.ac.uk

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The Research Awards Scheme was established to commemorate the Society's Centenary in 1993. Under this scheme, the Society gives awards to support research on molluscs that is likely to lead to publication. Grants are preferentially conferred on students and researchers without regard to nationality or membership of the Society. Preference is also given to discrete research projects that fall within the subject areas covered by the Society's *Journal of Molluscan Studies*. Applications will be assessed by scientific merit, value of the project and for student applicants, the extent to which the research will benefit the applicant's scientific aspirations. Awardees are encouraged to publish their work in the *Journal of Molluscan Studies* (full papers) or *The Malacologist* (travel award reports, research award reports, news of ongoing research etc) as appropriate,

### Early Career Research grants

Eligibility is restricted to those investigators at the outset of their independent scientific career. Applications must therefore be 1) postgraduate students, 2) within five years of being awarded their PhD (adjustable for career breaks), or 3) independent researchers not having a PhD. Early Career Research Grants will only be awarded to individuals twice, but not within 3 years of receiving a first award. The closing date for applications each year is the 15<sup>th</sup> December. The successful applicants will be notified by 31<sup>st</sup> March and announced at the Annual General Meeting. From 2021, the Society will award additional grants to applicants who also wish to be considered for an **Equity & Inclusion** award (open to UK/EU applicants from historically excluded backgrounds) or a **Global Development** award (open to applicants from developing and transition nations, following UN definitions).

### Sir Charles Maurice Yonge Award

Successful applications to the Early Career Research Grants scheme or Travel Awards that are concerned with the study of Bivalvia may be awarded as Sir Charles Maurice Yonge Awards

### Senior Research Awards

These awards are aimed at established researchers in professional positions, but without regard to nationality. Applicants for Senior Research Awards must be members of the Malacological Society of London. The Society currently awards up to five Senior Research Grants per year, each with a value of up to £1,500, to support research on molluscs that is likely to lead to publication. The maximum amount available should not be considered as a 'target'; rather, requests should reflect the research that is proposed. The grants are reviewed by a Reviewers Panel including both Council and, if required, non-Council members invited for that purpose.

### **Travel Grants**

Travel Awards are available as bursaries to support attendance at a conference or workshop relevant to malacology. Grants are preferentially conferred on students but researchers without professional positions may also apply. The maximum amount for one of these awards is £500 for Society members and £300 for non-members. Preference will be given to members of the Society. There are now two closing dates each year, 1<sup>st</sup> March for travel starting between 1<sup>st</sup> June and 30<sup>th</sup> November of the current year, and 1<sup>st</sup> September for travel starting between 1<sup>st</sup> December of the current year and 31<sup>st</sup> May of the following year.

For further information, guidance notes and to access the application form see here - http://malacsoc.org.uk/awards-and-grants/travel-grants

### Annual Award

This Award is made each year for an exceptionally promising initial contribution to the study of molluscs. This is often a thesis or collection of publications. The value of the Award is £500. Candidates need not be a member of the Society but must be nominated by a member. There is no application form: the nominating member should send the material for evaluation with a covering letter or letter of support to the Honorary Awards Secretary. The closing date each year is 1st November. The winner(s) will be notified by 31st March, and announced at the Annual General Meeting.

### Applications

Applications for Research Awards and Travel Grants should be sent to the Honorary Awards Secretary at <u>MSL awards@nhm.ac.uk</u>. For further information, guidance notes and to access the grant application form see http://malacsoc.org.uk/awards-and-grants/research-grants

Please note that all applications must be sent by email to MSL\_awards@nhm.ac.uk.

## Malacological Society of London-Membership notices

### **Objects**

The objects of the Society are to advance education and research for the public benefit by the study of molluscs from both pure and applied aspects. We welcome as members all who are interested in the scientific study of molluscs. There are Ordinary Members, Student Members and Honorary Members. Members are entitled to receive a digital copy of the *Journal of Molluscan Studies* and such circulars as may be issued during their membership. The society's Web Site is at:

http://www.Malacsoc.org.uk

### **Publications**

The Society has a continuous record of publishing important scientific papers on molluscs in the *Proceedings*, which evolved with Volume 42 into the *Journal of Molluscan Studies*. The *Journal* is published in annual volumes consisting of four parts which are available on -line by members and student members. The Society no longer produces paper copies of the Journal. Members also receive access to *The Malacologist*, which is the bulletin of the Society, issued twice a year, in February and August. *The Malacologist* is published on-line. on the website of the Society.

### Meetings

In addition to traditional research on molluscan biology, physiological, chemical, molecular techniques are amongst the topics considered for discussion meetings and papers for publication in future volumes of the *Journal*.

### Subscriptions

### **Membership fee structure** Ordinary Members: Journal on-line only £45

Student Members: Journal on-line only £25

### **Methods of Payment**

- (1) Sterling cheque to "The Malacological Society of London".
- (2) Banker's standing order to: HSBC (Sort code 40-16-08 Account no. 54268210) 63-64 St Andrew's Street, Cambridge C32 3BZ
- (3) Overseas members wishing to pay electronically should should use
  IBAN GB54MIDL4016084268210
  SWIFT/BIC MIDL GB22

(4) Credit card: Overseas members ONLY may pay by credit card: the Society can accept VISA and MasterCard payments only. Please provide the Membership Secretary with your card number and expiry date, card type (VISA or MasterCard.), the name on the card, and the cardholder's address (if this differs from your institutional address). Receipts will only be sent if specifically requested.

### Institutional Subscriptions to the Journal

Enquiries should be addressed directly to Oxford University Press, Walton Street, Oxford OX2 6DP, U.K.

### **Change of Member's Address**

## Please inform the Membership Secretary of a change of postal or email address



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