

Bulletin

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Further information at http://www.bryozoa.net/iba/index.html

PRESIDENT'S COMMENT

How valuable, really, is a single bryozoan specimen from Brazil? Or India? Or anywhere else in the world? You might think this might depend on its uniqueness. But many governments have now decided that doesn't matter. Any biological material is a national resource that should not be freely shared across borders.

The restrictions on international access to biological specimens have become increasingly severe. Many biologists are convinced they impede important research relating to biodiversity.

This is why the editors of Zootaxa have recently been preparing a statement calling for a repeal of such regulations by nations around the world. They point out that many biodiversity-rich regions have been lured by the false promise of vast riches to be gained from commercializing their genetic resources. In fact, over the past 20 years, despite large efforts by pharmaceutical firms, among others, very little commercialization has been realized. Meanwhile, essential taxonomic research is not getting done.

The current draft from Zootaxa editors includes excellent data and arguments that I had not previously considered. It is nicely written, and should appear soon as a letter in Nature or Science. A more detailed version to may appear somewhere else, such as a future issue of Zootaxa. The initiative is being led by K.D. Prathapan (Kerala Agriculture University) with support from a growing legion of taxonomists from around the world.

Watch for it. I think this is important.

Tim Wood, IBA President



NOTE FROM THE TREASURER

The IBA books are in pretty good shape in mid-cycle between conferences. Total income since 1 April 2016 has been NZD\$4311 (from 35 donations). Total expenditure since 1 April 2016 has been NZD\$963 (mostly student prizes at the conference). In total we have in the bank NZD\$5424, which is about 3500 Euros, which could fund about three student travel grants. If we have more in the bank, we can make more awards to more young scientists – this is the future of the IBA. Please think about your donation. The Treasurer will accept any kind of donation in any currency at any time, but the easiest thing is if you will fill out the attached form and email it to abby.smith@otago.ac.nz.

Abby Smith, IBA Treasurer



NEWS FROM THE MEMBERSHIP

Amalia

Juan Cancino - Tim Wood, María Cristina Orellana and I spent 3 weeks last February doing research on Phylactolaemates at the International Learning Centre at Laem Phak Bia, north of Bangkok, thanks to Tim's invitation and his Thai connection at Kasetsart University (I understand that he has been going to Thailand for around 15 years).

Amalia Herrera - This is good news! please find below the new website: Bryozoan from the Pacific, just coming out from the oven. I hope you like it, and please do not hesitate to send me your comments. The content is in English and Spanish. http://biogeodb.stri.si.edu/briozoos/ Saludos,

Hans De Blauwe - After 4 years, I finished my second book "Strandvondsten – een praktische veldgids". This time bryozoans only occupy a small part of the book. It is a field guide in Dutch, for everything that might beach or live on the sandy beaches from the North of France, the Belgian coast and the coast of the Netherlands. It deals with animals, seaweeds, flora and natural and artificial products. It counts 336 pages. http://www.vliz.be/en/event/2017-06-29-book-presentation-strandvondsten?

This winter I came across a tropical bryozoan that settled and survives in our could water at a warm water outlet of a nuclear power plant. It is *Biflustra grandicella*. The story about this remarkable species is already published in a paper in Dutch.

At the meantime, I received some plastic debris washed ashore. I identified *Cribrilina mutabilis* on it. I contacted Matthew Dick about this species and it seems to be found in several countries in the Northern hemisphere. Nothing is published yet about its occurrence outside Japan. I would like to take the initiative to write a paper on its occurrence and whatever turns up to be interesting about it. If you have found *Cribrilina mutabilis* in your country and want to participate as co-author in this paper, you can contact me (deblauwehans@hotmail.com) and send me photos, material or information about place, date and abundancy, substrate and so on.

Now I try to enjoy the Belgian summer with my wife. She has recovered well from her illness and started working on part-time base in July.

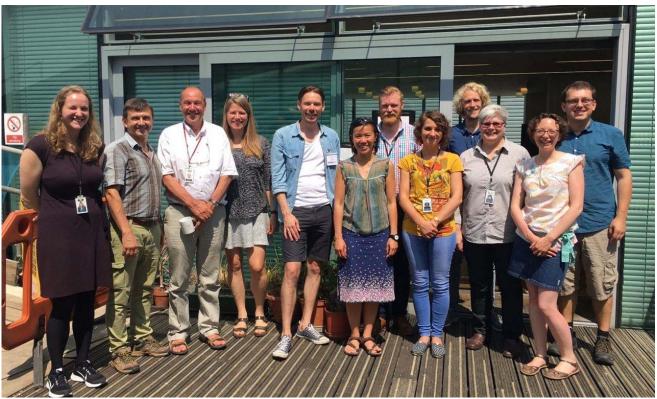


Andrea Waeschenbach - From 19th – 21st June the Leverhulme project 'Molecules meet fossils – an integrated approach to studying palaeodiversity' was kicked-off in style at the Natural History Museum London to discuss data generation, milestones and cross-project collaborations with Lee Hsiang's and Piotr Kuklinski's recently awarded grants on 'Abiota, Biota & Constraints in Macroevolutionary Processes' and 'Revealing global pattern in bryozoan skeletal mineralogy and its implication for understanding impact of climate changes on marine invertebrates', respectively.

For three days we enjoyed lively discussions with Andrey Ostrovsky from Vienna University, Lee Hsiang Liow, Kjetil Voje and Russell Orr from Oslo University, and Paul Taylor, Emanuela di Martino, Silviu Martha, Helen Jenkins, Mary Spencer Jones, Natalie Cooper, Andrew Briscoe and Heather Grant from the NHM London. We were also lucky enough to welcome Piotr Kuklinski, Dennis Gordon and his new PhD student Carolann Schack and Scott Lidgard via Skype.

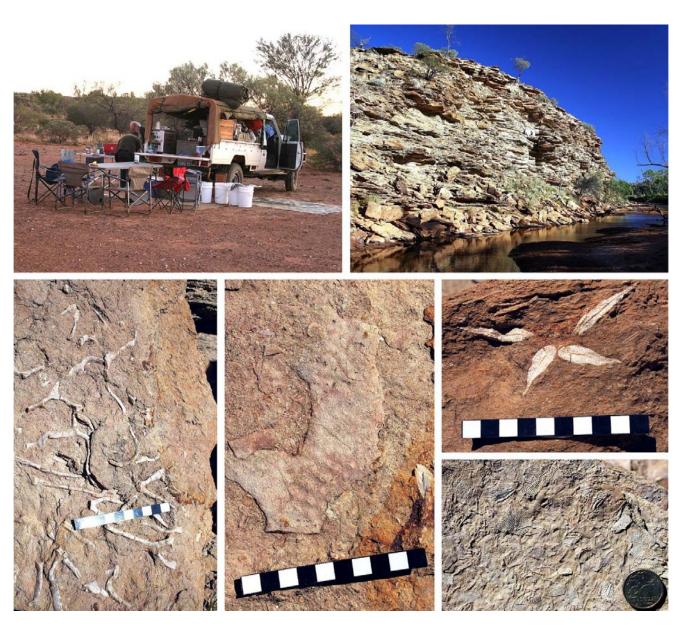
Key topics that were discussed were a) taxon sampling strategies and data generation for producing a family-level molecular phylogeny of cheilostomes, b) key traits (and their origins) to be investigated for their effect on diversification rates of cheilostomes through time, c) feasibility of reconstructing predation and competition pressures through time, and d) construction of a morphological character matrix for fossil and recent taxa needed for a total-evidence time-calibration of the molecular phylogeny. Furthermore, **Alex Ball** from the NHM Imaging and Analysis Centre gave an insightful presentation on high-throughput SEM imaging.

At this point I want to extend my thanks to everyone for working so hard over these three days and for making it so much fun, too!



From left: Heather Grant, Andrey Ostrovsky, Paul Taylor, Andrea Waeschenbach, Russell Orr, Lee Hsiang Liow, Andrew Briscoe, Emanuela di Martino, Kjetil Voje, Mary Spencer Jones, Helen Jenkins, Silviu Martha

Andrej Ernst, Eckart Håkansson & Lena Thrane – The story of the Weird & Wonderful bryozoans in Western Australia continues. On the 1st of June the three of us headed northwards from Perth to work with a couple of new localities of the Callytharra Formation (Lower Permian, Sakmarian-Artinskian) in the Southern Carnarvon Basin. Late the next day later we joined four colleagues from the UWA and Geological Survey of WA camped at a section somewhat east of the original outcrop at Dead Man's Gulley. The exposed succession constitutes an almost complete sequence of the Callytharra Formation comparable to that at Dead Man's Gully. In addition to the sampling of material for the on-going taxonomic investigation, we collected data relevant to a better understanding of variation in the depositional environment, including orientation of colonies preserved in life position. After two good days we spend most of the day moving to Bidgemia Station, to investigate a locality situated at the southern end of the Carnarvon Basin. This splendid outcrop – Wyndham Gap – exposes the upper part of the Callytharra Fm in the only cliff exposure of that formation. Thin-bedded parts of the profile almost completely consist of abundant delicate fenestrates and rhabdomesines, whereas thick-bedded parts contain large and coarse fenestrates and cystoporates. We collected outstanding material there. At the 7th of June we returned to Perth and spent two days at UWA, working with samples. Most of the collected material went to Hamburg for further study.



Top: camping near Bidgemia outcrop; cliff at Bidgemia consisting of the limestones of the upper part of the Callytharra Formation. Bottom: bryozoans from the Bidgemia outcrop.

Hannah Mello - I am very pleased to share that I have accepted a doctoral position at the University of Otago in Dunedin, NZ under the supervision of Abby Smith. We will be investigating bryozoan beds and marine reserves along the coast of New Zealand. This will include establishing baseline bryozoan occurrence data for newly-proposed protected areas, as well as comparing current bryo-bed conditions to historic samples taken from both the North and South Island. I look forward to getting back to all things bryozoan this November!

Scott Lidgard - While it's certainly not bryozoan-centric, "Biological Individuality: Integrating Scientific, Philosophical, and Historical Perspectives," co-edited by Scott Lidgard and Lynn Nyhart, is now out from the University of Chicago Press. Everybody knows what "an individual" means—an individual person, an individual plant, an individual mushroom (but what about an individual zooid?). Yet even scholars who practice or analyze the biological sciences often can't agree on what an individual is and why. One reason is that concepts of biological individuality serve different purposes—defining, classifying, or explaining living structure, function, interaction, persistence, or evolution. Practice and theory point to individuals at different levels of organization, from genes to organisms to symbiotic systems. We depend on notions of individuality to address theoretical questions about multilevel natural selection and Darwinian fitness, and empirical questions about development, function, and ecology; to ground philosophical questions about the nature of organisms and causation; and to probe the historical and cultural circumstances that resonate with parallel questions about the nature of society. There isn't and shouldn't be a one-way street from current biological paradigms based on model organisms leading to philosophical generalization and historical reification. Nature is too messy for that, organisms too quirky in the diverse ways they reproduce, function, and interact, and human ideas about individuality too fraught with philosophical and historical meaning. The historians, philosophers, and biologists contributing to this book reach beyond their home disciplines to broaden the contexts within which biological individuality is currently discussed.

Abby Smith - Report from a Bryozoologist on the Move - After four gruelling (and almost bryozoan-free) years leading the Department of Marine Science at the University of Otago, I was awarded an 11-month sabbatical for recovery, remembering, refreshment, reinvigoration and reinspiration. How better to spend it than among IBA folks??

I left New Zealand in mid-April and headed straight for the welcoming arms of the Natural History Museum, where Mary Spencer Jones, Paul Taylor, Andrea Waeschenbach and others all made me very welcome. Had a day in the Chilterns with Kevin Tilbrook, and a day in Exeter & Plymouth with Helen Jenkins and family. Then off to Dublin to see Patrick Wyse Jackson, Belfast to visit the Portaferry Lab, and thence to Thurso (Jen Loxton) and Orkney (Jo Porter). Finally a week in Cardiff with Caroline Buttler before flying to Vienna for the Larwood (Thomas Schwaha).

And thence to New England, where I collected freshwater bryozoans with Mary Sears in Cambridge Mass. At present I am settled in a family cottage on the coast of Maine, awaiting visits by Marcus Key and Steve Hageman. Now that's a lot of bryozoology! Here are some of the bryozoan projects I've kicked off or worked on or am thinking about: Effect of marine protection on intertidal bryozoan faunas; bryozoans of Hutton; bryozoan encrustation on Perna canaliculus; effects of plastic microbeads on living bryozoans; skeletal pigments in lodictyum; Big Questions in Bryozoan Mineralogy; Hornerids of southern New Zealand; longevity of Calcein staining in temperate carbonates. Plus I'm collecting bryozoans in the Gulf of Maine and working on identifying them. Frankly, I'm as happy as a pig in mud. Cheers to you all, Abby Smith.

Mary Sears, Abigail Smith and Kira Treibergs met up for a Freshwater Bryozoan Expedition on July 8, 2017, at the historic Mt. Auburn Cemetery in Cambridge, MA. Although Mt. Auburn is a renowned location for birding, aquatic species are not usually on display. This year, however, Mt. Auburn's Willow Pond is having a spectacular bloom of *Pectinatella magnifica*. It was a fortunate coincidence that Abby was in the area for a few days in the middle of the bloom. We found many colonies anchored to sticks near the SW shore and some appearing as floating islands. It has been ten years or more since the last bryozoan bloom at Mt. Auburn, according to Harvard MCZ's Joseph Martinez. Mt. Auburn, the final resting place of naturalists Louis Agassiz, Asa Gray and William Brewster among many notables, is recognized as an important urban wildlife habitat.







Patrick Wyse Jackson has been conferred with the higher doctorate Sc.D. by the University of Dublin on the basis of his published papers in bryozoology.

He writes: "I am most grateful to all of my collaborators in the IBA who have helped me produce the body of work that was submitted. I have received encouragement from many quarters and have benefited greatly from the collective expertise of the members. Thank you."





BRYOZOAN VIDEO

Alvaro Migotto (CEBIMAR, USP) sent me the link to his newest video — release of sperm [technically spermatozeugmata or sperm aggegrates] in *Virididentula dentata* (Bugulidae). There are cross links from this video to others done by Alvaro on a range of small organisms. [I love the one on food ingestion in a salp.] I was pleased to meet him when I visited CEBIMAR in December 2008 — he was Leandro's supervisor. I asked Alvaro if he was ready to share this latest achievement with the bryozoological community and he replied yes. Enjoy!

It is available at https://www.youtube.com/watch?v=cLgyBaR3zAY.

Dennis Gordon

LARWOOD MEETING 2017

Vienna 25th-28th May

Thomas Schwaha

At the end of May I had the pleasure to host this year's Larwood meeting in Vienna, Austria. The meeting took place at the 'Organismal Biocenter' of the University of Vienna. In total 46 participants from 14 different countries attended the meeting. The meeting started with an icebreaker in a typical Austrian restaurant where people could enjoy typical Austrian food. The first day of talks was a very intense day of 24 talks starting with Paul Taylor with Campanian bryozoans and ending with another memorable talk from Norbert Vávra on Miocene bryozoans. For the evening event, we finished the day at the institute with a BBQ.

The next day was a short combination of a few additional talks finished by an advertisement of Andrew Ostrovsky for a bryozoan-focused White Sea Course in 2018. Afterwards, we went on a trip to Krahuletzmuseum in Lower Austria where we got a short introduction into the history of the museum and its collection by the director Johannes Tuzar followed by a short guide into the specialties of the museum by Norbert Vávra. After the museum we visited a famous quarry in Zogelsdorf where Norbert told us about the locality before we visited another museum, the World of Fossils where we were given an unforgettable guided tour highlighted by a huge fossil oyster reef. At the end of the day we went to a classical Viennese institution, the Heuriger.

On the last day, I gave a short tour through the inner city and explained a little bit the history of the city. Our last stop was at the Natural History Museum of Vienna where the Nesrine Akkari, the curator of the myriapod collection, gave us a tour through parts of the scientific collection. Afterwards the meeting concluded with everyone able to look at the normal exhibition of the museum.

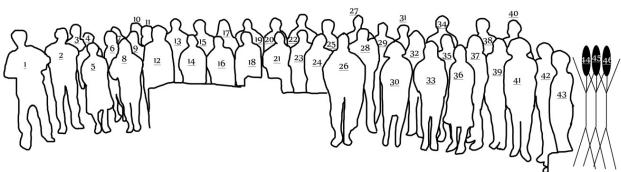
Three best student presentations were awarded:
The best poster prize was given to Karine Nascimento,
The best two talks were given to Uliana Nekliudova and Vanessa Yepes Narvaez.

The meeting was a big success with a very interesting scientific as well as cultural program. I thank everyone who joined the meeting for making this meeting the success it was and particularly also our secretaries Anita Morth and Doris Nemeth as well my students Nati Gawin, Hannah Schmidbaur, Philipp Pröts and Sebastian Decker for their help during the meeting.

Also, thanks to VWR, Lactan, Optoteam, Olympus, Springer and Christine Gröpl for their financial support.

Unfortunately the group photo didn't turn out too well, but I made a short, classical legend to identify everyone.





1 – Joachim Scholz, 2 – Piotr Kuklinski, 3 – Jonas Solnørdal Nærø, 4 – Olga Kotenko, 5 – Jo Porter, 6 – Uliana Nekliudova, 7 – Sandra Huber, 8 – Urszula Hara, 9 - Eva Ježková, 10 – Christoph Neu, 11 – Heather Grant, 12 – Norbert Vávra, 13 – Patrick Wyse Jackson, 14 – Marianne Nilsen Haugen, 15 – Steven Hageman, 16 – Abby Smith, 17 – Andrea Waeschenbach, 18 – Caroline Buttler, 19 – Javier Souto, 20 – Paul Taylor, 21 – Hannah Schmidbaur, 22 – Mark Wilson, 23 – Mary Spencer Jones, 24 – Natalie Gawin, 25 – Thomas Schwaha, 26 – Philipp Pröts, 27 – Sebastian Decker, 28 – Ernie Gilmour, 29 – Björn Berning, 30 – Antonietta Rosso, 31 – Tim Wood, 32 – Emmy Wöss, 33 – Emanuela Di Martino, 34 – Hans Arne Nakrem, 35 – Blanca Figuerola, 36 – Lee Hsiang Liow, 37 – Karine Nascimento, 38 – Andrey Ernst, 39 - Vanessa Yepes Narvaez, 40 – Oscar Reverter Gil, 41 – Noga Sokolover, 42 – Chiara Lombardi, 43 – Helen Jenkins, 44 – Andrey Ostrovsky (not in the picture), 45 – Elena Belikova (not in the picture), 46 – Silviu Martha (not in the picture).



ARTICLES

SPRING FLING AT WOOSUK UNIVERSITY — KOREAN BRYOZOAN RESEARCH CONTINUES TO BLOSSOM

By Ji Eun Seo, Dennis Gordon, Kamil Zágoršek, and Judy Winston Woosuk University, Jincheon, Korea; NIWA, Wellington, New Zealand, Technical University Liberec, Czechia; Smithsonian Marine Station, Fort Pierce, Florida

Ji-Eun Seo's Marine Bryozoans Resources Bank at Woosuk University in Jincheon, Korea recently hosted three overseas bryozoologists who are collaborating with Ji-Eun and her students in research on Korean bryozoans, fossil and Recent. They and the graduate and undergraduate students of bryozoans in the Department of Eco-Biological Science took part in several field trips to the far north (Baengyneong Island), the far south (Jeju Island) and sites on both the east and west coasts of the ROK to make marine and fossil bryozoan collections.

Based on his previous visit last August, Dennis chose to focus his month-long stay on the Cribrilinidae, which has not been formally reported in the Korean fauna. Eight species, one new to science, were recognized, belonging to the genera *Cribrilina* (1 species), *Puellina* (3), *Reginella* (2), *Jullienula* (1 new) and *Figularia* (1). Additionally, as Ji Eun noticed many years ago, Jeju Island, which is bathed in the warm waters of the Kuroshio and related current systems, is subjected to tropical and subtropical influences and the bryozoan fauna there is diverse, so another focus of Dennis's study was new generic records from Jeju Island and some coastal islands of Korea's South Sea. Based on these, 16 genera are newly reported for Korea, including an apparent new genus of Robertsonidridae. The other 15 new generic records comprise *Dibunostoma*, *Copidozoum*, *Corbulella*, *Onychocella*, *Reptadeonella*, *Schizosmittina*, *Stephanotheca*, *Saevitella*, *Bryopesanser*, *Calloporina*, *Hippaliosina*, *Torquatella*, *Stephanollona*, *Lifuella* and *Plesiocleidochasma*. These include 10 new species, mostly from one locality (Seogwipo) on the south coast of Jeju Island, where doctoral student Yang Ho Jin is conducting his research. Here, at 20 m depth, bryozoans are abundant on shells of two species of oyster. Two papers are being prepared for submission to *Zootaxa*.

Judy Winston visited Woosuk from May 1st to June 29th. Her focus was the taxonomy of the ctenostomes collected, demonstrating methods of studying living animals with photomicroscopy and video to show characters of polypide morphology and reproductive mode that are difficult or impossible to determine in preserved material. Dennis had discovered ctenostome borings in some of the shells he examined in MBRBK collections on his last visit, and additional colonies were found in shells from the collections made this time at Cheongopodae. SEMs of resin casts of the zooids and stolons have provided material for describing those species. Judy is working on a manuscript on the ctenostomes found. She also presented a talk about Korean ctenostome taxonomy. It was Judy's first visit to Korea and she sends "Komapsumnida" – a heartfelt thank you-- to Ji-Eun and her students, Yang Ho Jin, Chae Hyeon Sook, Noh Geonwoo, Lee Seunghyun, and Eom Tae Yang for showing us Korean culture and history, while making sure we didn't miss any Korean culinary delicacies during our searches for bryozoans.

Kamil Zágoršek was in Woosuk University from May 23rd to June 23rd; this was his third visit. Besides the bryozoans from the fossil Seogwipo section (Jeju Island), which he found last year, he hoped to find fossil bryozoans also on the East coast of the Korean Peninsula. The group visited two sections, one on the slope of Mt Cheolamsan, the second around the city of Pohang. Unfortunately, neither site yielded bryozoans. The Tertiary sequences in Mt Cheolamsan lack calcitic fossils (all fossils are preserved as steinkerns only). Some traces of one possible bryozoan colony were found, but recrystallization had destroyed any structures which would have proven it to be bryozoan. Anyway, the view from the top of the hill was wonderful!

The claystone around Pohang city contains many pectinids and thin shelled bivalves as well as gastropods. After checking more than a hundred shells, only serpulids, forams and perhaps also barnacles were found, but no bryozoans. Therefore, the only known fossil bryozoans from Korea are still those from the Seogwipo section on Jeju Island. The sequence is Pleistocene in age and consists of layers of fine- to coarse-grained sandstone with numerous shell fragments, mainly pectinid. Almost all bryozoans found are encrusting, along with fenestrate fragments and *Cellaria* internodes. The 34 species found so far are being determined and prepared for detailed description.

The intertidal zone at Cheongpodae beach is very rich in bryozoans. Plenty of cheilostomes, a few ctenostomes, and also a few cyclostomes were found during two visits to this famous beach. A new species of tubuliporid was found, with lobate colonies and extended gonozooecia bearing a long ooeciostome with a small, circular ooeciopore. The specific shape of the ooeciostome and ooeciopore may indicate a new tubuliporine genus related to *Entalophoroecia* Harmelin, 1974. A few of these colonies were collected alive, so we were able to see the feeding zooids and study the tentacles. Each living zooid has 10 tentacles with a strongly pigmented distal part.

The overseas participants greatly enjoyed working with long-time colleagues and new recruits. We all are most grateful to the grant from the National Institute of Biological Resources (NIBR) funded by the Ministry of Environment of the Republic of Korea (201722202) and the Marine Biotechnology Program funded by the Ministry of Oceans and Fisheries of Korean Government (Marine Bryozoans Resource Bank of Korea—MBRBK).



Seafood lunch after low tide collecting at Cheonpodae beach, West Sea. Kamil, Judy, Dennis, Ji-Eun, and graduate student, Chae, Hyeon Sook.



Kamil, student Lee Seunghyun, and Ji-Eun collecting bryozoans from an East Sea panel.



Students, Noh Geonwoo, Lee Seunghyun, and Yang Ho Jin collectng bryozoans caught in a fisherman's nets, Tadae Port, East Sea.



Judy, Ji-Eun and Dennis collecting at base of famous cliffs at Baegnyeong Island, West Sea.



UPDATE ON THE BRYOZOA WEBSITE

Phil Bock

You may have noticed species lists for some genera are getting sequence numbers. I am working alphabetically, and am working on the "H's" at present. This is being done to harmonise the web pages with my database files. Many species names are considered to be unsolved problems at present. At the same time, I am harmonising the species in the World Register of Marine Species and adding links from my entries to the WoRMS database. A further aim is to improve the estimate of species diversity. You can find current estimates at http://bryozoa.net/diversity.html

This leads me to the one of the issues that I have left to one side for far too long. I would like a (reasonably) consistent systematics of the Stenolaemata. This encompasses some quite diverse views. I would ideally like to present the current alternatives - with appropriate citation and some explanations. At the moment, I am not doing much to add illustrations for species, or hunting the best current links to website with valuable data. One of the tables I have started is a link from a species name to the URL of external sites. A Google search for images gives some very heterogeneous results!

The story of my collection of PDF's is complicated. The website (bryozoa.net) was originally hosted by a firm called "Unlimited Space" - which I used to store many PDF's. After that firm was bought out by another, I now have a limit of 2 Gb, which is not enough (I need at least 30). I have a Dropbox account, where I have paid for more storage, but I have heard that this is not accessible for anyone who does not wish to pay their fees for the paid service! I also set up the files on "mega.nz" - but I would like to hear about alternative cloud or sharing services.

Recent scan completion. I have prepared a PDF of Harmer (1957) on the Siboga bryozoans (Part 4). Let me know if you would like a copy! There are copies of 1915 and 1926 volumes (1926 poor quality), but the 1934 appears to be lacking! I am now working on Hayward (1995) - Antarctic Cheilostomatous Bryozoa.

Recent book purchase - Xiao Fengsheng (2014). Trepostome Bryozoans of China (401 pp.) I will be working through this for taxonomic changes. I don't need to retain the book, so let me know if you would like me to send it to you later.

I have Pat Cook's library in my garage at present. Her wish was for it to go to Museum Victoria - but they are not very enthusiastic about keeping large amounts. Ask me by email if you think there might be a volume that you could use!

Finally, I am still hoping for volunteers to consider inheriting the continuing tasks. The WoRMS needs one or more additional editors. I would like someone to take on responsibility for looking after the database(s), and also we should consider the ongoing future of the website. I am not yet stopping work, but we must do some succession planning!!

As I am hoping for successors to start learning the duties of an editor in WoRMS, a notice of possible funding for a workshop is timely. The support is available for the timeframe November 6th 2017 until May 31st 2018, so unfortunately could not be held around the time of the next IBA Conference in 2019.

Let me know if anyone is interested in participating - I guess in Oostende, time to be negotiated.

http://www.marinespecies.org/news.php?p=show&id=5016

HEINRICH RISTEDT

2 March 1936 - 1 June 2017

On June 1st 2017, Heinrich Ristedt, Professor of Geology and Paleontology at Bonn University (Germany), died at the age of 81.

Heinrich Ristedt was born on March 2nd in Milow, in the district of Uckermark/ Mecklenburg Vorpommern, in Northern Germany. In 1956 Ristedt enrolled at the Humboldt-University if Berlin, studying Geology and Paleontology. 1958 he changed to the University of Bonn, the former German capital to study geology and paleontology supervised by Roland Brinkmann and Heinrich K. Erben. In Bonn 1963, Ristedt was awarded a doctorate (Dr. rer. nat.) for his research on Michelinoceratidae and Paraphragmitidae (Nautiloidea) from the Silurian of the Carnic Alps and South-France.

Until the year of 1967, Ristedt worked as scientific assistant at the Geological Institute of the Rheinisch Friedrich-Wilhelm Universität in Bonn. Afterwards, he transferred for a year to Harvard University, Cambridge USA where he became an Associate of Invertebrate Paleontology. 1970 he received from the German Research Foundation (DFG) a grant for two years for his habilitation thesis on "Vergleichende feinstrukturelle und biochemische Untersuchungen an taxonomisch wichtigen Merkmalen nautiloider Cephalopoden." For his research he received an award from the University of Bonn. For two subsequent years, Heinrich Ristedt became a project leader and lecturer at the University of Kabul/Afghanistan. At the end of 1972 he returned as a lecturer to the Geological Institute in Bonn. In 1987 Heinrich Ristedt was appointed Professor at the University of Bonn and retired from active work 2001.

From 1990 onwards, he edited together with Heinrich K. Erben and Gero Hillmer the "Haeckel-Bücherei", a series of natural science books of the Ferdinand Enke Verlag Stuttgart. Single monographic volumes e.g. on "Evolution", "Ammonoideen", "Reptiles", and "Ostracods". A volume on bryozoans was intended but never realized.

Heinrich Ristedt as a bryozoologist

In the late 1970's, Heinrich Ristedt became interested in recent bryozoans. Experienced in biomineralization already due to his study on nautiloids, he started to conduct a study on the skeletal microstructure of some recent species of *Membranipora*. Subsequently, he published e.g. on Philippine bryozoans and specimens from other Indopacific regions. His final studies where dedicated to Antarctic Bryozoans (Moyano & Ristedt, 2000). Accordingly, for about 20 years, Heinrich Ristedt was dedicating most of his time to bryozoans.

During his sabbatical (1989) he started together with his wife Brigitte an extensive, private paid Collection-Tour in Indonesia, Malaysia, Australia and South-Sea. Later he always used his holidays and nearly all his free time to collect bryozoans and concentrated on the Mediterranean. Most of the material was carefully arranged and determined, scanned and attached to matchboxes that in turn are deposited in specially designed collection boxes. In our Senckenberg collection, we call the "Ristedt Standard", applying it to the Voigt collection as well.

In 2016 Kei Matsuyama, Silviu O. Martha, J. Scholz and G. Hillmer dedicated to Heinrich Ristedt the new genus and species of cheilostomatous Bryozoa *Ristedtia vestiflua* n. gen. et sp. from an Arctic seamount in the central Greenland Sea – a birthday gift in acknowledgement of his contributions to bryozoology and his privately funded bryozoan collection. When the Senckenberg bryozoan research section was founded in 1999, Heinrich Ristedt gave most of his privately funded bryozoan collection as a gift. The Ristedt collection is thus housed at the Senckenberg Research Institute (Frankfurt am Main, Germany), and most of 12,000 specimens are accessible in the internet (http://sesam.senckenberg.de/).

Ristedt attended several IBA- Conferences. The last conferences he visited were in Wellington (1995) and Panama City (1998). From 2001 and for the years thereafter, Heinrich Ristedt withdrew completely from science, dedicated himself to his family, and to his artistic craftwork. His paper where not numerous, but served as a model for excellent structure, and painstaking observation. His extensive collection of Recent bryozoans, most of them cheilostomes, will form a lasting legacy for future generations of bryozoologists.

Photo 1 Portrait of Heinrich Ristedt carrying a crown of bryozoans. Looking at his perfectly structured papers and collections, one would never guess that Heinrich Ristedt was actually a cheerful man, who, like many true professionals, frequently stated that he did not take life too seriously.

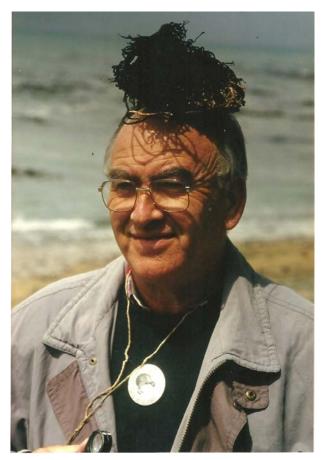




Photo 2: The "Ristedt Standard" in collections.

Gero Hillmer Joachim Scholz

SUMMER SCHOOL ON AQUATIC COLONIAL INVERTEBRATES (BRYOZOA)

White Sea Biological Station of the St Petersburg State University Kandalaksha Bay, White Sea August 2018

Preliminary programme:

Lectures

Morphology & anatomy of Gymnolaemata
Morphology & anatomy of Phylactolaemata
Morphology & anatomy of Stenolaemata
Bryozoan polymorphism
Bryozoan skeleton
Bryozoan sexual reproduction
Bryozoan asexual reproduction
Larval diversity: anatomy, ultrastructure & metamorphosis
Bryozoan ecology
Bryozoan evolution
Bryozoan taxonomy & phylogeny
Bryozoan feeding behaviour

Laboratory classes (identification and observations on live material) & field collecting (dredging)

Boat excursions (3, 2 half-day, 1 full day)

Staff

Shunatova, Ostrovsky, Kotenko, Tamberg, Matvienko Taylor, Schwaha, Kuklinski, Berning, Waeschenbach, Porter

Students

8-15

Duration

15 days (including arrival & departure)

Preliminary costs

Train St Petersburg-White Sea and back (100-200 Euros) Living costs & meals & boat excursions (600-700 Euros)

contact
Andrey Ostrovsky
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MEETINGS AND CONFERENCES

Proceedings of the 17th International Bryozoology Association Conference.

Final editing of the conference volume is expected to be completed shortly and the conference volume will be published as Australasian Palaeontological Memoirs vol XX, pp. xx–xx.

Final publication is expected by the end of 2017

Rolf Schmidt, Catherine Reid, Dennis Gordon



RECENT PUBLICATIONS

The following list includes bryozoan related works either published since the previous issue of the *IBA Bulletin* as sent in to the editor. As always, members are encouraged to support future compilations by continuing to send complete citations to the IBA secretary at any time. Accuracy of your citation is assured if sent in bibliographic format, if redrafting is required by the editor accuracy is not guaranteed! Reprints will be gratefully received by the IBA archivist, Mary Spencer Jones.

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- Guido A., Jmenez C., Achilleos K., Rosso A., Sanfilippo R., Hadjioannou L., Russo F., Mastandrea A. 2017. Geomicrobiology of the Kakoskali submarine cave (Ciprus, Eastern Mediterranean). Facies, 63:21, DOI 10.1007/s10347-017-0502-3.
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- Kutyumov V.A., Maltseva A.L., Kotenko O.N., Ostrovsky A.N. 2016. Functional differentiation in bryozoan colony: a proteomic analysis. Tsytologija 58(1): 60-66 [in Russian]; Cell and Tissue Biology 10(2): 152-159 [in English]. DOI: 10.1134/S1990519X16020073
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- Ramalho, Laís V., Távora, Vladimir A., and Zagorsek, Kamil. 2017. New records of the bryozoan Metrarabdotos from the Pirabas Formation (Lower Miocene), Pará State, Brazil. Palaeontologia Electronica 20.2.32A: 1-11 palaeoelectronica.org/content/2017/1915-metrarabdotos-from-pirabas
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- Sanfilippo R., Rosso A. Reitano A., Insacco G. 2017. First record of polychaete sabellids and serpulids from the Permian of Sicily. Acta Paleontologica Polonica, 62(1): 25-38.

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