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Comments regarding this Bulletin should be addressed to the IBA Secretary: catherine.reid@canterbury.ac.nz

Copies of the Bulletin are archived at the Natural History Museum London.

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

IBA COUNCIL NEWS

2022 INTERNATIONAL BRYOZOOLOGY ASSOCIATION TRAVEL AWARDS

The bulk of the IBA funds are spent on funding bryozoan research and travel to IBA meetings. The IBA Council is delighted to announce six awardees for 2022.

Lara Baptista	Austria
Melissa Boonzaaier-Davids	South Africa
Tyler Feary	New Zealand
Chihiro Kubo	Japan
Hannah Lee	USA
Sheena Stephens	USA

IBA DONATIONS

I know what you're thinking! You're wondering if you've donated to the IBA recently.

The answer is likely to be "no"! We have almost 300 members listed in our address list. In the 2019-2022 financial period we received 33 donations, and in Dublin we received donations from 13 members. If all our members gave us ten USD or Euros (\$18 NZD), we would be in good shape for the next conference. We hope our employed members can be more generous. We are able to provide decent-sized student awards only if our members donate, however little, to the IBA.

You can get the form on the IBA website:

www.bryozoa.net/iba/membership.html (or attached to the newsletter email)



ELLIS MEDAL AWARDS FOR 2022



Congratulations to **Tim Wood** and **Paul Taylor** for their well-deserved award of the IBA Ellis Medal for 2022. Paul Taylor was phoned during the announcement and was very honoured by the award. Tim Wood was not at the meeting but sent this message -

Dear IBA Members: I am deeply honored to have received an Ellis Award at this year's conference. It seems a bit awkward not to have been present at the time. My excuse is that Beth Okamura and I were taking advantage of a rare opportunity to study freshwater bryozoans deep in the Amazon basin and later in the southern Pantanal. We expect to have substantial findings to report in due course. In the meantime, many thanks for this valued and completely unexpected award.

The 2022 General Business Meeting minutes and Treasurer's Report were sent in the same email as this newsletter

STUDENT PRESENTATION AWARDS

There was a large cohort of students at the Dublin meeting and all gave great talks, both in-person and online. The judges, Antonietta Rosso, Juan Suárez Andrés and Catherine Reid did not have an easy time of it. Rather than a best talk and best poster award they decided on a best PhD student and best MSc or BSc student talk.

CONGRATULATIONS to

Best PhD talk – Lara Baptista

Runner-up PhD talk – Julian Bibermaier

Highly commended – Sebastian Decker and Sarah Leventhal (online presentation)

Best MSc talk – Sheena Stephens

Runner-up MSc – Ismael Chowdhury

Highly commended – Jason Lopiccola and Tyler Feary



Left to right top row – Lara Baptista, Julian Bibermaier and Sebastian Decker receive their awards from IBA President Antonietta Rosso (Sarah Leventhal absent). Left to right bottom row – Sheena Stephens, Ismael Chowdhury and Tyler Feary (Jason Lopiccolo absent). Photo compilation from Abby Smith

NEW MEMBERS

Titouan SEIMANDI is a student in the Master of Environmental Management and Coastal Ecology at the University of La Rochelle. Born in Marseille, in the south of France, and having a scientific diving certification, he is very familiar with the Mediterranean biodiversity. After an unlikely meeting 3 years ago with Björn BERNING (then researcher at the Upper Austrian National Museum) he decided to dive into the fascinating world of bryozoans by taking part this year, thanks to the investment of Lara BAPTISTA (PhD student at the Biodiversity and Genetic Resources Research Centre), in a research project on the morphological and genetic diversity of shallow-water bryozoans on algal substrates in the Azores (central North Atlantic).

NEWS FROM THE MEMBERSHIP

Zoya Tolokonnikova – Research of Early Permian bryozoans from South Urals are started in April-May 2022. I and my students (Dar'ya Michnenko and Alisa Ischenko) found in Shakhtau quarry, Toratau, Kushtau and Yraktau mountains (Bashkiria, Russia) of abundant bryozoan colonies with different defensive structures. Our work is supported by the Russian Science Fund (22-27-0030).

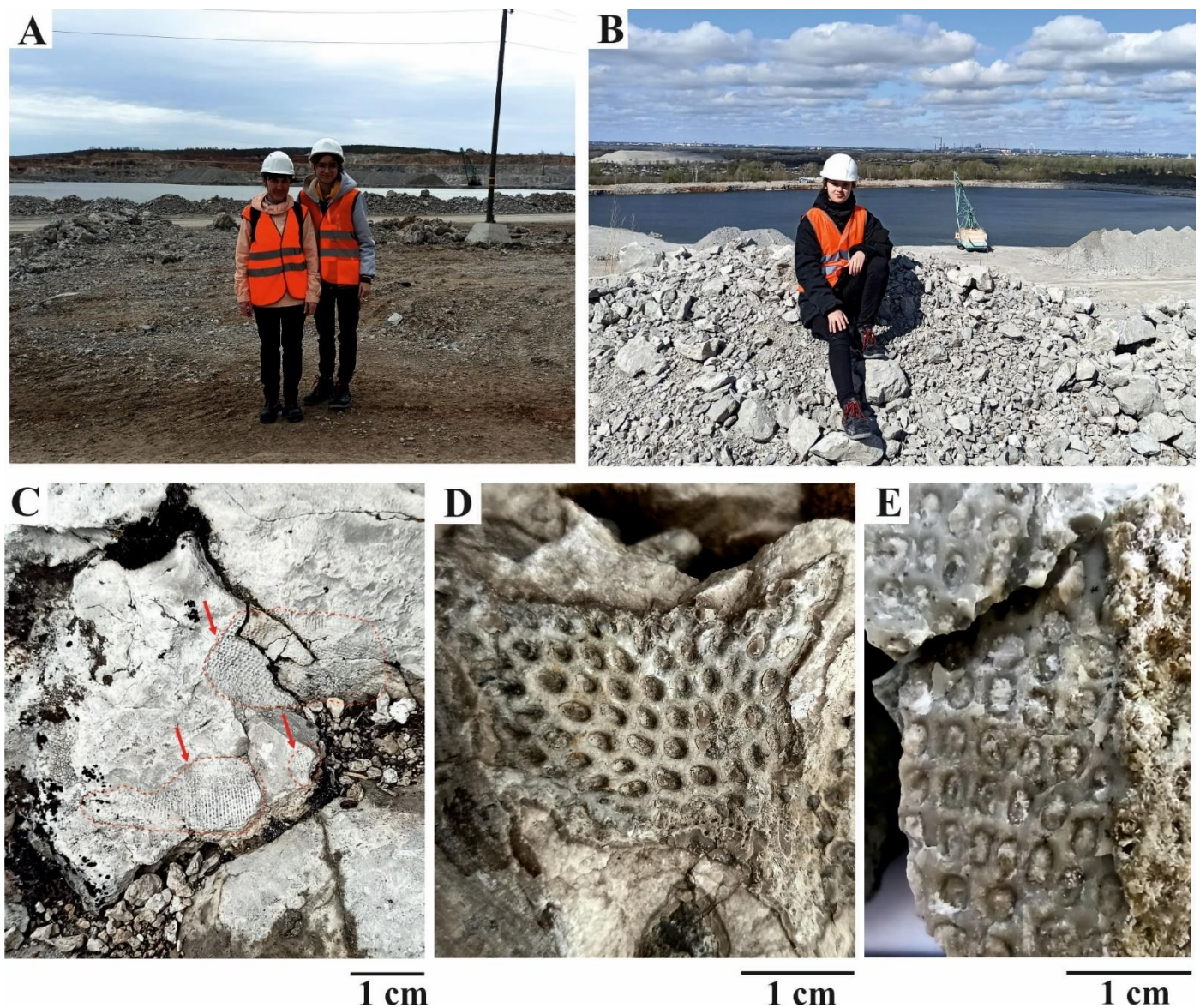


Figure: A – Tolokonnikova Z. (left) and Mikhnenko D. (right) on the Shakhtau quarry, B – Ischenko A. on the Shakhtau quarry, C – fragments of bryozoan colonies in limestone (Sakmar, Permian) on the top of Toratau, D – fenestrate from south-western part of Shakhtau quarry, E – fenestrate from south slope of Kushtau

Björn Berning. My stint at the Upper Austrian State Museum in Linz comes to an end! I've quit the job as I've recently inherited a house in Hamburg, so will be moving back to my hometown. Also, the general situation at the museum became worse and worse over the years, so I thought it's time to move on to do something less nerve-wrecking. I will certainly be associated with the University of Hamburg again in some way, we'll see how things go. First, however, I will certainly enjoy some time of joblessness after many years of intense work...

Please use my private Email-address for communication from now on and until further notice: berningb@gmx.de

As we have one or two guest rooms available, I look forward to hosting many mini-Larwoods in Hamburg!

Despite various Covid-related hurdles, the first edition and test run of the **Azores Summer School in Marine Island (Palaeo)Biogeography** took place on the beautiful island of Santa Maria in July (<https://azss.uac.pt/en/>). Organised by **Sérgio Ávila** and his team from the University of the Azores, the 11-day workshop aims at furnishing students with state-of-the-art knowledge on the geology, biogeography and ecology of oceanic islands and seamounts. Interdisciplinary lectures and field trips around the island are combined to provide a comprehensive understanding of these fascinating laboratories of evolution. **Andrea Waeschenbach** and **Björn Berning** gave lectures on "Speciation in the Marine Realm" and "Bryozoa in Islands and Seamounts", respectively. **Lara Baptista** and **Tito Seimandi** made use of the free days to sample bryozoan material for their projects. Needless to say, the four of us did get to share a beer or two in the evenings, and Andrea even used the opportunity to test her tent in one of the scenic campgrounds. Anyone interested in participating in the summer school next year should keep their eyes open. We will advertise it in this very magazine as soon as circumstances caused by Covid and other, ehm, stupid special operations allow fixing a schedule...



Left - Tito, Björn and Andrea enjoying a boat ride to one of the outcrops around the island of Santa Maria. Right - Lara and Tito participating in the post-sampling and -sorting evening seminar.

Andrey Ostrovsky - My web-page on the tropical bryozoans (Red Sea, Oman, Maldives) kept at the Dept of Palaeontology, Geozentrum, University of Vienna, changed its server.

For those who wants to work with my images, please, use

https://bryozoancollection.univie.ac.at/Sammlung/Bryozoa/Safaga_Bay/Safaga_Bay.html

ARTICLES

RECORDING NEW SPECIES IN INDIA

Tim Wood

In July this year I spent two weeks in Kolkata updating the freshwater Bryozoa collection at the Zoological Survey of India. This organization was founded around 1905 by Nelson Annandale, the first Director of the Indian Museum. During his brief career Dr. Annandale described many Indian species, including a number of phylactolaemate bryozoans.

At the ZSI I shared the spacious office of my host, Dr. N. Marimuthu. After examining hundreds of species I identified five that were new to science. This turned out to be a very Big Deal, and on the afternoon of my final day we were ready to formally record these species in the collection. Normally this would just mean entering information into a database, but not here.

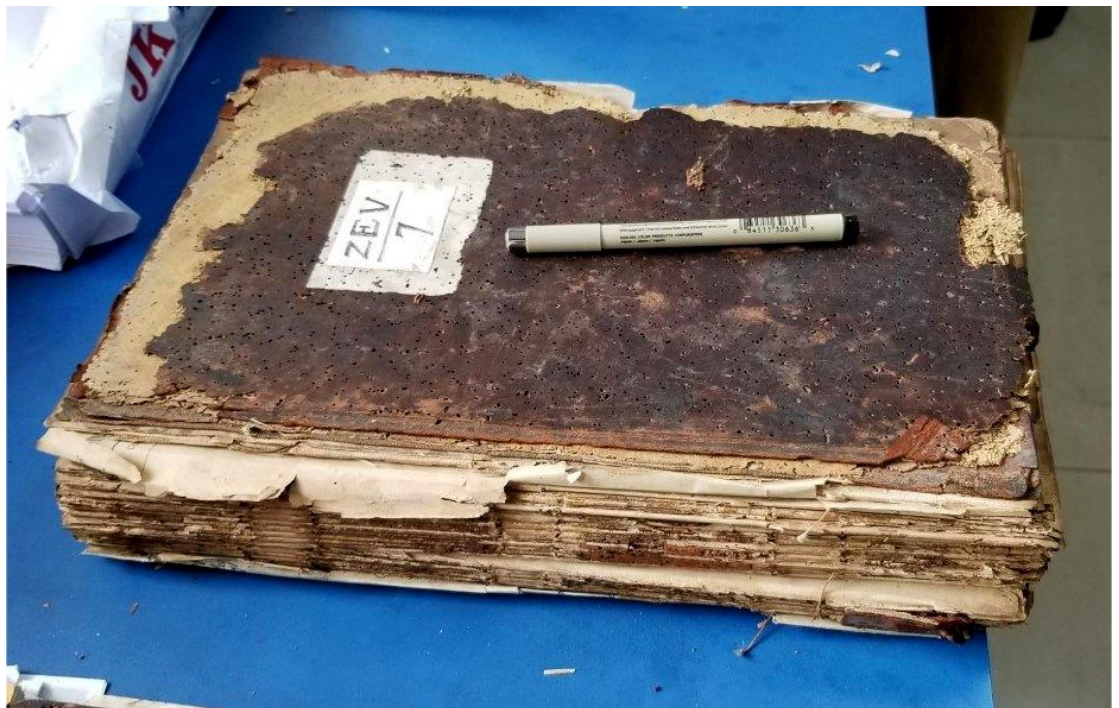
First, a taxonomist who works on freshwater sponges, Dr. C.K. Mandal, enters the room with a thick, ancient ledger, formerly leather-bound, now hardly bound at all and with only remnants of leather remaining. In fact, the leather cover isn't even attached, but just lying loosely on top (see photo). Apparently, Dr. Mandal is the only person authorized to make new entries.

The ledger is placed on a small table in a far corner of the office which has been cleared for the occasion. Dr. Mandal sits down and carefully opens it to the proper page, essentially lifting sections of detached pages and carefully turning them over until reaching a page for new entries. Then from his desk across the room Dr. Marimuthu dictates the new species names, spelling them letter by letter, while Dr. Mandal records them in the ledger: place of collection, name and date of collector, etc.

I'm thinking, isn't there a better way? But this is not about efficiency. It's about tradition.

After all the data are recorded Dr. Mandal carefully closes the ledger and goes over to consult with Dr. Marimuthu while I surreptitiously take photos of the remarkable volume. It is full of tiny holes made by worms or insects or something that thrive in this tropical environment. The letters on the front, "ZEV" stand for Zoologia Evertebrata, a designation created by Nelson Annandale himself, and I suddenly realize this must be his own original record of species dating from over 100 years ago.

In the past 30 years I have visited India three times, and I still encounter unexpected ways things are done. Details of the new species will soon be published, but for me, having the names recorded in Nelson Annandale's ancient ledger was amusing, surprising, and frankly very humbling.



DEEP-SEA BRYOZOAN OBSERVATIONS CONTRIBUTE TO MPA CREATION IN THE COLOMBIAN PACIFIC

Vanessa Yepes-Narváez

The United Nations Convention on Biological Diversity (CBD) in 2021 set the international world conservation strategy 30x30 that urges nations to protect 30 percent of the world's terrestrial and marine habitats by 2030. The Colombian government in October 2021, took the bold decision to achieve this goal by August 2022.

With this objective, from March to April this year a group of 29 expeditioners belonging to several research institutions departed from Cartagena, Colombia on board the “Raleigh B” and crossed the Panamá Canal to explore the seamounts of the “North Pacific Basin” in the Colombian Pacific between 1800 and 3000+ meters depth, the objective was to use technology to perform line-base inventories of the area and evaluate its potential as a marine protected area (MPA).

A Comanche ROV system operated by Seatrepid International, Fugro and Invemar, was used to map the biodiversity associated with those geographical formations. Our first conclusion was that invertebrate diversity was very high in the zone mostly dominated by sea cucumbers and starfishes in all soft bottom environments but, when the landscape turned rocky (originated by volcanic action) the highest abundance of filter-feeder taxa was observed mainly by barnacles, ascidians, crinoids, bivalves, sponges and bryozoans. The manoeuvres offshore did not allow to collect biological samples, therefore, all the evidence was captured with over 24 hours of ROV videos and high definition imaging.

From the images obtained, 22 colonies of branching bryozoans were evidenced in 7 videos between 1832- and 1836-metres depth. The observed colonies belong to the Cheilostomatida class and were grouped into two families and one undefined taxon due to the complexity of bryozoan taxonomy. For instance, the morphological identifications were presented as morphospecies at the level of phylum (1) family (2) genus (2) and possible species (1) based on available literature from the deep-sea Tropical Eastern Pacific.

Within the family level, two morphospecies belong to Tessaradomidae with resemblance to the genus *Smithsonius* Gordon, 1988, which to date only presents three recent species and one fossil, all distributed in the Central Pacific, *S. striatus* (Canu & Bassler, 1930) found at the Albatross Station D3408 (0°12'30" N, 90°32'30"W) at 1251 m depth off the Galapagos Islands; *S. bifax* (Cheetham, 1972) belonging to the Upper Eocene (Tertiary) considered an important representative of the deep-sea benthic megafauna of the time; *S. quadratus* (Grischenko et al., 2019) recorded in the Kuril-Kamchatka Trench in the northwest Pacific at an impressive depth between 7241 and 7245 metres; and *Smithsonius dorothea* (Winston & Beaulieu, 1999) reported between 4060 and 4100 metres depth in offshore central California (34°38'–34°56'N, 122°59'–123°15'W), we believe our samples have strong affinities to *S. dorothea* described by Burton & Lundsten, (2008) from the MBARI, due to the characteristic branching type, colour and substrate association, however, future sampling is necessary to confirm its identification and for instance it was registered as *Smithsonius aff dorothea* (Figure 1). The second morphospecies found has affinities to the descriptions of *S. striatus* in terms of the type of growth, size and shape of the colonies observed.

One morphospecies had strong resemblance to Bugulidae family specifically to Hayward (1981)'s description of *Bugula protensa*, however, the resolution of the images for these smaller organisms did not allowed the observations of key characters and therefore it was presented as *Bugula* sp. Although the record of Bugulidae species in the North Pacific Basin is not new, it is the first time that images of specimens with a similar appearance have been obtained from the area at those depths, which is a positive advance towards the re-description of this species and the geographical and bathymetric expansion of the Bugulids records in the Colombian Pacific.

Finally, due to its small size and low-resolution zoomed images, one morphospecies was identified at the phylum level, however, the type of growth and shape have affinities to those presented by the Candidae family, specifically to the genus *Notoplites* and has similar appearances to the images of this genus recorded by Amón et al. (2017) in the deep-sea Clarion-Clipperton Zone (CCZ).

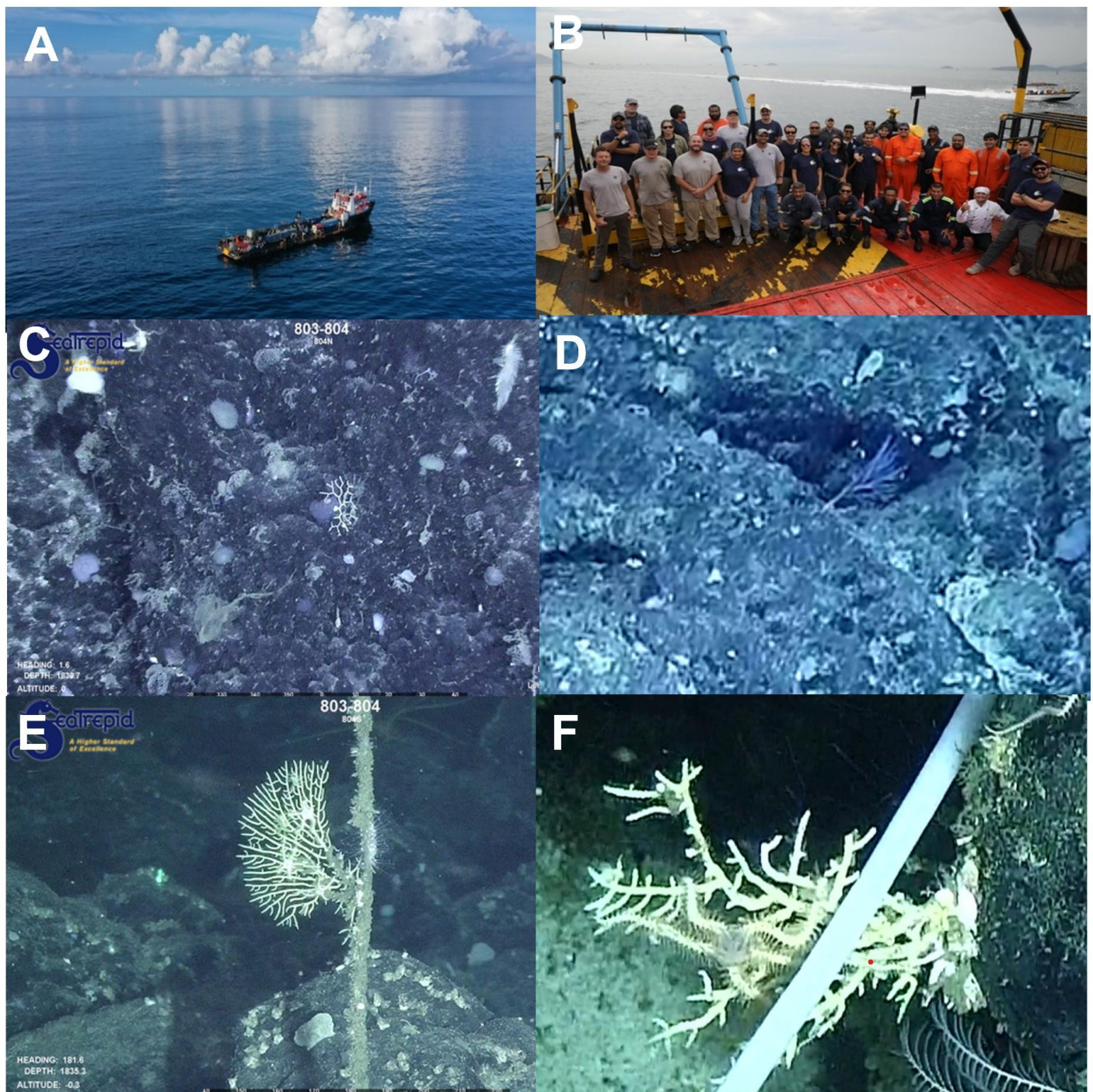


Figure 1. **A.** Expedition on board the Raleigh B in the North Pacific basin. **B.** Researchers and crew members after concluding the expedition in Balboa prior crossing the Panamá Canal. **C.** Bryozoan morph 1. **D.** Bryozoan morph 2. *Bugula* sp. **E-F.** Colony of *S. aff dorothea*. Picture credits: Invemar, 2022.

The results obtained from this expedition were validated by the National science academy (highest academic authority) and by several local stakeholders and together decided the area has the ecological and economical attributes to be protected (Invemar, 2022). Therefore, on June 28th through resolution 0671 it was declared as “National District of integrated management Colinas y Lomas” with an extension of 2.761.115 ha. Further expeditions and sampling to the area are being planned for 2023. The process from planning, sampling and declaring the MPA was presented to the bigger audience through a video documentary found at <https://youtu.be/jKyUQWFATUI>

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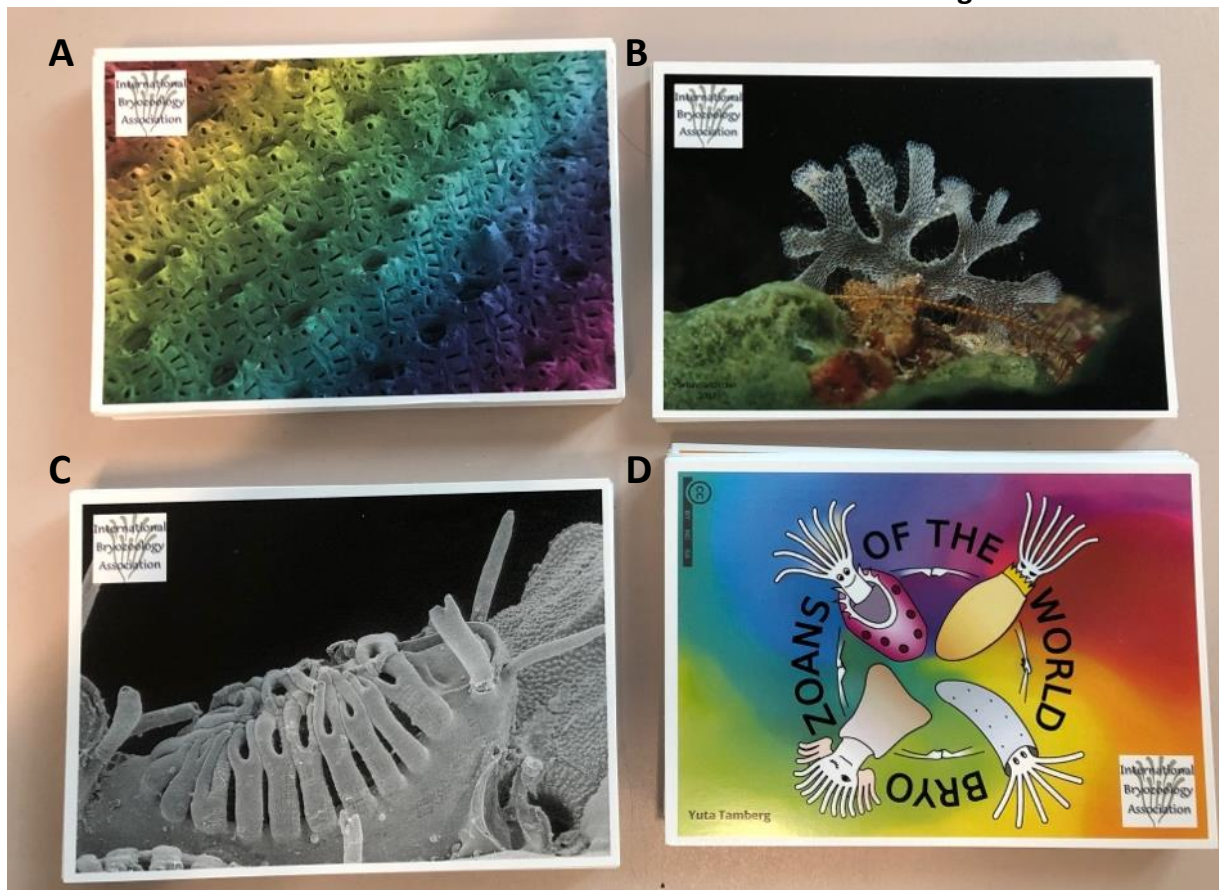
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FUNDRAISING

INTRODUCING THE BRYO-STORE

Normally the IBA does art & craft fundraising in person at the triennial conference, but since so many people are attending virtually nowadays, we wanted to make our fabulous Bryo-Merchandise available to all. *All money raised goes straight into the IBA accounts.*

The 2022 Edition of IBA Postcards -- Four fabulous designs



- A. *Bosytrychopora dentata* with rainbow highlighting, by Abby Smith
- B. Flustrid bryozoan from Red Sea, Egypt, by Sebastian Decker
- C. *Klugerella antarctica* taking a rest, by Hans de Blauwe
- D. Bryozoans of the World logo from 2021 Larwood/Australarwood, by Yuta Tamberg

One card (your choice)	1 Euro	\$1 USD	\$1.50 NZD
Four cards (one of each design)	3.50 Euro	\$3.50 USD	\$5.50 NZD
Ten cards (your choice)	8 Euro	\$8 USD	\$13.00 NZD

Kate Steed's Bryozoan Art Postcards



A. Rainbow circle B. Archimedes

One card (your choice)	Four cards (two of each)	Ten cards (your choice)
1.50 Euro	5 Euro	10 Euro
\$1.50 USD	\$5 USD	\$10 USD
\$2.25 NZD	\$8.00 NZD	\$16.00 NZD



Stick-On Temporary Tattoos

Logo Designed by Katie Wyse Jackson, tattoos produced by Judith Winston
The tattoo is 4x6 cm in size.

Two tattoos	1 Euro	\$1 USD	\$1.50 NZD
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Bryo-Hat Knitting Pattern

Caroline Buttler's knitted hats are famous among IBAers – and now she has made her knitting pattern available! For only \$3 NZD (= 2 Euro = 2 USD) you can buy a PDF of the pattern, and make one yourself (or get your grandma to do it).



While you're at it, why not buy an extra copy of the...

Bryozoan Studies 2022 IBA Dublin Conference Volume

70 Euros, \$70 USD, \$115 NZD (postage included)

Note that delivery will not be until 2023.

Copies of *Annals of Bryozoology* 1 to 6 are available

Copies are available from Patrick Wyse Jackson (wysjcknp@tcd.ie) at no cost for purchase or postage. However, donations to the IBA in support of student travel grants are welcome.

You can always make a donation to the IBA

MOST OF THE WORK OF THE IBA IS CARRIED OUT ELECTRONICALLY, SO THE IBA HAS NO FORMAL MEMBERSHIP FEES. THE IBA COUNCIL MAKES AWARDS TO HELP SUPPORT CONFERENCE ATTENDANCE AND TRAVEL OF STUDENTS AND SCIENTISTS WITHOUT INSTITUTIONAL SUPPORT. IN 2019-2022, OVER 95% OF OUR EXPENDITURE WAS ON TRAVEL GRANTS, BRINGING FIVE PEOPLE TO THE IBA CONFERENCE WHO COULD NOT OTHERWISE ATTEND.

IN ORDER TO CONTINUE TO SUPPORT NEW BRYOZOOLOGISTS, THE IBA NEEDS YOUR DONATION.

Bryo-Store Order Form

IBA accounts are currently held in New Zealand. Please make your order in **New Zealand dollars** (check exchange rates on-line) using a credit card (Visa or Mastercard only), by filling out this form. We are no longer able to accept cheques.

Name	
Email Address	
Merchandise Order (list of things you want to order – please provide lots of detail)	
Merchandise amount	New Zealand Dollars
Conference Proceedings	New Zealand Dollars
Donation	New Zealand Dollars
Total	New Zealand Dollars

Card Type (tick one)	Visa ____ Mastercard ____
Card Number	
Expiry Date	
Cardholder's Name	

Please email your completed form to the IBA Treasurer at abby.smith@otago.ac.nz.

Or you can post it to Dr. Abigail Smith, Department of Marine Science, University of Otago, P.O. Box 56, Dunedin, New Zealand.

You will receive acknowledgement and receipt by email.

MEETING REPORT



THE 19TH TRIENNIAL CONFERENCE OF THE INTERNATIONAL BRYOZOOLOGY ASSOCIATION

Monday 22 August – Friday 26 August

This conference was scheduled to take place in Recife, Brasil thanks to a generous offer from Leandro Vieira. Unfortunately due to Covid restrictions, it was decided to move the conference to Houston, Texas, USA. Penny Morris stepped up and put together a proposal to host our conference there, but Covid restrictions were still too limiting. At the last minute, Patrick Wyse Jackson organized this conference in Dublin, Ireland thanks to the lifting of most Covid travel restrictions.

The conference was held between 22nd and 26th August in the Museum Building of Trinity College Dublin, an iconic Victorian building in which many examples of Irish decorative stone are used as columns in the entrance and main hallways. Four days of presentations were held. On Monday afternoon, the delegates visited the Book of Kells and the Long Room in Trinity's Old Library. The manuscript is the most important illuminated gospel known. On Tuesday evening, delegates met in Patrick's house for beer, wine, quiche and salads. Wednesday was set aside as the traditional mid-conference free day. Rather than participate on a set touristic visit, delegates undertook a range of activities that suited themselves: these included visiting a small island with a monastic site in north County Dublin, or walking a nineteenth century pier and enjoying ice cream at its seaward end. On Thursday, the conference dinner was held in an Indian restaurant in the city centre. During the meeting Abby Smith organised a sale of bryozoan-related arts and crafts which included some hats knitted by Caroline Buttler. Proceeds of this sale went to the IBA student award funds for future allocation.

In total 60 delegates drawn from 24 countries attended the meeting: 38 were in-person (63%) (Group photograph below) and 22 online (37%). Six accompanying members also attended. 54 presentations were delivered which comprised 46 talks (85%) and 8 posters (15%).

14 students participated in the meeting which was just under a quarter of the attendance. IBA travel awards totalling close to NZ\$6,500 were made to six students from five countries but unfortunately one was unable to travel at the last minute due to illness; his paper was presented by his co-author. This continued allocation of funds donated by IBA members to student travel awards is essential as it allowed these students to attend the meeting and to make highly valuable contributions and provided the opportunity for them to network with their peers and more experienced bryozoologists.

The conference logo was designed by Katie Wyse Jackson and featured an Irish harp in which the strings were represented by a lophophore.

The triennial IBA business meeting was presided over by Antonietta Rosso during which a number of deceased members were fondly remembered. Paul Taylor and Tim Wood were awarded Ellis Medals by the President, and Paul was reached by telephone in France during the meeting where the news was passed on to him. Later Tim emailed to express his gratitude. Student awards were made for PhD presentations to Lara Baptista, Julian Bibermair, Sebastian Decker and Sarah Leventhal and for MSc presentations to Sheena Stephens, Ismael Chowdhury, Jason Lopiccola and Tyler Feary.

Masato Hirose outlined details for the 20th triennial meeting which he proposed hosting in Japan, and his offer was enthusiastically accepted. Melissa Boonzaaijer-Davids and Sebastian Decker on behalf of Thomas Schawa gave brief presentations on Capetown and Roscoff, respectively, potential venues for the 2028 meeting. Details will be distributed for members to consider.

Towards the end of the meeting a presentation was made to Patrick for hosting the meeting and Antonietta Rosso passed her presidential role to Caroline Buttler. The 19th triennial meeting then ended.

Without doubt the importance of this meeting was in bringing members of the IBA family together for both scientific discussion and socialising. Following Covid this provided some normality to the IBA and set it up well for future activities.

Patrick Wyse Jackson & Marcus M. Key, Jr.



Delegates

Katerina Achilleos (Dunedin, New Zealand): online
 Lara Baptista (Azores, Portugal): in-person
 Julian Bibermaier (Vienna, Austria): in-person
 Melissa Boonzaaier-Davids (Cape Town, South Africa): in-person
 Klaus Breitenback (Frankfurt, Germany): in-person
 Caroline Buttler (Cardiff, Wales, UK): in-person
 Ismael A. Chowdhury (Anaheim, CA, USA): in-person
 Sean Craig (Arcata, CA, USA): in-person
 Hans De Blauwe (Dudzele, Belgium): in-person
 Sebastian Decker (Vienna, Austria): in-person
 Nina Denisenko (St Petersburg, Russia): online
 Emanuela Di Martino (Oslo, Norway): in-person
 Tyler Feary (Dunedin, New Zealand): in-person
 Blanca Figuerola (Barcelona, Spain): in-person
 Paola Flórez (Santa Marta, Colombia): online
 Ernest Gilmour (Cheney, WA, USA): in-person
 Sergio González-Mora (Mexico City, Mexico): online
 Dennis Gordon (Wellington, New Zealand): online
 Eckart Håkansson (Crawley, WA, Australia): in-person
 Amy Joy Hess (Wallace, ID, USA): in-person
 Masato Hirose (Kanagawa, Japan): in-person

Natasha Gray Hitchcock (Edgewater, MD, USA): online
 Mildred Johnson (Vienna, Austria): in-person
 Olga Kotenko (St Petersburg, Russia): online
 Marcus Key (Carlisle, PA, USA): in-person
 Chihiro Kubo (Kanagawa, Japan): in-person
 Hannah Lee (Elk Grove, CA, USA): in-person
 Sarah Leventhal (Boulder, CO, USA): online
 Lee Hsiang Liow (Oslo, Norway): online
 Jason Lopiccolo (Eureka, CA, USA): in-person
 Junye Ma (Nanjing, China): online
 Megan McCuller (Raleigh, NC, USA): online
 Hans Arne Nakrem (Oslo, Norway): in-person
 Andrew Ostrovsky (Vienna, Austria): online
 Anna Piwoni-Piórewicz (Gdynia, Poland): in-person
 Joanne Porter (Stromness, Orkney, Scotland, UK): in-person
 Arthur Porto (Ashland, OR, USA): online
 Mali Hamre Ramsfjell (Oslo, Norway): in-person
 Catherine Reid (Christchurch, New Zealand): in-person
 Antonietta Rosso (Catania, Italy): in-person
 Kate Runciman (Ontario, Canada): online
 John Ryland (Swansea, Wales, UK): in-person
 Ahmed Saadi (Vienna, Austria): in-person

Maya Samuels-Fair (California, USA): in-person
 Carolann Schack (Oslo, Norway): in-person
 Thomas Schwaha (Vienna, Austria): in-person
 Natalia Shunatova (St Petersburg, Russia): online
 Abby Smith (Dunedin, New Zealand): in-person
 Mary Spencer Jones (London, England, UK): in-person
 Sheena Stephens (Eureka, CA, USA): in-person
 Juan Suárez Andres (Asturias, Spain): in-person
 Yuta Tamberg (Dunedin, New Zealand): online
 Paul Taylor (London, England, UK): online
 Leandro Vieira (Recife, Brazil): online
 Mark Wilson (Wooster, Ohio, USA): online
 Judith Winston (Hutchinson Island, FL, USA): in-person
 Emmy Woss (Vienna, Austria): online

Patrick Wyse Jackson (Dublin, Ireland): in-person
 Vanessa Yepes Narváez (Santa Marta, Colombia): online
 Kamil Zagorsek (Liberec, Czech Republic): in-person

Accompanying Members

Natalie Arroyo (Eureka, CA, USA)
 Ann De Love (Dudzele, Belgium)
 Venera Gilmour (Cheney, WA, USA)
 Covadonga González (Asturias, Spain)
 Veronika Licaverova (Liberec, Czech Republic)
 Eva Lyngbakken (Oslo, Norway)

Presentations

Katerina Achilleos and Nathan J. Kenny: Unlocking the secrets of biomineralization in *Watersipora subatra* at a single-cell level
 Lara Baptista, Björn Berning, Manuel Curto, Andrea Waeschenbach, Harald Meimberg, António M. Santos and Sérgio P. Ávila: Morphospecies and molecular diversity of *Reteporella* in the Azores (central North Atlantic)
 Julian Bibermaier and Thomas Schwaha: *Plumatella fruticosa*, the non-plumatellid freshwater bryozoan? A morphological approach
 Evgenii A. Bogdanov, Andrey E. Vishnyakov and Andrew N. Ostrovsky: Vertical transfer of bacterial symbionts in cheilostome bryozoans – questioned paradigm
 Melissa Boonzaaij-Davids, Jyothi Kara, Dylan Clarke and Toufiek Samaai: Filling in the gaps: Investigating benthic faunal diversity of South Africa's understudied coastal regions
 Caroline Buttler, Ria Mitchell, Mark A. Wilson and Richard E. Johnston: Applications for X-ray Tomography/Microscopy of Palaeozoic palaeostome bryozoans
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 Sean F. Craig and Kellan Korcheck: Why Cryptic Species matter for Bryozoan Invasions
 Hans De Blauwe: Bryozoan news from the southern bight of the North Sea
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 Emanuela Di Martino and Lee Hsiang Liow: Changing allometric relationships among fossil and Recent populations of two species of *Microporella* from New Zealand
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 Paola Flórez and Diana Ochoa: Contribution to the Plio-Pleistocene bryozoans from Peru and Chile
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 Eckart Håkansson: *Lunulites abnormalis* Etheridge, 1901 -- hoax, bad mistake, or 'the one that got away'?

- Masato Hirose, Yuka Toyota (Koyano), Hiroshi Miyake, Yusuke Oyamada, Ryuichi Minato and Hideaki Mori: Bryozoan role play in the primary succession under shallow-water bottom of an isolated oceanic island after the large-scale eruption
- Masato Hirose and Sota Kaneko: Bryozoan dispersal using pumice rafting generated by the submarine eruption in the Ogasawara, Japan
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- Marcus M. Key, Jr. and Sebastian H. Decker: Fouling of the slipper lobster, *Scyllarides latus*, by cyclostome and ctenostome bryozoans in the Mediterranean Sea off Malta
- Olga N. Kotenko, Sergey V. Bagrov and Andrew N. Ostrovsky: The pallial epithelium in bryozoan larvae - how to 'dress' well
- Chihiro Kubo and Masato Hirose: Revision of Japanese *Watersipora* based on microscopic morphology and molecular data
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- Sarah Leventhal, Carl Simpson and Kayli Stowe: Evolution of avicularia in the Cretaceous cheilostome bryozoan *Wilbertopora*
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- Jason Lopiccolo and Sean F. Craig: Variation of Larval Traits and Copper Tolerance in an Invasive Cryptic Species Complex (*Watersipora*: Bryozoa)
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- Catherine Reid: A revision of the species of *Stenopora* Lonsdale 1845
- Antonietta Rosso: Morphology of cheilostome ancestrulae: is there any taxonomic relevance?
- Antonietta Rosso, Rossana Sanfilippo, Francesco Sciuto, Gemma Donato, Donatella Serio and Daniela Basso: The bryozoan *Margaretta cereoides* as habitat engineer in the Coralligenous of Marzamemi (SE Sicily, Ionian Sea)
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- Maya Samuels-Fair: Investigating determinants of reproductive trait variation across living and fossil Cheilostomes
- Carolann Schack, Dennis P. Gordon and Ken G. Ryan: Evolution and Biomechanics of Avicularia
- Thomas Schwaha, Sebastian H. Decker, Christian Baranyi and Ahmed Saadi: Rediscovering the ctenostome *Monobryozoon ambulans* Remane, 1936
- Natalia Shunatova, Sofia Denisova and Sergei Scshenkov: Nanozooids in *Diplosolen obelius*: a hard nut to crack
- Abigail M Smith and Katerina Achilleos: Distribution patterns of shelf bryozoans around southern New Zealand
- Sheena Stephens and Sean F. Craig: A review of contact dependent interactions among bryozoans
- Juan Luis Suárez Andrés, Patrick N. Wyse Jackson and Consuelo Sendino Lara: Enigmatic structures in Palaeozoic fenestrate bryozoans: the case of *Fenestella sculptilis*

Yuta Tamberg: Multilevel ageing in bryozoans: what do we (not) know?

Paul D. Taylor and Roger J. Cuffey: Bryozoans from the Turonian Carlile Shale of the Western Interior Seaway in Kansas: abundant but depauperate encrusters on inoceramid shells

Leandro Vieira: Evaluating of exotic status of bryozoans reported in Brazil

Judith E. Winston and Jeremy B.C. Jackson: Shallow water bryozoans of Caracol Bay, Haiti

Patrick N. Wyse Jackson, Andrej Ernst, Malgorzata Shaikh-Horajska and John Murray: Volgia (Bryozoa, Cystoporata): a rare occurrence from the Mississippian of Ireland

Patrick N. Wyse Jackson, Marcus M. Key, Jr. and Catherine M. Reid: Skeletonisation in the stenolaemate bryozoan orders Cryptostomata (Suborder Rhabdomesina) and Trepotomata: the role of the Bryozoan Skeletal Index (BSI) in understanding convergences and disparities

Vanessa Yepes-Narváez and Richard Preziosi: Bryozoan diversity associated with Molgula pedunculata (Tunicata: Ascidiacea) in the Antarctic Peninsula during the third expedition of Colombia to the Antarctic 2016-2017

Additional photos from Abby Smith



Top left – Caroline, Patrick and Marcus at the seaside. Top right – Sheena Stephens, Ismael Chowdhury and Tyler Feary. Bottom left – the conference dinner. Bottom right, Antonietta thanking Patrick for hosting the meeting.

REMEMBERING ROGER



*Roger Cuffey in 2009, pointing out something at one of his favourite places, Gettysburg, Pa.
Photograph by John H. Barnes.*

Roger Cuffey, an American paleontologist and life-long supporter of the IBA, died in December of 2021 at his home in State College, Pennsylvania, USA. As Roger's bibliographic professional information is available elsewhere (links below), I wanted to take this opportunity to share some personal memories of Roger. Roger was like an "academic uncle" to me. I knew him since I was a young graduate student, and he was always very supportive of me professionally. I honestly cannot recall the number of letters of recommendation he wrote for me over many years. Roger was generous in his support.

Roger had a long career in bryozoans and other geologic interests. Roger's Ph.D. dissertation on the trepostome bryozoans from the dynamic yet predictable cyclothem stratigraphy of late Paleozoic of Kansas, USA was novel for its time (1967, U. Kansas Paleontological Contributions, 96 p.). It went beyond pure description of taxa, traditional for the time, and evaluated their ecology through environmental gradients. There are still novel ideas in his dissertation waiting to be further tested. However, the world had to wait for those results because before his Ph.D. could be completed, Roger was drafted by the U.S. Army in support of the Vietnam War. He served as a Captain in the Intelligence Corps, and while Roger said that it was important work, he felt cheated out of two years that he believed could have been far better spent studying bryozoans.

Many of us got to know Roger through spending time with him on IBA field trips. With the greatest respect, I think that we could all agree that Roger was a "character". He could be spotted from a distance with his green utilitarian pants cinched high up around his waistline. This field attire served as a uniform of sorts for Roger, and he wore it to all conference functions. Another recognizable fixture on long-distance field trips was his maxi-sized, pink hard-shell,

Samsonite suitcase (chosen by him so that he could easily spot it from a distance). On the field bus, or in the conference, Roger was usually accompanied by his “briefcase”, which he would never really acknowledge was actually an overnight suitcase from a full luggage set.

On the Paris IBA field trip (1989), Roger was the IBA president and represented the group in formal toasts with numerous village mayors. Roger took the charge very seriously. The image of Roger with his necktie cinched high up on his chest while toasting French dignitaries is a lasting memory.

Those of us fortunate enough to receive correspondence from Roger through the post were treated to his cartooned “smiling bryo-colonies” that aided the communication of handwritten missives. Roger’s Christmas letters were legendary, but even when you exchanged formal business correspondence with Roger, you suspected that your colleagues in the office were silently curious about the richly decorated smiling bryo-envelope in your mailbox.

Roger was never one to adopt new technology too soon. Especially if old technology could be stretched for one more application! This struck me as odd because Roger used state-of-the art, main-frame computers in the Army and for his Ph.D., so he was quite capable. For as long as they would let him though, Roger did not own (or at least use) a home or office personal computer of any kind. He would take his hand-written manuscripts and formal correspondence to be typed by the departmental staff at Penn State until late in his career.

Roger’s hand constructed (8 x11 inch) research poster panels for conference presentations are memorable for us all. Although an undeniable dose of Luddism was likely responsible, Roger quite correctly argued that a full-sized, glossy poster does not guarantee enhanced scientific content or significance. I grew to look forward to Roger’s posters at meetings, and Roger would also point out his thrift in that his poster fit into a folder in his briefcase, whereas glossy poster tubes were often charged as overage luggage by the airlines.

I regret that many of our younger IBA members never had the opportunity to watch Roger give a conference talk with 35mm slide projectors. The experience of witnessing Roger operating two parallel slide projectors, with his talk meticulously timed to continue through the show as he held down both advance buttons through multiple slides, “cachunk-ah-chunch-a cachunk-ah-chunch-a”, was unforgettable. Regrettably, in later years once PowerPoint was a norm, the shock of being presented with a powerhouse 35mm slide show probably did distract his audience from his scientific message.

I cannot deny that Roger was trainspotter. He was not interested in timetables or registration numbers, but rather the functional diversity of locomotives and their historical contexts. Most of Roger’s trainspotting was done quietly on the side during fieldtrips, but I do remember well on the St. Petersburg trip (1998) Roger eased up to the front of the bus so that he could get a better photograph of a train crossing on a high bridge with his Pentax film camera. The young Russian driver was confused, but complied when Roger asked him to stop the bus for a better picture. While Roger was getting his shot, the rest of the bus passengers, including trip leaders, were trying to figure out why there had been an unplanned stop on an otherwise busy road.

If something off the planned path interested Roger on a field trip, he would confidently ask for permission to access it. I do not remember the details, but Roger once successfully talked his way onto an Estonian (or some similar) air force base because they hosted some Soviet era MiG jet fighters that he wanted to see and of course photograph.

Roger always seemed to have high a travel anxiety. He was worried about everything from potential water borne diseases to suspect baggage handlers, from dubious timetables of public transport to his genuine personal health concerns. But Roger was a paradox with his travel anxiety because he still always chose to travel! Roger was a veteran of IBA field trips and global transects. He rode the Siberian Express across Asia and stayed in Mongolian yurts, partaking of the local fermented drink. Roger travelled the world seeking bryozoans and reefs, no doubt anxious the whole time. One of his last, sadly unmet goals was to visit a reef he knew about in the back country of Afghanistan. He had had his eye on this site since the 1970s and waited decades for the right Afghani political window to open to make his move.

I learned a great deal of history from Roger, especially about the Napoleonic Wars, WWI and WWII. One of Roger’s research interests was the geology of battle fields and how they contributed to the battle outcomes. Roger’s passion

was the Gettysburg battlefield from the American Civil War. I never had the pleasure of a personally guided tour with Roger, but I know that a number of IBA members did. Roger was on my 2007 IBA preconference trip that included the Yorktown battlefield (the final battle of the American Revolution). During our guided tour, the National Park Ranger finally deferred to Roger's detailed explanation of events of the Yorktown battle and closing of the Revolutionary war.

I only knew Roger's sons Cliff and Kurt from brief encounters at the Bellingham IBA (1986) when they were young boys. They were accompanying their father on an associated bryozoan field trip from the east to the west coast of the US, including excursions into Canada (8,000 mi, 12,900+ km). Roger raised these boys on his own. Cliff is now a Senior Staff Geologist with Chevron Oil, and Kurt is a full professor of Ocean, Earth and Climate Science at UC Berkeley, and both have full and rewarding personal lives. Good job Roger!

I close this remembrance with an emphasis of Roger's generous nature. Although he was undoubtedly a "character", Roger had many, many friends in the IBA. One testament of this is the large number of collaborative papers that Roger had with IBA colleagues over his career. Another is the warm spot that so many of us have for Roger, even after his passing.

*Steve Hageman,
Appalachian State University*

Additional Bibliographic Information for Roger Cuffey

Norbert Varvra's IBA Newsletter Article, Spring 2022

<https://www.nittanymineral.org/bulletin/NMS2201.pdf>

<https://www.24-7pressrelease.com/press-release/461391/roger-j-cuffey-phd-presented-with-the-albert-nelson-marquis-lifetime-achievement-award-by-marquis-whos-who>

https://prabook.com/web/roger_j.cuffey/3385862

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 re-drafting 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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