



Bulletin

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Judith Winston, President

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Comments regarding this Bulletin should be addressed to the IBA Secretary:

tim.wood@wright.edu

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News from the Membership

Dennis Gordon. The wildlife in the Ngorogoro Crater, near Serengeti National Park, in northeastern Tanzania is justly famous, but bryozoologists have an additionally compelling reason for visiting - freshwater bryozoans! In November, Dennis Gordon found himself standing in for a colleague as acting New Zealand Head of Delegation to the 15th Governing Board meeting of the Global Biodiversity Information Facility. The conference was held in Arusha, three hours drive from Ngorogoro Crater, where the delegates had a one-day safari. In the crater there is a lake and several large ponds, one of them by a toilet block. Although occupied by many hippopotamus, the pond has an accessible shallow area wherein are small rocks with freshwater leeches, bryozoans, and other invertebrates. Dennis collected one rock with a sole colony of a phylactolaemate that, unfortunately, lacked statoblasts. This is almost certainly the first record of a bryozoan from this area and of interest to Tanzanian scientists working in the Ngorogoro Conservation area and to the newly established Tanzanian Biodiversity Information Facility (TanBIF). If you find yourself visiting the area, do try to obtain more bryozoan samples so that the species can be identified.



Dennis with a rock from the hippo pond, in the company of GBIF delegates.



Photo of the phylactolaemate colony.

Abby Smith. In June I was invited to speak at an Ocean Acidification workshop in Hobart, Tasmania. The workshop was stimulating and useful; I got to see a Tasmanian Devil; and there were some magnificent bryozoans. I took these pictures at a beach about an hour from Hobart of the Deep Bay Formation, Late Permian. It was simply fantastic.





(Abby Smith photos, continued)

Eckart Håkansson: I have changed my location from Copenhagen, Denmark to Perth, Australia!! My wife Lena – whom many of the IBA members will know from a streak of IBA's in the 80ies and the early 90ies – landed another job in the oil business, in Perth of all places, and they wanted her so fast, that she took off almost three months before Christian and me. But now we are all together again & trying to get organized. It will be at least another month before we can hope to get re-united with our belongings, & till then nothing much will happen on the bryozoan front I'm afraid.

After initial negotiations it seems that I can be lodged with a paleo-group in the Western Australian University headed by Dr. Zhong Qiang CHEN. So when my stuff arrives I hope to get going straight away.

More news as it develops. The email address is now eckart@cyllene.uwa.edu.au

Andrew Ostrovsky. In September I was in Marseille where I made two dives to the local underwater caves and met Jo Harmelin. As you can see in the attached photos he is very active despite his retirement.



a) Andrew in the Mediterranean
b-c) Jo Harmelin in his office.



Laís V. Ramalho. I am working together Dra. Mônica Botter (Universidade Federal Rural de Pernambuco) with bryozoans from Pernambuco State. As soon as possible new papers will be published about species from there.

During the last week of January (2009) I will give a course about marine bryozoans at Museu Nacional (Rio de Janeiro) to post-graduate students. This discipline aims to increase the knowledge about Bryozoans together students and to give basic notions about the taxonomy of the group.

I met Dennis Gordon at Curitiba (Brazil) during his visit to Brazil. He watched the end of the South American Cup of Soccer together with my family during the long dinner. It was a very fun night.

Oscar Reverter-Gil – University of Santiago de Compostela, Spain. We are now preparing the first Iberian Fauna of Bryozoans. As the number of species is about 450, we have divided this large project research, starting with Ctenostome and Anascan species, about 150 spp. This summer I have spent two weeks at the Natural History Museum in London, looking for Iberian and other reference material. I must acknowledge a Synthesys grant, which enable this visit. I am also grateful to Mary Spencer Jones for her kind assistance, not only during the stay but also before and after the visit. As this one was during the summertime, many people were out in holidays, but I had the chance of taking this photo.



Jim Chimonides, Beth Okamura, Paul Taylor, Tanya Knowles and Mary Spencer Jones at the Natural History Museum, London. August 2008.

Javier Souto. From November 15 until December 13, I have been fortunate enough to make a stay in the *Muséum National d'Histoire Naturelle*, Paris, thanks to a Synthesys grant. I have studied Iberian Bryozoans held in the Collections, as well as other reference material, to complete the information of the Iberian Fauna Project. During the first week of the stay I was accompanied by Oscar Reverter-Gil. The work wouldn't have been possible without the generous and kind support of Jean-Loup d'Hondt and Pierre Lozouet (the current responsible for Collections). We have also examined the type material of some species of *Amathia* Lamouroux, described by Lamouroux and Lamarck, and we have found the type of *Amathia semiconvoluta* Lamouroux. Special thanks must also be given to Jean-Paul Saint Martin and Hervé Senut, in the department of Paléontologie, where we have found the material figured by Canu & Bassler in their monographies on the Bryozoans from Morocco and Tunisia; this material, sometimes considered missing, was in two drawers at the back of a corridor. I hope that these data will be published soon. (See photos below).



The Canu & Bassler figured material from Morocco and Tunisia. MNHN-Paléontologie.



Javier Souto and Jean-Loup d'Hondt at The MNHN, Paris.

Francesco Toscano. The record of *Manzonella exilis* Manzoni, 1869 from the Pleistocene of Gallina (Reggio Calabria, Southern Italy) prompted me to look for where the fossil and recent collections of the past Italian bryozoologists were stored. Unfortunately I discovered that the Angelo Manzoni samples have been lost, while the collection studied by Antonio Neviani from the Pliocene of Monte Mario and Farnesina (Rome surroundings) is housed at Museo Geologico of the University “La Sapienza”, Rome. On past late October thanks to the help of Vittorio Garilli, a palaeontologist friend from Palermo, I was allowed by Carolina D’Arpa, the curator of the Museo Geologico “G. G. Gemmellaro”, University of Palermo, to survey the Francesco Cipolla collection from the Pliocene of Altavilla. The collection consists of three drawers, nicely stored bearing their original labels. The collection is easy to investigate thanks to the original records catalogue listing the occurring species, including the “new species” described by Cipolla in his first short paper published in 1920 and subsequently in his big monograph concerning Altavilla Bryozoa fauna he published in 1921.



Figs 1 & 2 caption. Pics of the Francesco Cipolla original specimens collected from the Altavilla Pliocene beds studied and pictured by the author in his monograph.

Vittorio Garilli also organized on my behalf a successful field trip to the Altavilla beds, helping me to collect samples rich of bryozoans encrusting *Ostrea* sp. and the big *Flabellipecten flabelliformis* Brocchi, 1814 valves and their fragments, and allowing me to record interesting species including elusive boring species.



Fig. 3 Detail showing the rich bryozoans Altavilla beds.

Finally, after reading in latest *IBA Bulletin* the note posted by Seabourne Rust (University of Auckland, Auckland New Zealand) concerning the brachiopods and bryozoans association I enclosed some pictures of *Terebratulina scillae* from the Pleistocene of Gallina colonised by bryozoans. The *T. scillae* specimens I have show that the association between taxa is not occasional being the brachiopod colonised when they were still alive by a few number of cheilostome and cyclostome colonies. All recorded species settled on brachiopods are different from the bryozoan taxa I recorded in the assemblage forming the tanathocenosis buried the *T. scillae* bed.



Figs 4 & 5. A couple of *Terebratulina scillae* valves differently colonised by the associated bryozoan species encrusting the brachiopods (Gallina, Reggio Calabria, Pleistocene of Southern Italy).

Francesco Toscano Note my new email address: frantosc@alice.it

Leandro Manzoni Vieira. I got my Master's degree from Universidade de São Paulo (USP) this month, with master thesis title "*Sistemática e distribuição dos briozoários marinhos do litoral de Maceió, Alagoas, Brasil*". During these two years, I collected some specimens in intertidal zone in the Northeast Brazil, including about 65 species (18 new species and one new genus), whose results I am writing in collaboration with Dr. Judith E. Winston (VMNH) and my supervisor, Dr. Alvaro E. Migotto (USP). Also in this month I started my PhD at USP, with preliminary subject "Revision of Atlantic *Scrupocellaria*" based in morphological data, but probably I will include molecular analysis. Probably Judith is coming to Brazil to review my PhD plan work and discuss about other works. I hope to establish cooperation with IBA members to obtain help with literature (principally with Pacific researches) and specimens of *Scrupocellaria*. I am planning to attend the IBA meeting in Kiel and present and discuss some results of my work.

In the first six months of 2008, two professors and I made a research group about systematic, biology and ecology of bryozoans

[<http://dgp.cnpq.br/buscaoperacional/detalhegrupo.jsp?grupo=0291107R08HT2A>]. The



Photo_1: Maria Angélica Haddad, Facelúcia Souza and Leandro M. Vieira in CEBIMar/USP.

leader, Dra. Facelucia Barros C. Souza, teaches at Universidade Federal da Bahia (UFBA, Brazil) and she has interest in sedimentology and ecology of bryozoans; Dra. Maria Angélica Haddad teaches at Universidade Federal do Paraná (UFPR, Brazil) and works with ecology of bryozoans and hydroids in South Brazil. Facelucia and Angélica are supervisors of students that also work with bryozoans: Vanessa E.S. Almeida (PhD student at UFBA) and Halina Heyse

(biology student at UFPR). The work of this group comprises primarily the bryozoans collected in Brazilian continental shelf and slope and it has the cooperation of some bryozoologist, included Judith Winston, Dennis Gordon and Jean Loup d'Hondt.

This month, I had the pleasure to meet Dr. Dennis Gordon in Centro de Biologia Marinha (USP) in São Paulo, Brazil, together with Dra. Facelucia Barros C. Souza and Dra. Maria Angélica Haddad. Dennis came to Brazil at the beginning of December to the Catalogue of Life team meeting, in Curitiba, where he met up with Lais Ramalho (UFRJ). In São Paulo, he presented two seminars: one was about bryozoans, at Centro de Biologia Marinha, and the other was about marine species in New Zealand, at Instituto de Biociências of USP; Dennis also helped in the identification of bryozoans collected in REVIZEE program (specimens from Brazilian continental shelf



Photo_2: Dennis Gordon, Leandro M. Vieira and Maria Angélica Haddad; Hotel before the dinner in São Sebastião.

and slope).

Emmy Wöss. In the course of the Synthesys funded project, “Phylogeny of plumatellid bryozoans (Ectoprocta: Phylactolaemata) using molecules and morphology,” I had a further stay at the Natural History Museum in London from October 26 to December 20, 2008. I want to heartily thank Andrea Wäschenbach, who was such an excellent host and made the genetic work to be so very successful. Greatest thanks also to Mary Spencer Jones who was perfect as usual in providing support in dealing with the freshwater bryozoan collection.

Also, during an ÖAD-funded Austrian-Croatian two-year project Maja Novosel and I had intense weeks of bryozoan sampling in Croatia this season. Maja’s excellent choice of sites brought us in areas which had not been touched by freshwater bryozoologists and were fascinating in so many aspects for bryozoan research.

Kamil Zágoršek. Here are several news items:

- With Prof. Vávra and colleagues from Brno we got a five-year project with title Shallow water ecosystems from the Middle Miocene of the Central Paratethys: Succession and interactions between inorganic and organic elements of the ecosystems. The main idea is to study the profiles of Miocene sediments across the Europe (mainly north-south transect – from Poland, through Czech, Slovakia, Hungary, Austria, Rumania, Slovenia to Italy and perhaps to Greece) and to study the whole fauna (bryozoans, molluscs, foraminifers, echinoids, brachiopods...). So I turn to anybody, who knows suitable Miocene profiles with kind request. Please be so kind and let us to know the sections. Thanks in advance for your kind help.
- Finely I have my personal page on http://www.nm.cz/cv/zagorsek_en.php
- One sad news: Prof. Ghiurcă died at the age of 81 on November the 1st, after a long and serious illness and after a complication given by pneumonia. The obituary will be published in Studia Universitatis Babeş-Bolyai, Geologia.
- National museum Prague has a new SEM Hitachi S-3700N which allow the study large, uncoated specimens. The usage is still free, so You are welcome to visit Prague and to bring your specimens for SEM study. Looking forward your visit☺.



New Members

Zoya Tolokonnikova. I am assistant professor (PhD) in the Kuzbass State Pedagogical Academy, Novokuznetsk city (Russia). My scientific research is Late Devonian and Lower Carboniferous bryozoa. My interest to fossil began as a student. The photo here shows me in Gorny Altay (Russia), when I encounter Famennian bryozoans in the mountains. In the photos below you can see colonies. I am planning studies of Famennian bryozoans throughout all of Russia. Also to see Middle Palaeozoic bryozoans from the USA and Europe would be very interesting for me. If somebody could help me with it I would appreciate it very much.



Limestone with brachiopods, bryozoans



Andrea Waeschenbach. This article is designed to introduce myself as a new IBA member, however, some of you might remember me from my time as PhD student in Swansea, when I worked with Peter Hayward, David Skibinski and Joanne Porter on ctenostome bryozoans, principally the genus *Bowerbankia*. After my years as undergraduate and postgraduate in Swansea, the 'Big Smoke' called and I took up a position at the Natural History Museum, London, to work on molecular phylogenetics of platyhelminthes and nematodes with Tim Littlewood. However, the bryozoan-fever never quite left me and Tim's enthusiasm for mitogenomics soon rubbed off on me, hence, we sequenced the mitochondrial genome of the ctenostome bryozoan *Flustrellidra hispida*. During the Aberystwyth Larwood Meeting in 2005 a meeting with Paul Taylor budded the idea of constructing a molecular phylogeny of cyclostome bryozoans. Whilst obtaining funding for this work, Joanne Porter and my fellow worm-colleagues Tim Littlewood and Bonnie Webster took an enjoyable and successful

collecting trip to Endoume Marine Station, Marseille, due to Jo Harmelin's expertise to hunt down Mediterranean cyclostomes. Many thanks again, Jo!

Now that we've got funding from the Natural Environment Research Council until September 2010 (the team, apart from me: Tim Littlewood, Paul Taylor, Joanne Porter), we'll be addressing three central questions in bryozoan phylogenetics; a) the interrelationships of the three bryozoan classes and the monophyly of the phylum, and hence their position in the Metazoa, b) the interrelationships and origins of cyclostome suborders, a group for which morphological phylogeny-informative characters are sparse, and c) the underlying causes for mutational rate variation and rates of morphological change across lineages of bryozoans with different reproductive strategies.

The fieldwork for this project has taken Joanne Porter already to New Zealand, where she collected many cyclostomes with the help of Dennis Gordon and Abigail Smith, and it has taken me to Bergen/Espeland Marine Station, Norway, where I was hosted by Christoffer Schander (University of Bergen).

Most recently, Emmy Wöss was awarded her second Synthesys grant and spent 2 months at the NHM with me, during which we worked on a molecular phylogeny of phylactolaemates, with a focus on the Plumatellidae (see attached photo).

Before I finish, in addition to the people mentioned above, I'd like to thank Francesco Toscana who has collected beautiful Mediterranean material for us, Hanna-Leena Hartikainen and Emmy Wöss for providing us with phylactolaemates and Scott Tompsett and Piotr Kuklinski for donating some of his material. A special thanks also to Mary Spencer-Jones for her amazing support at the NHM.



Andrea Waeschenbach with Emmy Wöss (l-r) at the Natural History Museum, London.

Editor's note: I neglected to add Andrea's contact information to the latest Membership List. It is:

Dr Andrea Waeschenbach
DC1 712
Department of Zoology
The Natural History Museum
Cromwell Road, London SW7 5BD, UK
Tel: +44 (0) 207 942 6114 or 5008
Fax: +44 (0) 207 942 5151
a.waeschenbach@nhm.ac.uk

Larwood Conference 2009

The 2009 Larwood Conference will be held in Oslo May 21-23. The conference host, Hans Arne Nakrem, has arranged for a magnificent venue inside the Botanical Garden at the Natural History Museum, University of Oslo. Details and updates are posted on the webpage: <http://natmus.uio.no/larwood/>.



Please note these dates:

15 February	Registration deadline
15 April	Abstracts due
21 May	Marine zoological field trip
22 May	Presentations
23 May	Paleontological/scenery trip

AustraLarwood Symposium 2009

Rolf Schmidt reports that the ANZIBA (Australia New Zealand faction of the IBA) will be holding the 2009 AustraLarwood Symposium on the 14th to 16th March in Melbourne. The venue is Royal Society of Victoria, across the road from the Melbourne Museum. There will be a one-day symposium followed by a one day field trip (hopefully one part collecting recent material, plus collecting fossil bryozoans from Fossil Beach). If there is sufficient interest, Rolf will hire a bus for a 2-day trip along the Great Ocean Road. He hopes to make the Symposium free for participants, apart from obviously travel and accommodation. For additional information contact Rolf: rschmid@museum.vic.gov.au.



More on Bryozoan-Brachiopod Associations

Seabourne Rust

I would like to thank IBA members for their feedback on this topic since the last newsletter, especially Dennis Gordon, Paul Taylor, Catherine Reid and Marcus Key. Francesco Toscano sent interesting information on bryozoans encrusting terebratulid brachiopods from the Italian Pleistocene. Daphne Lee (University of Otago, NZ) also provided helpful discussion on brachiopods.

To recap, *Crepidacantha crinispina* (CREPIDACANTHIDAE, Levinsen 1909) is one of the most frequently occurring and widespread cheilostome bryozoans in the NZ region today (see Rowden et al. 2004); a common intertidal –shelf species around the North Island, at depths of 0-549 m (Gordon 1989), and is also known from Australia, Indonesia and Thailand (Gordon 1984, Brown 1952). Unilaminar encrusting colonies of this species are made up of zooids that vary somewhat in size, usually recognisable from the trifoliate orifice, lacking oral spines, but with adjacent paired avicularia that bear long setiform mandibles, and possessing fine-grained frontal walls with marginal pores and hyperstomial ovicells (Gordon 1984).

Epifaunal, suspension-feeding, articulate brachiopods are known to support bryozoans and other epibionts, well-documented from the Paleozoic and the Recent (see Taylor and Wilson 2003 for a review) although somewhat less for Cenozoic occurrences, despite being relatively common. Undoubtedly distributions of the bryozoan *Crepidacantha crinispina* and the brachiopod *Calloria inconspicua* overlap on the shallow shelf around New Zealand; sharing the same habitat, they frequently co-occur. Both organisms require stable substratum for attachment, valves of living *Calloria* form a suitable hard surface upon which *Crepidacantha* can grow.



Fig. Modern specimens of the brachiopod *Calloria* (*Waltonia*) encrusted by *Crepidacantha crinispina*. Intertidal wash-up specimens from Laings Beach, Waipu, New Zealand.

Why does this bryozoan species in particular seem to be found on the brachiopod valves...is there a mutual relationship, or some kind of preservation bias?

Perhaps *Crepidacantha* has an attachment strategy that enables it to encrust the somewhat smooth valves of the brachiopod, and remain sufficiently attached so to be preserved in washed-up material and fossil specimens. Occasional specimens are found in Pleistocene strata at Wanganui where basal etchings (which correspond to the trace *Leptichnus* of Taylor et al. 1999), suggest that *Crepidacantha* zooids are capable of partly embedding (perhaps by chemical means) in the shell substratum.

Of course more feedback and discussion is welcomed!

Seabourne Rust

Dept. of Geology, University of Auckland, Auckland, New Zealand

seabourne.rust@gmail.com

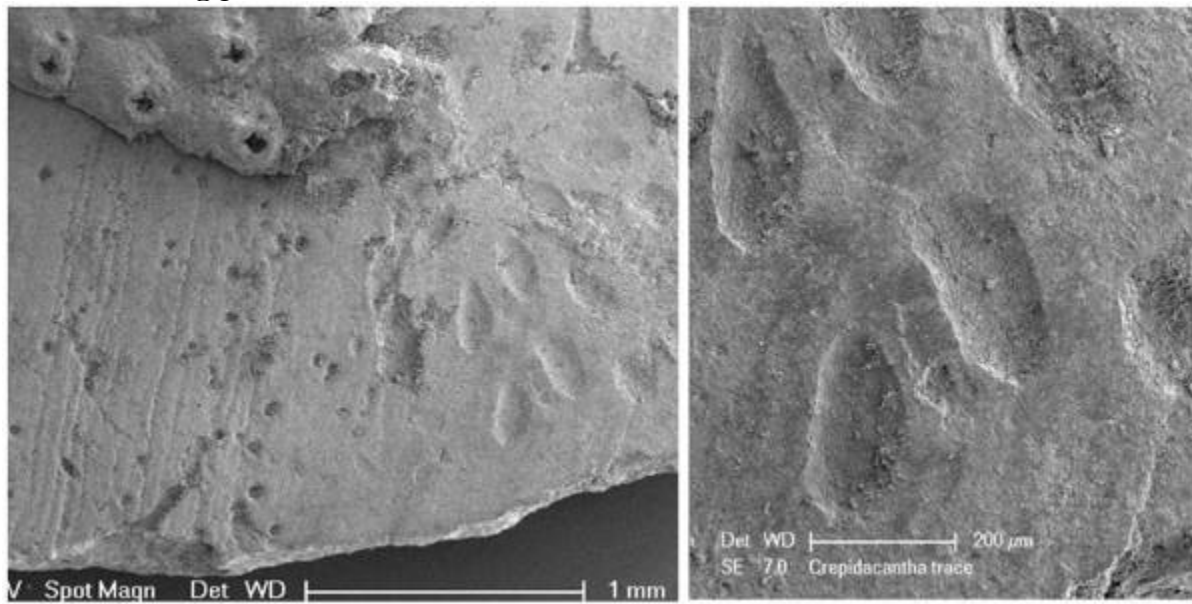


Fig. SEM images of the traces (*Leptichnus*) left by the attachment of *Crepidacantha crinispina* zooids. Fossil specimens from the Lower Kai Iwi Shellbed, Kai Iwi Beach, Wanganui, New Zealand, (Castlecliffian Stage, Pleistocene). Scale bar at left = 1.0 mm; at right = 0.2 mm.

Hommage to a Traveller: Gero Hillmer Gains Honorary Citizenship in the Brazilian State of Ceará.

Joachim Scholz, Senckenberg Research Institute, Frankfurt am Main, Germany

Pterosaurs, like hominoid fossils or retired professors advancing into entirely new professional achievements after their actual retirement, are considered to be rare. Even experienced collectors specializing in them may enjoy only one or two findings within their whole lifetime.

One of the very few localities where the fragile, pneumatized and ephemeral bones of pterosaurs have survived the numerous perils of fossilization, is the famous Santana formation of Brazil. In 1991, Peter Wellnhofer (Munich) wrote: “The fossil sites of the Santana Formation of the Araripe Plateau in north eastern Brazil seem to be inexhaustible....”

Thousands of superb fossils – not only pterosaur, but also amphibians, fish, arachnids, insects, and plants, have been found in the quarries of the Aptian Crato Limestone, and the Albian Santana Formation. Roughly 115 to 100 million years old, these fossils were first described by the German naturalists, Johann Baptist von Spix, and Carl Friedrich Philipp von Martius, on their journey to Brazil in 1817-1820. Nowadays, every student of Geology and Paleontology will have to look at some historical or modern illustrations of Santana fossils, serving, for example, to illustrate plate tectonics and the breakup of Gondwana, since the Santana fossils are closely linked to similar findings of the same age in Western Africa.

Less known, but for the Brazilian people of nearly equal importance is the fact the the Cariri region displays a peculiar and valuable cultural heritage, and a diversity of landforms and different habitats supporting an exceptional diversity of equatorial plants and animals. Some of the Santana Pterosaurs, like *Tapejara* (the Old Being) or *Tupuxuara*, relate to the cultural legacy, and mythological figures of the original inhabitants of the country, the Tupi Indians (Wellnhofer 1991), thereby illustrating that natural heritage and cultural identity becomes inseparable on such a regional level. Biodiversity of nature nourishes biodiversity of culture(s).

Culture, Biology and Geology – these are also the three “pillars of wisdom” necessary to support a region entering the auspices of the UNESCO, to attract the support of the World Bank, and finally to be declared as a UNESCO Geopark. UNESCO criteria for a given region to qualify as a geopark were envisioned for the first time during the United Nations Conference on Environment and Development in Rio de Janeiro, 1992. Thus the UNESCO geopark movement originated in Brazil. However, in 2006, there were already 12 Geoparks in existence in China, but none at all in the whole of Latin America (Hillmer 2006).

Gero Hillmer entered the region rather coincidentally. In 2000, he became a Scientific Consultant of the film-project “Ancient Amazon”, produced by the Austrian TV-Channel (ORF); the French TV-Channel (DocStars) and the German TV-Channel (ZDF). He recalls that on 20th of April, 2000, a Thursday, he arrived together with the film team at Juazeiro do Norte, crossing Crato to Nova Olinda with all the small limestone quarries beside the road. They visited the small town Santana do Cariri with the beautiful church, the historical houses around the market place and the Museum of Palaeontology. Driving up to Pontal do Santa Cruz – a vantage point of red-coloured Sandstones of the Exu Formation (Cenomanian), they had a magnificent view into the Araripe Basin. “And I recall very well that all members of

the film team (were) stressed, (and) that it will be a great pity that we never will have the opportunity to come back to this wonderful place.”

But the opportunity came soon enough. This region was already declared as a “Floresta Nacional do Araripe” by the Federal Government, being the First National Brazilian Forest established in 1946 (Herzog et al. 2008), and this was one of the arguments to support the future steps towards the geopark, a concept developed by Gero Hillmer together with his colleagues from URCA, the Universidade Regional do Cariri, Ceará, Brazil.

Since 2004, Gero Hillmer became Scientific Consultant of the URCA. Several visits crossing the Atlantic in both directions were supported and funded by DAAD/ German Academic Exchange Service and BMZ / Federal Ministry of Economic Cooperation. As early as 2005, Gero Hillmer became Professor honoris causa of URCA. In the month of September of the same year, an application dossier for nomination Araripe Geopark, State of Ceará, Brazil, was submitted as an initiative of the State of Ceará represented by the Secretariat of Science and Technology and Higher Education.

From the very beginning, the ideas of Gero Hillmer for the Geopark, and his engagement while collaborating with the governor and his staff members, and with André Herzog and Alexandre Feitosa Sales from URCA, has been crucial for the eventual success of the application. On September 20, 2006, I received an Email from Gero Hillmer, who wrote that he was just sitting in a hotel lobby in Brazil, when he received a phone call by the governor, telling that the Geopark was finally approved. By that time, the Senckenberg Nature Research Society (SGN) was one of the collaborators of the geopark, and our Museum in Frankfurt was visited twice by delegates of both the URCA and the Governor of the State of Ceará. The second visit was scheduled on June 28, 2008, and is illustrated in Figure 1, and 2.



Figure 1: Joaquim Cartoxo Filho, State Secretary of Ceará, in the Senckenberg Museum in Frankfurt, Germany

Figure 2. Dwarfing a dinosaur in the background of the Senckenberg Museum: Herbert Rocha,, Environmental Agency of Ceará; Mónica A. Amorim, Senior Consultat, World Bank; Emanuela R. Monteiro, Cities of Ceará Project Manager; Joaquim Cartoxo Filho, State Secretary; Gero Hillmer, University of Hamburg; and André Herzog Cardoso, professor at URCA

The area of the Geopark covers now more than 5,000 km² around Ceará and is bordered by the states of Pernambuco and Paraíba. The URCA Museum of Paleontology, located in the city of Santana do Cariri, is the facility responsible for both research projects in the Geopark, and informing visitors about the natural heritage to see and admire in this place of the world.

In recognition for his distinguished efforts in establishing the first UNESCO Geopark in Latin America, the legislative assembly of Ceará approved on November 21, 2008, that Gero Hillmer is to receive the honorary citizenship of the Ceará State (Cidadao Cedareense).

According to the Chinese calendar, Gero Hillmer was born in the year of the so-called Fire Rat (1936). An internet source says that these Rats favour change, like to travel and are eager to start new projects or to take trips to exotic places. Fire Rats are likely to change their occupations and residences more often than most, and reject any kind of routine.

Let us not dwell upon this perhaps rather doubtful source: But, as a matter of fact, Gero Hillmer has always liked to travel, and was always eager to change occupations. The change towards Brazil brought so far his greatest achievements.

At the beginning of the 1990s, the largest Santana Pterosaur found was *Tropeognathus robustus*, a species showing a wing span of 20 ft (Wellnhofer 1991; a slightly larger species named *Cearadactylus* was found in 1994, see Herzog et al.). This is far larger and far more spectacular than the largest known fossil bryozoan colony, a trepostome (*Heterotrypa frondosa*) that measured puny 30 inches when re-assembled (see Cuffey & Fine 2005). So it is no wonder that Gero Hillmer turned his attention to the more spectacular, and much larger specimens, the rulers of the mesozoic skies.

On behalf of the IBA community, I congratulate Gero Hillmer for his honorary citizenship, and wish for his coming achievement the finding of a pterosaur or dinosaur bone, encrusted by considerably large bryozoans, large enough to fit, for example, the demands of another Roger Cuffey article on large bryozoans. Since the lagoonal sediments of the Crato limestone, and Santano Formation are not known for their bryozoans, this eventually means a new project in another exotic place, another change of subject, more travel, and a long life still ahead, to accommodate all these enterprises.



Fig. 3: In 2007, Gero Hillmer introduces the freshly approved Geopark Araripe to the members of the Parliament of the Brazilian Federal State of Ceará in Fortaleza (shown together e.g. with the Gouverneur of Ceará, the president of the parliament, an interpreter, and professor José Theodoro (deputado, PSDB) who gave a laudatio.



Fig. 4. Professor André Herzog with Gero Hillmer showing the document of Honorary Citizenship of Ceará. To the right the DAAD consultant Dr. Friedhelm Schwamborn und his wife Dr. Ingrid Schwamborn

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Bryozoans in Time and Space: North Sea Bryozoans Studied by Franziska Bitschofsky, Rostock

Joachim Scholz

On September 26, Franziska Bitschofsky successfully defended her excellent M.Sc. (diploma thesis) on epizoic bryozoans dwelling on *Flustra foliacea* (L.).

Franziska was able to demonstrate, that historical collections of bryozoans may serve as a valuable research infrastructure, and thus contribute to some of the aspects of the current discussions on climate change.

For her study, Franziska prepared a taxonomical survey utilizing museum collections in Kiel (c/o Dr. Dirk Brandes, Zoological Museum), Berlin (c/o Dr. Carsten Lüter, Museum of Natural History). Hamburg (c/o Dr. Schmidt-Rhesa, Zoological Museum) and in Frankfurt. The Senckenberg Research Institute keeps samples from the German Bight and the whole North Sea Basin, collected on an annual base ever since 1977. The museums in Kiel, Berlin and Hamburg contributed the historical samples (Kiel: 1904-1908; Berlin: 1776-1943; Hamburg: around 1926), thereby covering more than 200 years of collecting *Flustra*.



Figure 1: The oldest sample available for Franziska's study: collected 1776 (Natural History Museum, Berlin), and despite of the ancient herbarium style of keeping, showing well preserved epizoic bryozoans.

Figure 2: "Truckloads of bryozoans" reloaded: Frankfurt, *Flustra*, and Franziska

Aside from the above-mentioned taxonomical survey, Franziska was able to show by means of cluster analysis, that the epizoic bryozoan community on *Flustra foliacea* clearly reflects the regional patterns of northern and southern North Sea, controlled by hydrographical factors and differentiated along the 50m depth contour. On the other hand, the temporal patterns showed no significant changes. Instead of that, the historical samples more or less outline the regional patterns already evident in the more recent collections. However, some of the epizoic species are present on *Flustra foliacea* occur only in the historical specimens and may have vanished in the past decades, whereas new species arrived. The study will be continued.

References:

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- Bitschofsky, F., Hirose, M. & J. Scholz (2008): Case Studies on Bryozoans as Oceanographic and Climate Indicators. – Erlanger Geologische Abhandlungen, Sonderband 6, Jahrestagung der Paläontologischen Gesellschaft, 08.-10. September 2008, Erlangen, S. 22-23. ISSN 0071-1160.

News from the NHM

Mary Spencer Jones

This year has been a busy one at the NHM with the arrival of a new curator, Tim Ewin, to cover bryozoans and echinoderms in Palaeontology. As you will see from the listing at the end, the NHM has truly become a focus for work on the Bryozoa!

2008 has also seen the introduction of a variety of new collections policies and procedures, and a new collections management system [KE Emu] which has resulted in a great many curatorial changes taking place.

Donating.

If you are considering a donation to the museum, then please request a "*Transfer of Title*" form from Mary or Tim. Any collecting permits or official letters have to be attached to this as well. This is to show that material has been collected legally.

If you require registration numbers please think about this well in advance. All new material now has to be entered into the new system, some of the numbers are self-generating and we can no longer guarantee to give out registration numbers straight away. Therefore, please allow for this when making such a request.

Loans

Before requesting a loan, please make sure that you have completed an "*Approved Borrower*" form from Mary or Tim. This has to be counter-signed by the head of your institution.

All new NHM loans have to be processed through KE Emu. This means that in many cases all the data on the specimens requested, has to be entered by the curators before they can start to actually process the loan. Therefore, please allow extra time for this to happen when making loan requests.

Special Collections

The Busk "*British Museum Catalogue*" specimens, the main "*Challenger*" types and the George Johnston collection have now been placed into the special collections category. Due to their importance and their age (they are becoming very fragile), the material has been placed under special collections and will no longer be allowed out on loan. Visitors are still welcome to view the material at the museum. Because of these new restrictions, photographing and scanning these specimens is being given the highest priority and images will be placed into KE Emu. At the present time, it is anticipated that data and images on KE Emu will be available across the web sometime next year.

Visitors

If anyone is considering a trip to the NHM, then will you please notify your host well in advance of your visit. NHM security arrangements for scientific visitors require that anyone coming for more than the odd day now has to have a photo-pass. This means that paperwork has to be completed, sent to departmental offices, signed by the Head of Department and transferred to security well before you arrive. This process takes about 2 days on average so please book as far in advance as possible. Also, staff have other duties, some taking them off-site, and so will not necessarily be in the museum if you try to visit at short notice. Having said this, we do want you all to keep on coming!

When you arrive at the museum, you will need to sign in at the Bronze Gate, which is located on Exhibition Road, just south of the entrance to the NHM Earth Galleries.

Special note: I have just been informed that two different sets of building projects are likely to take place in the vicinity of the Recent dry collections and the Harmer Library from mid-January to mid-

March 2009. If you are intending to visit, could you please contact me (m.spencer-jones@nhm.ac.uk) well in advance, as access might be limited during this period.

Department of Zoology

Curator

Mary Spencer Jones

Researchers

Beth Okamura

Hanna-Leena Hartikainen

Tanya Knowles

Jorge Salgado

Andrea Waeschenbach

Volunteers

Carmen Thomas

Vicki Holmes

Department of Palaeontology

Curators

Tim Urwin

Di Clements (occasional)

Consuelo Sendino (occasional)

Researchers

Paul Taylor

Scott Tompsett

Volunteer

Rory Milne

IBA Treasurer's Report

As at the end of 2008, the IBA's accounts stood in credit of \$10,429.14. We hold \$5000 in a saving account and the remainder in an interest-bearing cheque account. Since 1 July 2007, we have spent \$915.73, mostly on administrative items. We have had an income of \$4025.40, which consists of 51 subscription fees, donations totaling \$578, and some interest.

If you are not sure whether you have paid your 07-10 IBA fees, please feel free to email me and I will let you know. I can also send you the form electronically.

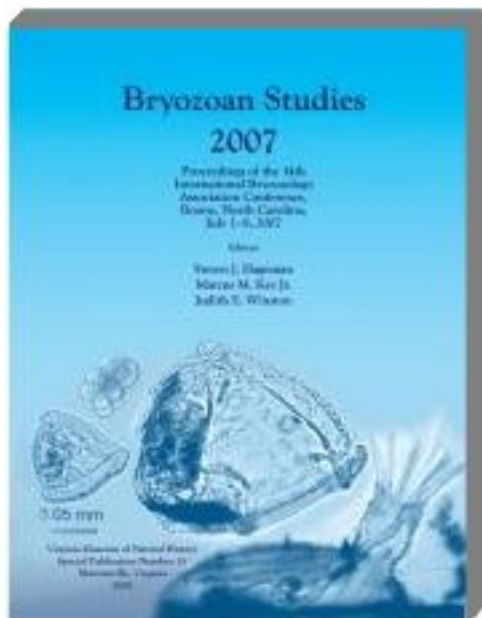
Happy New Year to all!

Abby Smith

IBA Treasurer

Abby.smith@otago.ac.nz

Bryozoan Bookstall

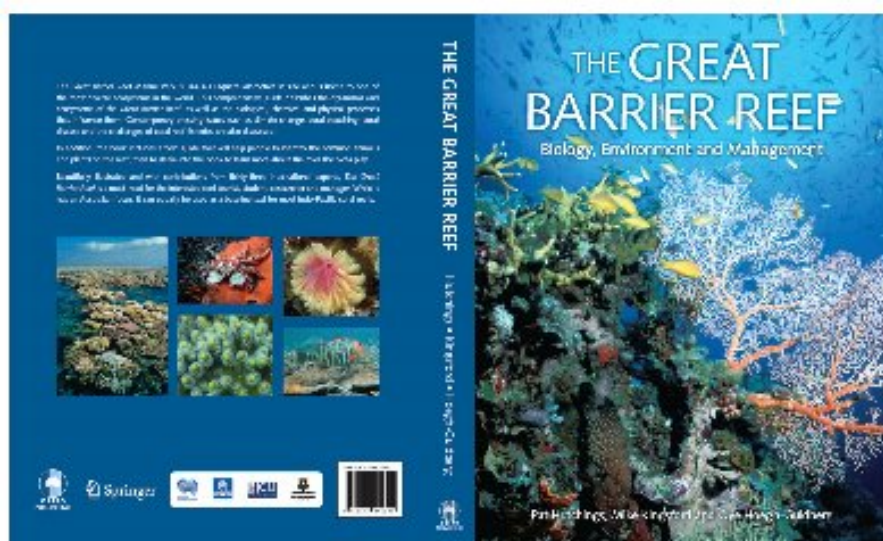


Bryozoan Studies 2007. Proceedings of the 14th International Bryozoology Association Conference, Boone, North Carolina, July 1-8, 2007. Steven J. Hageman, Marcus M. Key, Jr., and Judith E. Winston, eds. Virginia Museum of Natural History Special Publication No. 15: 1-352. It contains 36 papers and has a hard cover.

Copies can be ordered online from the bookstore of the Virginia Museum of Natural History. The bargain price is US\$52 plus shipping. The URL is <http://www.vmnh.net/store.cfm?itemID=63>

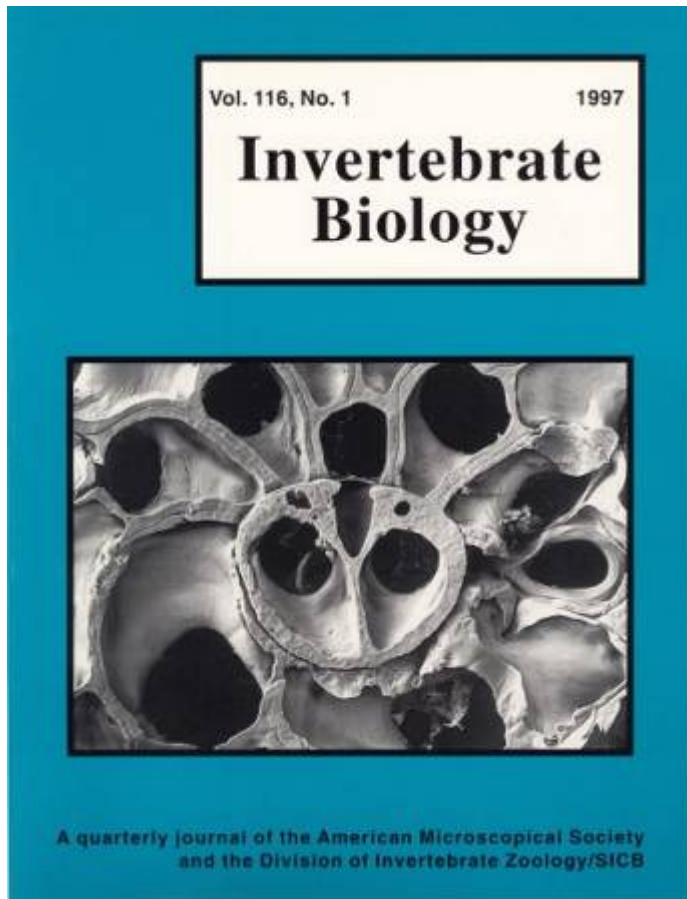
Conference participants have already paid for this volume and will be receiving it by mail.

The Australian Coral Reef Society has released a new book on the Great Barrier Reef. *The Great barrier Reef: Biology, Environment and Management*, edited by Pat A. Hutchings, Mike Kingsford and Ove Hoegh-Guldberg. The 31 chapters include one dealing with bryozoans by Dennis Gordon and Phillip Bock. Order directly from the ACRS website: http://www.australiancoralreefsociety.org/GBR_book.htm.



Featured Cover

Editor's Note: This page continues a series highlighting covers of journals or magazines that feature bryozoans.



Cover description:

The skeleton of this cheilostome bryozoan, seen from the underside, reveals that twin ancestrular zooids (center) jointly founded the colony, marking it as a member of the family Membraniporidae. This species and one other, now placed in the new genus, *Jellyella*, notably encrust substrates floating on the sea surface—including *Sargassum* and the live or dead shells of molluscs (*Janthina* and *Spirula*). *Jellyella* is therefore described as a rare example of a pseudoplanktonic genus among the typically benthic bryozoans.

Related article: Taylor, P. D. and N. Monks. 1997. A new cheilostome bryozoan genus pseudoplanktonic on molluscs and algae. *Invertebrate Biology* 116:39-51.

Previous covers in this series:



4 May 1990

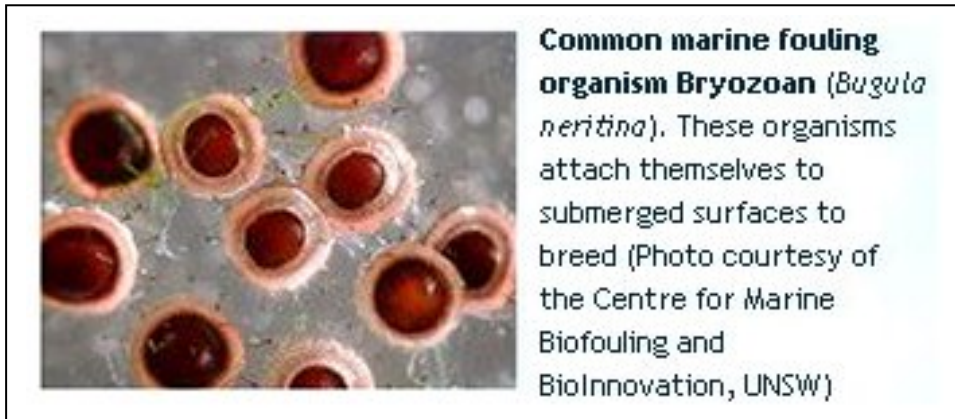


7 Aug 1998

From the IBA Misinformation Department

The photo and caption below were published by the Australian Nuclear Science and Technology Organization in its online journal, *Velocity*. The breeding strategy sounds sinister, and the *Bugula* zooids are shown to be excellent mimics of statoblasts from the freshwater bryozoan, *Pectinatella magnifica*.

Reference: http://velocity.ansto.gov.au/velocity/ans0008/article_05.asp.



Common marine fouling organism Bryozoan (*Bugula neritina*). These organisms attach themselves to submerged surfaces to breed (Photo courtesy of the Centre for Marine Biofouling and BioInnovation, UNSW)

Upcoming Meetings and Conferences

Bryozoa

AustraLarwood Symposium

14-16 March 2009, Melbourne, Australia

For meeting details contact Rolf Schmidt, rschmid@museum.vic.gov.au

IBA Larwood Meeting

21-23 May 2009, Oslo, Norway

Meeting details at: <http://natmus.uio.no/larwood/>

International Bryozoology Association

25-30 July 2010, Kiel, Germany

Contact Priska Schäfer, ps@gpi.uni-kiel.de

Paleontology

American Geophysical Union

14-18 December 2009, San Francisco, California

(No details yet online)

Antarctic Conference of Gondwanan Palaeontology

Mid-2010, Australia (details forthcoming)

<http://www.uq.edu.au/dinosaurs/index.html?page=91899>

The Palaeontological Association

53rd annual meeting for 2009 not yet announced.

International Symposium on the Cretaceous System

12-19 September, 2009, University of Plymouth, UK

<http://www.palass.org/modules.php?name=palaeo&sec=meetings&page=55>

North American Paleontological Convention

21-27 June, 2009 in Cincinnati, Ohio (USA)

<http://www.vertpaleo.org/news/permalinks/2008/04/15/9th-North-American-Paleontological-Convention-/>

5th International Symposium on Lithographic Limestone and Plattenkalk

17-22 August 2009, Naturhistorisches Museum Basel, Switzerland

http://www.geolsoc.ch/events/files/5th_ISLLP.pdf.

Geological Society of America Annual Meeting

18-21 October 2009, Portland, Oregon, USA

<http://www.geosociety.org/meetings/index.htm>

Biology

Aquatic Invasive Species, 16th International Conference,
19-23 April 2009, Montreal, Canada
<http://www.icaais.org/html/program.html>

American Society of Limnology and Oceanography
25-30 January 2009, Nice, France.
<http://www.aslo.org/meetings/nice2009/>

Workshop on Molecular Evolution
12-23 January 2009, Český Krumlov, Czech Republic
<http://workshop.molecularevolution.org/>

Society for Integrative & Comparative Biology
3-7 January 2009, Boston, Massachusetts USA
<http://www.sicb.org/meetings/2009/>

Ecological Society of America
2-7 August 2009, Albuquerque, New Mexico
<http://www.esa.org/albuquerque/>

International Association for Ecology
16-21 August 2009, Brisbane (Australia)
http://www.intecol.net/info-esk/X-INTECOL/10th_INTECOL_Congress-3.htm

International Society of Limnology
August, 2010, Capetown, South Africa
<http://www.limnology.org/news/circular2008.pdf>

Recent Publications

The following list includes works either published since the previous issue of the *IBA Bulletin* or else missed by previous issues. As always, members are encouraged to support future compilations by continuing to send complete citations to the IBA secretary at any time. Reprints will be gratefully received by the IBA archivist, Mary Spencer Jones.

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