

(Use "Bookmarks" to navigate around this document)

News from the Membership

New Members

AustraLarwood 2009 Report

Circular 1: IBA Conference in Kiel

New IBA Awards Program

Request for Identification

Birthday Tribute to Hans Hass

Gisela Illies (Karlsruhe) Dies at 82

PhD Studentship

IBA Website

Have You Seen Me?

Featured Journal Cover

Upcoming Meetings

Recent publications

Copyright © 2009 by the International Bryozoology Association.

Judith Winston, President

Eckart Håkansson, President-elect

Timothy S. Wood, Secretary

Abigail Smith, Treasurer

ISSN 1941-7918

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

tim.wood@wright.edu

Further information at www.nhm.ac.uk/hosted_sites/iba/

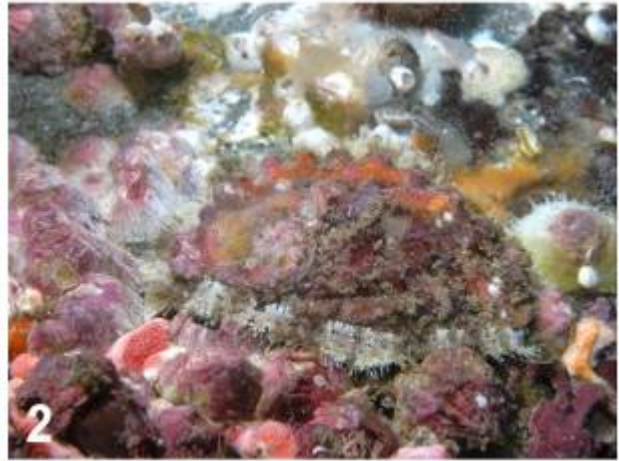
News from the Membership

Alex Gruhl. In January and February I spent five weeks on a Synthesys grant at the Natural History Museum, London. I worked in the lab of Beth Okamura where we studied different developmental stages of *Buddenbrockia plumatellae*, an endoparasite in phylactolaemates. We applied fluorescent staining and confocal laser scanning microscopy in order to reconstruct the architecture and development of the musculature. This was a really nice thing to do, because it turned out that the worms, which look rather unspectacular from exterior, exhibit surprisingly complicated (and beautiful) patterns in their musculature. Furthermore, we used field emission SEM and X-ray tomography to search for additional morphological characters that could help to interpret the strange morphology and phylogenetic affinities of these animals. Currently I am still analyzing large amounts of image data and hope that I can show some images on one of the next meetings. I wish to thank all the people at the NHM who helped to make this an enjoyable and fruitful stay.

Tanya Knowles has been very busy lately. She was examined on her thesis, "Fossil cheilostome Bryozoa of the mid-Pliocene North Atlantic and the inference of environmental regimes", in March and has submitted her final copies to the University of Reading. Whilst awaiting news about a grant to keep her at the NHM, Tanya is starting her new job on 30th March as a technician in the NERC Isotope Geosciences Laboratory at the British Geological Society in Keyworth, Nottingham. Here she will be able to improve her knowledge of isotopic techniques and analysis of data, and hopefully be able to publish more chapters from her thesis. She will be back at the NHM on the odd occasion as she is still writing manuscripts with Beth Okamura and Paul Taylor.

Outside of work, Tanya made her TV debut in February on the new series of the ITV classic quiz show "Krypton Factor". She tried to get bryozoans on the TV but failed - sorry. After five mentally and physically exhausting rounds, Tanya didn't win her heat but is pleased to say that she was beaten by the overall series winner. She is particularly proud to have actually completed the assault course and to have got the geology question right in the general knowledge round. She was almost too afraid to answer it in case she was wrong - the shame would have been unbearable!

Andrew Ostrovsky. Here is news from the Austrian/Middle East front: I recently spent two and half very successful weeks sampling bryozoans in the south-west Oman (near Salalah) in a cooperation with the marine biologist Michel Claereboudt at Sultan Qaboos University (Muscat) (see photos 1-4 below). **Björn Berning** has not yet been to Oman but is working on bryozoans from there anyway (on material that has been collected by his former colleagues from Graz during their holid...err...field trip to that region). Both are also looking at bryozoans growing on a dead *Acropora* reef from the Persian Gulf. In February we have both hosted **Somaye Mohammadpour** for two weeks, who is currently writing up her MSc-thesis on shallow-water bryozoans from SE Iran (see New Members). Photos on next page.



1. Andrey underwater; 2. *Chaliothis maria* (endemic species) with the large bryozoan colony on its shell; .
3. *Electra* sp. on a kelp; 4. Andrey, Michel Claereboudt and local guard in Salalah, Oman.

Lais V. Ramalho. In January I taught a lot about marine bryozoans (Biology and taxonomy) to post-graduate students at Museu Nacional, Universidade Federal do Rio de Janeiro. The course was compound of 6 students which learn and/or making profound study of Bryozoan. It was an interesting week with students of different level of knowledge about the group and from different states of Brazil such as Sergipe, São Paulo, Paraná and Rio de Janeiro States. This course was fully successful and it will be offered again next summer.



After the course, the graduate student Camilla Beatritse spent almost one month studying bryozoans here at Museu Nacional. She is preparing a study about bryozoans from Cagarras Island (Rio de Janeiro States, Brazil) and plans to write her graduate thesis on bryozoans from Paraná States.

John Ryland. I am managing to keep busy during my so-called retirement, having spent much time in recent months chasing alien marine bryozoans in west European waters. *Bugula neritina*, not so long ago considered to have disappeared from British coasts, is back with a vengeance and spreading from marina to marina in southern England and now in Ireland. A paper (with Dan Minchin and Christine Maggs) is in preparation. *Tricellaria inopinata* is doing the same, and is now also present in both Wales and Ireland. The greatest effort and collaboration, however, has gone into trying to sort out some of the taxonomic problems that have beset *Watersipora* for decades (and I first addressed some 35 years ago!). An orange-coloured species has appeared in some marinas, while a blackish form is associated with oyster beds in Atlantic France. With the assistance of Hans de Blauwe (with whom—and accompanied by our wives—we searched for material last May in a beautiful part of Brittany) and Richard Lord, and some key genetic input from Josh Mackie, we have satisfactorily separated *W. subovoidea* and *W. subtorquata* as distinct species, though the identification of blackish colonies (involving opercula and orificial condyles—or SEMs and DNA) cannot be done at low magnification (field workers take note). All the west European specimens, irrespective of colour, belong to *W. subtorquata*, though it seems that the blackish and orange morphs have arrived here by different routes, and the blackish morph corresponds to *W. aterrima* of authors. The paper will appear in *Zootaxa* in due course, and the colour photographs will be available in the on-line PDF, if not in the printed version.

Meanwhile Jo Porter and I continue to battle with *Alcyonidium* from the Pacific coast of North America. My visit in 2005 yielded (thanks to help from John Pearse, Jeff Goddard and Richard Emlett) five undescribed species (i.e. that are not *A. mytili* or *A. polyoum* as they've been named in the past) together with what may, or may not, be *A. parasiticum* (which increasingly looks like being a major problem on its own!) from California and Oregon. Interestingly, only one of the five is larviparous. Jo and I earlier collected what appear to be yet more different species from Friday Harbor (where one has been studied by Mike Temkin, and collected for me by the late Chris Reed) and Bamfield, on the west coast of Vancouver Island. If only they had ovicells and avicularia!

Judy Winston. Due to economic situation we are on furloughs on Mondays at least until July 1, and museum is closed to all on Sunday and Monday. People can reach me Tuesday to Friday at the museum address. I have one new publication from a Smithsonian Symposium volume (see Recent Publications) . It is available at no charge from the Smithsonian's Scholarly Press Website.

http://www.sil.si.edu/smithsoniancontributions/proceedings/sc_RecordSingle.cfm?series=IPY&number=15

Thomas Schwaha recently spent three weeks in Thailand as a guest of the Department of Environmental Science, Kasetsart University. His primary goal was to obtain properly fixed specimens of the freshwater ctenostome, *Hislopia malayensis*, including embryos, larvae, stages of metamorphosis, and developing buds. Shown below with Thomas (second from left) are IBA members Sudathip Seansupha, Tim Wood, and Patana Anurakpongsatorn.



Tim Wood. I recently posted most of my publications online where they can be downloaded as pdf files. While the website is still under construction, the publications part is now fully functional at <http://www.wright.edu/~tim.wood>.

New Member

Somaye Mohammadpour. I'm an MSc student at the University of Tehran working on marine bryozoans. The title of my thesis is "Identification of intertidal bryozoan of Qeshm Island, Persian Gulf" (most bryozoans seem to occur on anthropogenic marine debris cast upon the shore). The first two weeks of February I have spent in Austria, working with (and learning from) Andrei Ostrovsky (Vienna) and Björn Berning (Linz). After my MSc, I would like to continue with a PhD-work on these amazing animals, and possibly study abroad. If you have doublets, reprints or PDFs of any of your works on bryozoans I would be grateful if you could send them to me (see address list; Email: somaye.mohammadpour@gmail.com). For now I'd like to thank Björn and Andrei for their time and efforts as well as Dr. Rahimian (Tehran) for initiating the trip to Austria.

AustraLarwood 2009 Report

Rolf Schmidt

Sometime in 2008 Dennis Gordon, in his gentle, yet very convincing way, told me it would be great to have the next southern hemisphere IBA symposium in Australia. Funny enough I had declined the opportunity the year before, because I thought I was too busy, so I agreed this time. Silly me, this time around I'd have an exhibition redevelopment and a newborn in the mix.



Back row: Pam Beesley, Yvonne Bone, Rolf Schmidt, Michael Keough, Anna Wood, Christine Davis, Robin Mitra. **Middle row:** Pat Cook (now 82), Phil Bock, Eckart Hakansson, Abby Smith
Front row: Dennis Gordon, Catherine Reid, Elisa Bone, John Orbell (Photo by Dennis Gordon)

It all came together in the end, and on Friday the 13th of March a significant contingent of Ectoproctologists showed up at the stylish (albeit in process of major renovations) building of the Royal Society of Victoria.

Abby Smith kicked off the morning session with an update on the skeletal carbonate mineralogy of bryozoans, which included a significant contribution from Chile, as South America has previously been a blank spot on the mineralogical map. Interesting trends and anomalies with regards to phylogeny keep turning up. The significance of mineralogy of marine creatures will only increase as ocean acidification sets in.

Anna Wood then gave a thorough update to her investigations into the global occurrence of modern habitat-forming bryozoans. She was able to show how various known regions of

habitat forming bryozoans are threatened by human impact such as fishing and coastal development.

Phil Bock told us about the large amount of bryozoans on the GBR uncovered during the current Census of Coral Reefs (CReefs). It appears the fauna, though very diverse, is dominated by just a hand-full of genera, namely *Celleporaria*, *Rhynchozoon* and *Parasmittina*, which lends itself to a very descriptive acronym. Phil is also adding this data to the vast database of bryozoans hosted on his site (bryozoa.net/checklists).

After morning tea, Christine Davis gave an update of her research on various biological aspects of *Bugula flabellata* from Otago Harbour.

Robin Mitra detailed the lengths that they are going to control the infestation of water pipeline systems by fresh water bryozoans – a massive task!

Dennis Gordon dazzled us with an overview of current knowledge of modularity and parallel evolution of key innovations in cheilostome Bryozoa (being researched in conjunction with Matthew Dick, Scott Lidgard & Shun Mawatari). Among the most astounding finds is a series of species of *Cauloramphus* that appears to have independently ‘re-evolved’ a frontal shield. Several species display initially membranous ‘anaskan’ morphology, through cribrimorph (with increasingly fused costal spines), right through to a fully fused costal shield with an apparent ascus.

Lunch was followed by a tour of Museum Victoria’s Palaeontology collection and then the Zoology collections.

Upon return to the RSV, Phil Bock tributes.

Catherine Reid catapulted us back into the Palaeozoic to look into the use of bryozoan morphological assemblages (together with other fauna) to establish palaeoecological conditions.

Eckart Håkansson discussed some strange trends in bryozoan phylogeny and morphology in the Danish Basin around the K-T event. Zooid size analyses appear to indicate a temperature spike immediately preceding the K-T boundary.

Pam Beesley gave an update on the ABRS Bryozoa volume, which is rapidly taking shape.

Afternoon tea was followed by Yvonne Bone initiating a discussion on the MART (mean annual range temperature) Technique, which received a lot of good feedback for further investigation.

Michael Keough showed us his research on how bryozoan larval condition affects later colony performance - and vice versa.

Elisa Bone showed us how flexible the nutrient transport system within bryozoan colonies is, allowing them to grow and regenerate very effectively.

Finally Phil Bock elucidated his current progress and future ambitions (and aren't they grand!) for the bryozoan information systems that he has been constructing online.

Symposium Talks

Participants:

Pam Beesley	ABRS, Dept. Environment, Water, Heritage & Arts, Canberra
Phil Bock	Museum Victoria, Melbourne, Victoria, Australia
Elisa Bone	University of Adelaide, South Australia
Yvonne Bone	University of Adelaide, South Australia
Pat Cook	Museum Victoria, Melbourne, Victoria, Australia
Christine Davis	University of Otago, Dunedin, NZ
Dennis Gordon	NIWA, Wellington, NZ
Eckart Håkansson	Western Australia
Michael Keough	Melbourne University, Victoria, Australia
Robin Mitra	Victoria University, Werribee, Victoria, Australia
John Orbell	Victoria University, Werribee, Victoria, Australia
Catherine Reid	University of Canterbury, Christchurch, NZ
Rolf Schmidt	Museum Victoria, Melbourne, Victoria, Australia
Abby Smith	University of Otago, Dunedin, NZ
Anna Wood	University of Otago, Dunedin, NZ

Field Trip

Participants:

Phil Bock	Museum Victoria, Melbourne, Victoria, Australia
Christine Davis	University of Otago, Dunedin, NZ
Dennis Gordon	NIWA, Wellington, NZ
Eckart Håkansson	Western Australia
Robin Mitra	Victoria University, Werribee, Victoria, Australia
Catherine Reid	University of Canterbury, Christchurch, NZ
Rolf Schmidt	Museum Victoria, Melbourne, Victoria, Australia
Abby Smith	University of Otago, Dunedin, NZ
Anna Wood	University of Otago, Dunedin, NZ

The field trip on Saturday morning started well enough when we headed off from Carlton Gardens around 8:30am in a minibus expertly driven by Rolf. Weather looked favourable, until we reached the outskirts of Melbourne and the biggest, most ominous bank of black cloud rapidly moved in from the west. Within no time the rain was bucketing down and the wind was buffeting us. Great! I thought, trust me to pick the only day with a massive downpour within the past 4 months. We finally reached St Leonards pier on the Bellarine Peninsula to find Jan Watson waiting in the pouring rain - not that she cared too much as she was wearing a wet suit. Jeanette Watson (a very sprightly octogenarian!) kindly offered to take her boat out the day before and collect samples off the sea floor, which we collected from the bags she had hung from the jetty. We eventually settled in under a shelter just big enough for all of us to crowd around the spread out samples on two BBQ hot plates (which we didn't turn on), and started sifting through the richness before us. After doing this with bare hands for about quarter of an hour, someone suddenly went "ooh!" – one sample had

apparently included a Blue Ringed Octopus, one of the more deadly sea creatures around Australia (see lyrics below). Thankfully no one got bitten (sure would have put my First Aid skills to the test) and after numerous photographs it was returned to the sea. A couple of hours, some coffee and biscuits, and numerous samples in ethanol later we decided to call it a day for squidgy things, and wend across the road to the pub for some lunch.



Upper photo: Sorting marine booty on the coast SE of Geelong
Bottom left: The two Drs Bone (Yvonne and Elisa)
Bottom right: Eckart, and Phil with a historic specimen of *Adeona grisea* (Museum Victoria)
(Photos by Dennis Gordon)

The afternoon saw the weather clear up, and was spent heading down to Jan Juc beach, where Oligo-Miocene limestone of the Jan Juc Formation include beds full of 'reefs' composed of *Celleporaria*. The cliffs were immediately set upon by numerous geological hammers, much to the bemusement and occasional comment of the large number of surfers. The hard-core palaeos also headed down the beach to look at the younger and muddier sediments of the Puebla Formation, which contain sporadic, but exquisitely preserved fossils (though

frustratingly fragile). Having almost been overtaken by the incoming tide, we headed back to Melbourne (after collecting baby gear on the way for Rolf) where the group fragmented, some going book shopping, some going crepe eating. All in all a good trip.

I would very gratefully like to acknowledge the generous support that the Association of Australiasian Palaeontologists has given to this symposium, contribution AU\$1300 towards the costs (which ended up almost exactly covering the costs, apart from a couple of dollars, which turned out to be a packet of Jam Fancies that didn't get used anyway!)

Scared Weird Little Guys “Come To Australia”

Red back, funnel web, blue ringed octopus
Taipan, Tiger snake, Adderbox and Jellyfish
Stone fish and the poison thing that lives in a shell, that spikes you when you pick it up

Come to Australia
You might accidentally get killed

Your life's constantly under threat
Have you been bitten yet?
You've only got 3 minutes left
Before a massive coronary breakdown

Red back, funnel web, blue ringed octopus
Taipan, Tiger snake, Adderbox and Jellyfish
Big shark, just waiting for you to go swimming
At Bondi Beach

Come on

Come to Australia
You might accidentally get killed
Your blood is bound to be spilled
With fear your pants will be
Filled
Because you might accidentally get killed

(see it as well: <http://www.youtube.com/watch?v=eNEeq5qGh8I>)



15th International Bryozoology
Association Conference
August 02nd - 06th 2010, Kiel



Dear Bryozoologists,

On behalf of the organising team I am very pleased to invite you to the 15th International Bryozoology Association Conference. The conference is hosted by Christian-Albrechts-University in Kiel, Institute of Geosciences. E-mail address is iba2010@gpi.unikiel.de. Convention centre will be lecture hall CAP III on the main campus, Christian-Albrechts-Platz 3. See www.ifg.uni-kiel.de/iba2010 for details and registration.

The conference will take place from August 2nd to 6th 2010. The conference includes five days with lectures and poster sessions, several workshops, and three optional one-day excursions including Lägerdorf quarry (Late Cretaceous), dredging in Kiel Bight, and a visit to the tidal flats at Westerhever). Following the IBA tradition one-week excursions before and after the conference are advertised.

I hope to see as many as possible of you in 2010 in Kiel.

Yours sincerely,

Priska Schäfer

Schedule:

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date						24.07.	25.07.
							Arrival in Copenhagen
Date	26.07.	27.07.	28.07.	29.07.	30.07.	31.07.	01.08.
	Stevns Klint/Fakse	Helsingør Marine Biological Station	Ivo Klak/ Ingaberga	Kristineberg Marine Biological Station	Ferry Fredrikshavn/ Jütland	Gram Quarry/ Arrival in Kiel	Workshops/ Sightseeing in Schleswig
							Icebreaker
Date	02.08.	03.08.	04.08.	05.08.	06.08.	07.08.	08.08.
	Lectures and posters (full day)	Lectures and posters (full day)	Lectures and posters (half day)	Lectures and posters (full day)	Lectures and posters (full day)	Westerhever/ Littorina/ Lägerdorf	Start in Kiel Cologne-Maastricht
	Reception Zoological Museum		Visit of Lübeck (afternoon and evening)	Conference Dinner			
Date	09.08.	10.08.	11.08.	12.08.	13.08.	14.08.	15.08.
	Maastricht (Late Cretaceous)/ Eifel	Eifel (Mid Devonian)	Eifel (Mid Devonian) /Rhine River	Mainz Basin (Tertiary)	Messel / Arrival in Frankfurt	Senckenberg Museum	

	Pre-Conference Trip
	Workshops
	Lectures and posters
	Evening Program
	One-day Trips
	Post-Conference Trip

Workshops:

Several workshops will be arranged for August 1st (Sunday). The following workshops are envisaged

- (1) *Bryozoan Biodiversity on the Web* (organised by Scot Lidgard, Phil Bock, Dennis Gordon, Piotr Kuklinski, Jo Porter, Paul Taylor, Judy Winston and Tim Wood; contact person is Scot Lidgard (slidgard@fieldmuseum.org)).
- (2) *Trepostomate Bryozoa*; contact persons Andrej Ernst (ae@gpi.uni-kiel.de) and Caroline Buttler (caroline.buttler@nmgw.ac.uk).
- (3) *Bryozoan geochemistry and carbonates: proxies for palaeoclimate and environment*. Contact persons are Abby Smith (abby.smith@otago.ac.nz) and Marcus Key (key@dickinson.edu).

One-day fieldtrips:

Several (optional) one-day excursions on August 7th (Saturday) include

- (1) a dredging tour with RV Littorina to Stoller Grund (Kiel Bight) to collect living bryozoans,



RV Littorina



Picking the benthos haul

- (2) a mudflat hiking tour to study the exceptional tidal flat ecosystem off Westerhever (North Sea), and



Westerhever lighthouse



Tidal flat with erosion



Lag deposits with shells

- (3) a visit of Lägerdorf/Kronsmoor quarries North of Hamburg to collect bryozoans from Late Cretaceous chalk facies.

Pre- and post-conference fieldtrips:

Pre-Conference Trip (July 25 – 31): The pre-conference excursion includes palaeontological and zoological sites in Denmark and Danish waters as well as in Sweden. The excursion will start in Copenhagen on July 25th (Sunday) and end in Kiel on July 31st (Saturday). The excursion will be organised and guided by Eckart Håkansson (eckart@geo.ku.dk).



Traditional Viking boat



K/T boundary at Stevns Klint (Denmark)

The following highlights are envisaged: Deep-water coral reefs and bryozoan mounds at Fakse (Danium, Sealand); K-/T boundary at Stevns Klint (Maastrichtium/Danium, Sealand); Helsingør Marine Biological Station and Kristineberg Marine Biological Station (dredging in the Øresund and Kattegat); Ivö and Ingaberga (Sweden), Røndal quarry, Bullberg and Thisted Dome (Jutland), Gram quarry and museum.

Post-Conference Trip (August 08 - 14): The post-conference excursion will start on August 8th in Kiel and end on August 14th (Saturday) in Frankfurt. The excursion led by Andrej Ernst (ae@gpi.uni-kiel.de), Priska Schäfer (ps@gpi.uni-kiel.de) and local guides will visit bryozoan-rich localities such as those in the Maastricht area (Netherlands) (Late Cretaceous including the famous localities studied by E. Voigt), Eifelian Mountains (Middle Devonian) and Mainz basin (Tertiary) and, via Messel quarry (UNESCO world heritage) will



Devonian bryozoans from Eifel Mountains: *Anastomopora* sp.; *Lioclema* sp.; *Intrapora* sp.



end in Frankfurt at the Senckenberg Museum. ***Propalaeotherium parvulum*, Messel (Eocene)**
Senckenberg Museum, Frankfurt

The excursion will include a boat trip on the most scenic section of Rhine River and an evening of wine tasting.

Venue - Climate – Travel – Accommodation

City of Kiel: Kiel is the capital of Schleswig-Holstein and maritime city at the Baltic Sea about 100 km North of Hamburg. It is the major German port to Scandinavia and situated at the eastern entrance to the Kiel Canal.



Seawater aquarium, Liebnitz Institute



Kiel Canal below railroad bridge near Rendsburg

University of Kiel: Christian-Albrechts-University was founded in 1665 Christian Albrecht Duke of Schleswig-Holstein-Gottorf.



Seal of Kiel University



Gottorf castle



Entrance to Schleswig dome

Today, Kiel is an Excellence Centre for marine research and houses a large number of university and independent research institutions devoted to the study of the ocean. Biology and geology, chemistry and physics, international and maritime law, medicine and archaeology find exceptional working conditions.



Dock of Liebnitz Institute for Marine Sciences



Manned submersible JAGO

Climate: July and August are the summer months in Northern Germany. Therefore, visitors may face fairly warm temperatures (18° - 25°C). However, evenings may become chilly and you, therefore, may need a sweater and wind/rain-protecting coat.

Travel: Kiel can be reached via the international airport in Hamburg (Fuhlsbüttel). Many international flights go directly to Hamburg; some international connections may also go through Frankfurt. A public bus shuttle (KIELIUS) serves to connect between Hamburg airport (in front of the arrival hall) and Kiel central bus station (in front of the train station). The bus shuttle service runs every hour. Travel distance between the airport and Kiel is 90 minutes. A city train (S-Bahn) further connects the airport with the main train station in Hamburg (every 20 minutes).

Kiel is connected to Hamburg also by train. Travel distance by train is 100 km (service every hour). For train schedules see: www.bahn.de. The railway station in Kiel is within a distance of 5-7 km to the university campus. Connecting public busses are no. 91 and 92.

Kiel can be reached by public ferries from Scandinavia (Oslo-Kiel: Color line; Göteborg – Kiel: Stena line); service is every day.

Important for those planning to go on field trips: The Denmark field trip starts in Copenhagen, and the post-conference field trip ends in Frankfurt. Participants will have to organise travel to Copenhagen/from Frankfurt themselves.



Impression from Kiel harbour



Kiel during the "Keiler Woche" sailing event

Accommodation: There is a wide spectrum of accommodations in Kiel from medium class hotels (50-110 €/per night + breakfast) to low budget places such as backpacker inns (30 € per night) and youth hostels (16.40 € per night + breakfast). Room sharing will further lower price for accommodation. All places are within a convenient distance (either walking, public bus or hotel shuttle service) from the university campus. Special deals for reduced rates will be available for a limited number of participants in selected hotels – Please check the website for updates.

2010 International Bryozoology Association Awards

The IBA Council is delighted to announce the inaugural International Bryozoology Association Awards. The Awards are supported by the IBA funds and by donations.

The overall aim of the IBA Awards is to support bryozoan research.

In particular, support is usually in the form of a travel grant towards attendance at an IBA conference. We will give priority to supporting students (and others who have limited access to funding sources) who are IBA members and who wish to present their research at an IBA meeting. Awards for the support of research/field work may be advertised and made at the discretion of the Awards Committee.

Application Guidelines:

- a. Applications must be made to the IBA Secretary by email.
- b. Each email application must contain
 - a brief CV and short abstract of the research to be presented (1 page)
 - a description of the project/travel including a budget and information as to whether they have obtained or may obtain support towards the costs from other sources (along with amounts) (1 page)
 - a letter of support (from employers, supervisor, or associate) (1 page)in that order, as a single .pdf document if possible, sent by email to the IBA Secretary.
- c. Applications will be accepted up until 6 months prior to an IBA meeting (i.e., the next deadline is 15 January 2010).
- d. Applicants will be notified within a month of applications closing (15 February 2010).
- e. Amounts awarded and number of awards are at discretion of the committee and dependent on availability of funds. Awards may not be made if there are no suitable applicants. (We envisage that in 2010 only 1 or 2 small grants will be made.)
- f. Anyone receiving an IBA Award for attendance of an IBA meeting must present a paper at that IBA meeting during which they must mention support from IBA Award, and further acknowledge support of the IBA in any related presentation or publication.

Please send applications by email before 15 January 2010 to tim.wood@wright.edu

Request for Identification

Dear Bryozoan fans,

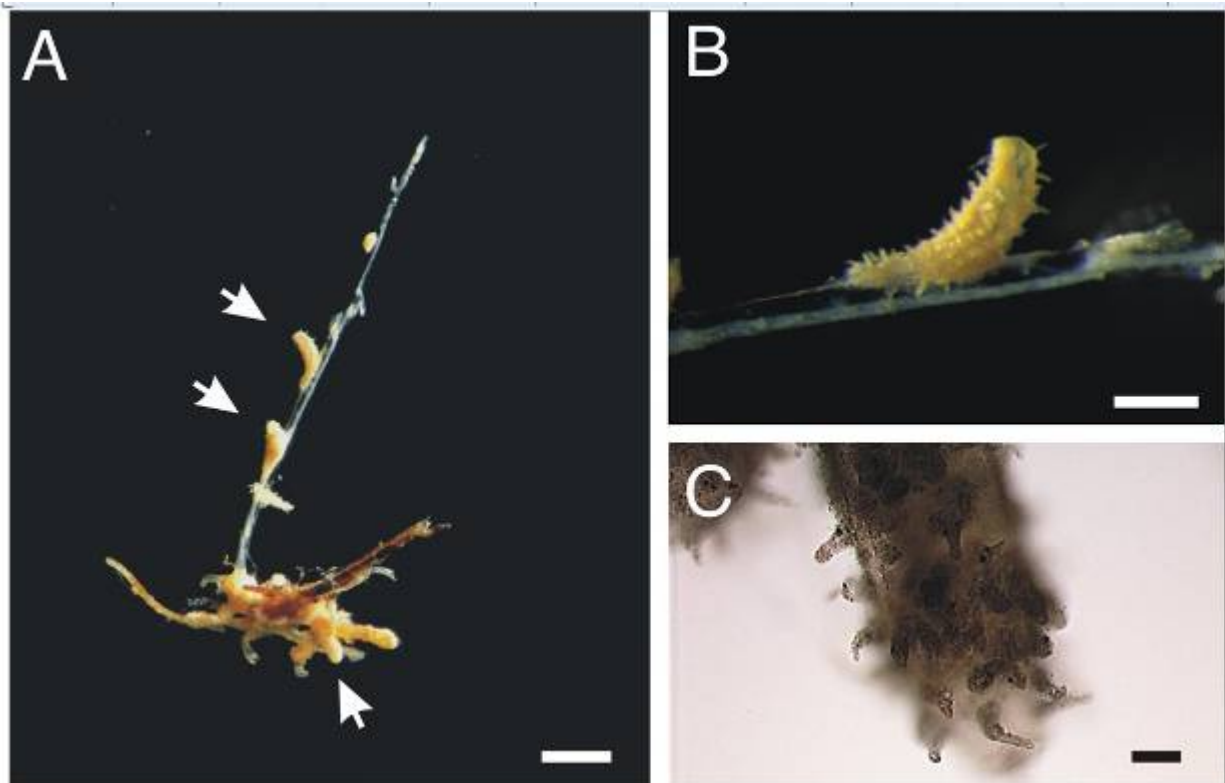
Judith and myself have come across a beautiful, spiny ctenostome bryozoan that we cannot identify. This species does not seem to appear in the North European literature and we wonder whether it may be an exotic, or even new species. We would like to present a short description below and like to ask the bryozoologists if anybody recognizes this little fellow. We are very happy for any comments to matthias.obst@zool.gu.se.

Best regards from the Swedish West Coast,

Matthias Obst & Judith Fuchs

Classification: Bryozoa, Ctenostomata, (possibly *Nolella sp. nov.*?)

Diagnosis: Colony creeping, with semi-solitary zooids, possibly connected by slender stolons. Zooids app. 0.5-1 mm in size, attached to the substratum with the proximal half of the body. Distal part of zooid erect with a terminal orifice. Specimens yellowish. Surface covered with soft spines that incorporate small silt particles. Collection date: 15 June 2008. Location: off Väderöarna, Swedish Skagerrak. Bottom type: soft sediment with gravel. Depth: 313 m.



.Fig. 1. Unknown ctenostome bryozoan species. Stereo- and light microscopic images. A. Several ctenostome zooids (arrows) attached to a hydroid stolon. Scale bar = 1 mm. B. Single ctenostome zooid attached to a hydroid stalk. Scale bar = 0.5 mm. C. Distal part of the ctenostome polypide. The entire zooid is covered with soft spines and the orifice is situated terminal. Scale bar = 60 µm.

A birthday tribute to Professor Hans Hass

Joachim Scholz and Emmy Wöss

“It deserves far more recognition than it has gotten” - in his article written for the IBA Bulletin 2(1) in 2006, Ken McKinney pointed out the “neglected classic” - the PhD work of Hans Hass on reteporid bryozoans that dates back to the year 1948, and turned out to be not only his first but also his last (but lasting) scientific contribution to bryozoology.

Hans Hass was born in 1919 as the son of a lawyer in Vienna, studied Zoology, and started as early as 1938 with underwater photographs, using a camera in a hand made underwater housing. He was also the first one diving deep into submarine caves, where he discovered “red roses made of carbonate” - the reteporids he collected in the Mediterranean for his thesis work.

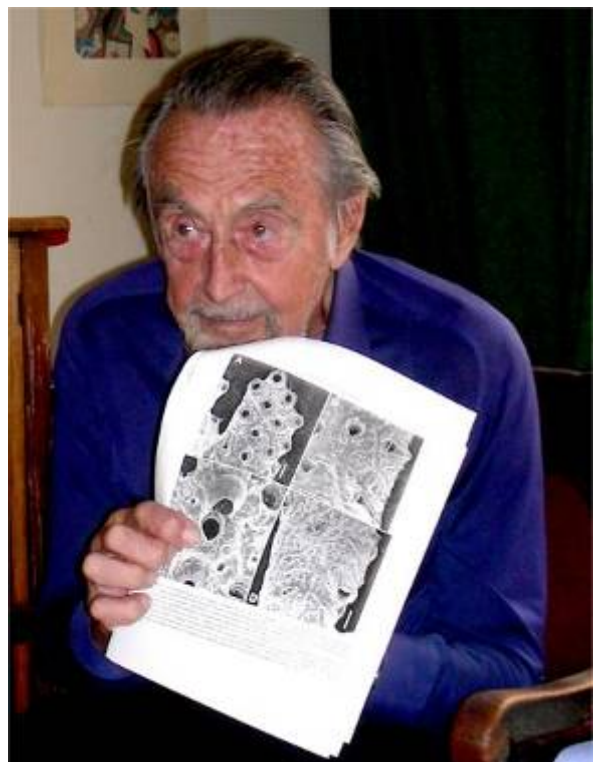
Hans Hass wrote 28 books on his underwater adventures and on evolutionary theory, and produced 105 movies on sharks, whales, corals and coral fishes, and other subjects of the marine realm. The movies were actively supported by his wife Lotte and helped to attract a whole generation of young people to biology, including the authors.

The money Hans Hass earned through his film productions was re-invested to finance two research expeditions, the first “Xarifa” expedition in 1953/54 to the Caribbean, the Galapagos Archipelago and Cocos Islands; and 1957/58, the second “Xarifa” expedition with a team of scientists to the Red Sea, the Maldives, Nicoba and the China Sea. The second expedition alone resulted in about 150 scientific articles written by the participants.

In more recent years, Hans Hass contributed to evolutionary theory and our knowledge about the position of humans, their industries and cultures as integral part of the evolution of life. He called the biosphere transformed by humans a “hypercell” and created a theoretical system that parallels the work of the great Russian geologist, and founder of geobiology, Vladimir Ivanovich Vernadsky (1863-1945).

In 2008, we had the opportunity to talk to Hans Hass in his Vienna office, and were allowed to tape an interview that lasted nearly three hours. Hans Hass looked back to his adventurous bryozoan research in the 1940's, calling it one of the most fascinating and happy episodes in his life. Later in the interview, he shifted to his theory of evolution from an energetic point of view (“Energon”), the evolution of hominids, and the grim perspective of human extinction due to ever-increasing overpopulation pressure. Parts of this interview have been published recently, a contribution supported with illustrations e.g. by Andrej Ernst (Kiel) and Jean Harmelin (Marseille).

When we visited him, Hans Hass did not know yet that a reteporid (phidoloprid) species -



Schizoretepora hassi - was named after him by Harmelin, Bitar & Zibrowius (2007), and he was very delighted to receive a print (see photograph), demonstrating that his sole contribution to bryozoology lives on.

In behalf of the IBA community, we congratulate Hans Hass to his 90th birthday, celebrated on January 23, 2009, and send our sincere best wishes for continued health and happiness to him and to Lotte, his wife.

Fig. 1: Hans Hass studies the article, and taxonomic description of *Schizoretepora hassi* written by Harmelin, Bitar & Zibrowius (2007), on the occasion of the interview he kindly gave us on May 21, 2008, just prior to the Vienna Larwood meeting.

References:

Harmelin, J.-G., Bitar, G. & H. Zibrowius (2007): *Schizoretepora hassi* sp. nov. (Bryozoa: Phidoloporidae) from Lebanon (Eastern Mediterranean) and reappraisal of *Schizotheca serratimargo* (Hincks, 1886). - Cah. Biol. Mar. 48: 179-186.

Hass, H. (1948): Beitrag zur Kenntnis der Reteporiden. - Zoologica 101: 1-138. Schweizerbart'sche Verlagsbuchhandlung. Stuttgart.

Hass, H. (1994): Die Hyperzeller. Das neue Menschenbild der Evolution. - Hamburg (Carlsen). 279 Seiten.

McKinney, F. K. (2006): Hans Hass' „Reteporiden“: A neglected classic? - IBA Bulletin 2(1): 16. International Bryozoology Association.

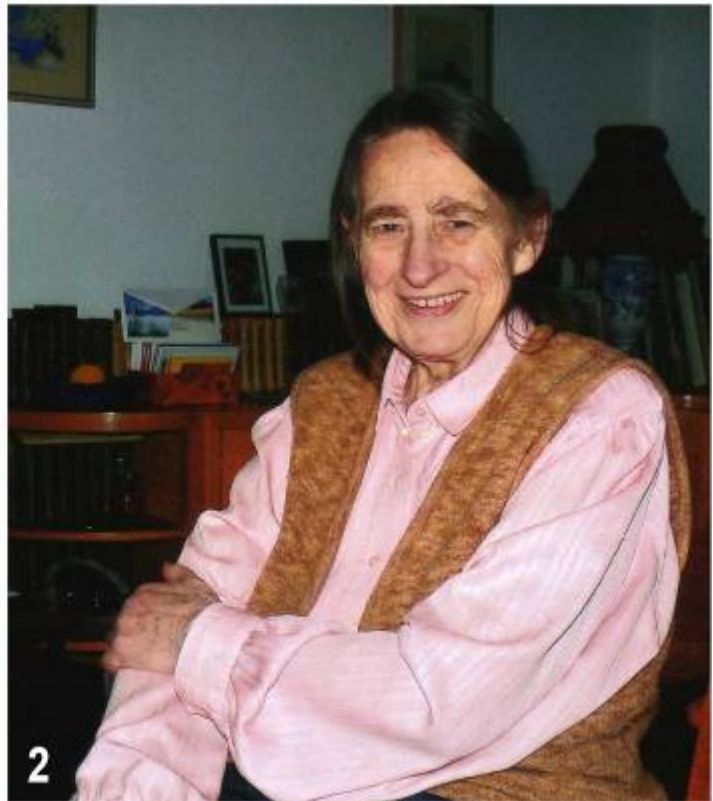
Scholz, J., Wöss, E. & K. Afshar (2009): Leben ist ein Verb – Gespräche mit Hans Hass über Evolution und Meeresforschung. – Natur und Museum 3/4 2009: 102-113. Senckenbergische Naturforschende Gesellschaft, Frankfurt am Main.

Scholz, J. & Wöss, E. (2009, in press): Hans Hass – ein Leben für die Unterwasserwelt. - Biologie in unserer Zeit 2/2009. Wiley-VCH Verlag GmbH & Co., Weinheim

Gisela Illies (Karlsruhe), dies at 82

Joachim Scholz

Gisela Illies, born Kohlrausch, passed away on Monday, December 29, 2008. She was married to Jürgen Henning Illies (1924-1982) who was a well known geologist and tectonics Professor, and taught at Universities in Freiburg and Karlsruhe (Germany), and at the Universidad Austral de Chile in Valdivia (Chile). He accompanied his wife to the IBA conference 1971 in Durham; Gero Hillmer still remembers collecting ammonites with him during the conference field trip. As students of geology-paleontology, both Gisela and Henning Illies were trained by Professor Voigt (fig. 4), and with the last chapter of her life closing, Gisela went home to Hamburg where her bryozoological legacy originated. She was



buried at Henning Illies' side in the Ohlsdorf cemetery, on Monday, January 8 2009.

Fig. 1. Photograph Courtesy: Marcus Illies;

Fig. 2. Photograph Courtesy: Christa Weymann

Between 1953 and 1991, Gisela Illies published 17 articles on bryozoans (see IBA Bulletin 4/3 2008). Her articles were not numerous, but almost no one of those studying cyclostome bryozoans doubts that Gisela Illies' contributions are a source of lasting inspiration, especially those dealing with the genus *Stomatopora*, her ultimate favourite.

Gisela Illies was a regular and welcome visitor at our IBA conferences, including the 9th IBA conference at the University of Wales, Swansea, between 25th July and 1st August, 1992. I still keep a volume of the Paris IBA conference (1989), signed by the participants of the Swansea meeting including Gisela Illies. It was her last IBA meeting. Since that time, she was withdrawn, no longer joining the bryozoan conferences she once loved. Her close friend Mrs. Sigrid Fischer (Karlsruhe) reports that she spent much of her final months reading bryozoan literature, oft looking back. When we visited her in Straehlerweg,

Karlsruhe, in August 2008 (IBA Bulletin 4/3 2008), she pointed out three large maps and several folders, containing unpublished drawings of *Stomatopora*. At that time, she laboured for breath when moving, and weakened by heart disease, she knew that her remaining life span was short. Ehrhard Voigt's bryozoological training carried her through to the end. While sorting parts of her collection and her scientific library for the Senckenberg Museum, she regained some energy, and told us about studying with Ehrhard Voigt, and finally about her new bryozoan contribution: a poster, produced from unpublished *Stomatopora* drawings, partly based on samples she once had borrowed from Professor Voigt. The poster was intended for the 2010 IBA conference in Kiel and she looked forward to an Indian Summer reunion with her old friends.

As James Cagney observed, "Absorption in things other than self is the secret to a happy life."
 She will not come. Let's not forget her.

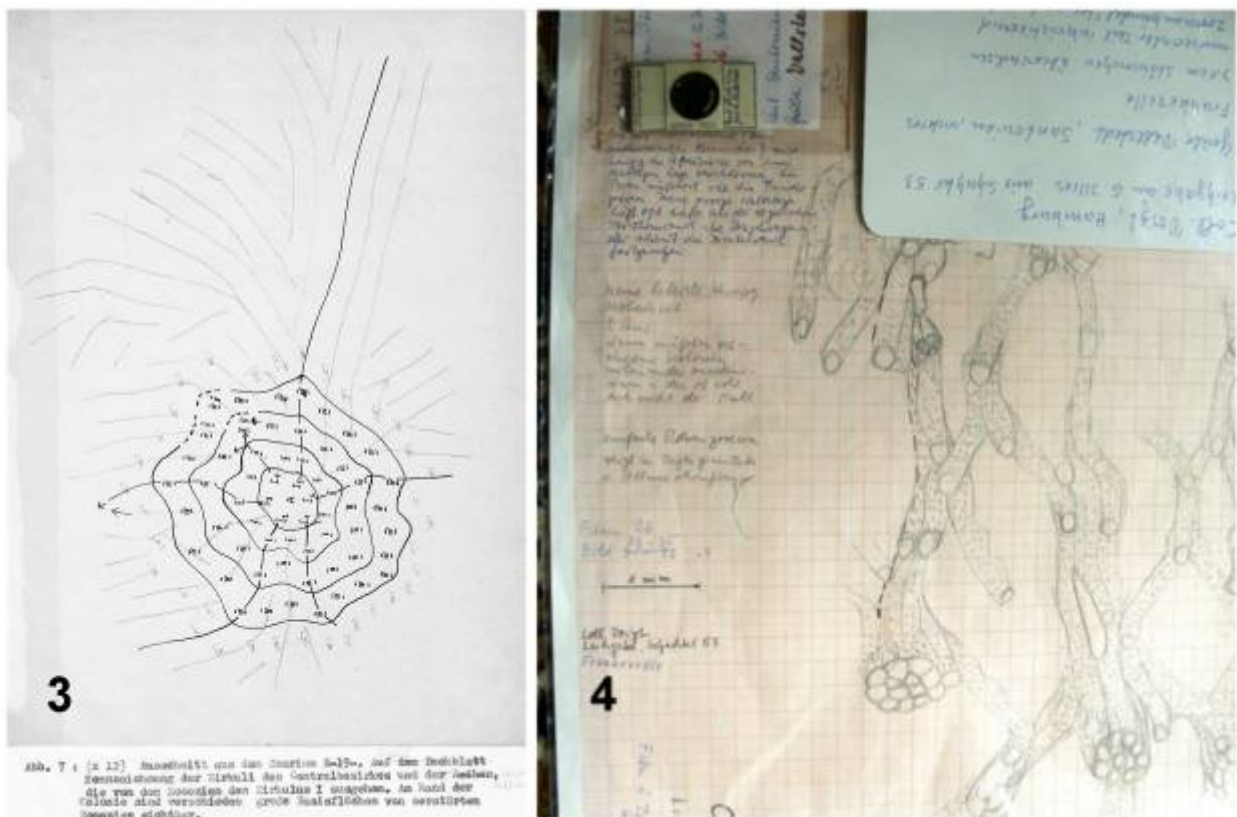


Fig. 3. In her Diploma thesis (1951) on bryozoans collected from the Cretaceous Chalk of Hemmor, Gisela Illies already developed an interest for variability and line drawings of bryozoans, that later became her professional trademark. We found her original diploma thesis in her library, when, on January 27, 2009, we picked up the second part of her collection to be brought to the Senckenberg Museum, kindly mediated by her close friend, Mrs. Sigrid Fischer (Karlsruhe)

Fig. 4. Specimens of Professor Voigt, and drawings by Gisela Illies, as she placed them together to produce a poster for the Kiel 2010 IBA meeting.

PhD Studentship

As part of an EU Grant on the origins of marine biodiversity in the Indo-Pacific, my NHM colleague Ken Johnson and I will be seeking a graduate student to work on Oligocene and Miocene bryozoans from Indonesia. The studentship will probably commence in January 2010. As it is a fully funded Marie Curie PhD Studentship, it is open to applicants of all nationalities apart from the UK (unless based outside Britain for the past three years). Please contact Paul Taylor (pdt@nhm.ac.uk) if you are interested in this studentship or can recommend a student.

IBA Website

IBA Webmaster Rolf Schmidt notes that the IBA web site hasn't been updated for a while, "mainly because the Natural History Museum significantly changed the setup and login around mid-year 2008, and I haven't been able to access it to update it. Despite contacting their web team (who seemed confused when I said I use Adobe Dreamweaver to create web sites) I have had no luck. Phil Bock has suggested we move the whole IBA site to be hosted with his www.bryozoa.net, which makes sense. I am in the process of getting the login details, and hopefully will have the site updated within the next month."

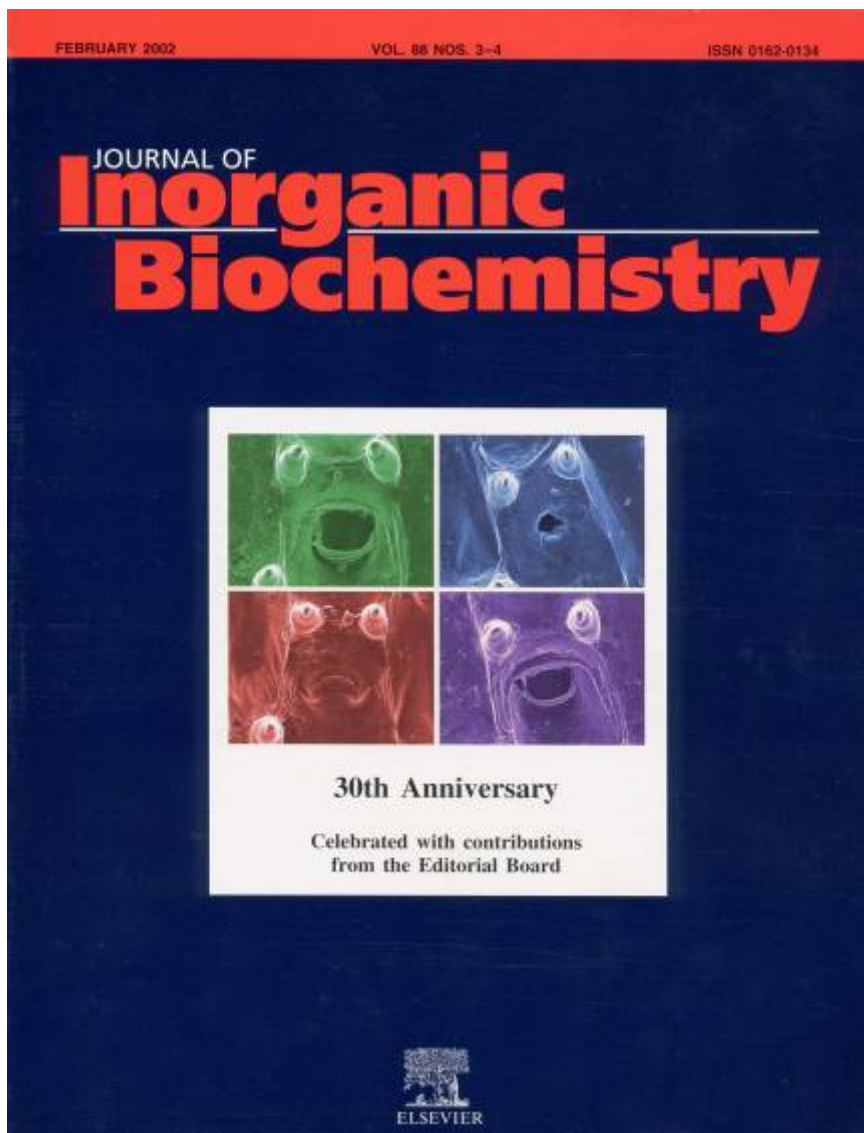
Have You Seen Me?



Have you seen this journal cover? It is from *Science*, 19 June 1984, vol. 224. Here at *IBA Bulletin* publishing headquarters we are having a hard time finding a decent copy for the "bryozoan journal cover" series. Even *Science* archives can offer only a poor quality photo of a well-worn cover. If anyone out there is able to locate a copy in good condition, please scan it and send it to me for the next edition of the *Bulletin*. We may even forward it to *Science* archives to be admired by future generations. And of course your contribution will be gratefully acknowledged in these pages. (Tim Wood)

Featured Cover

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

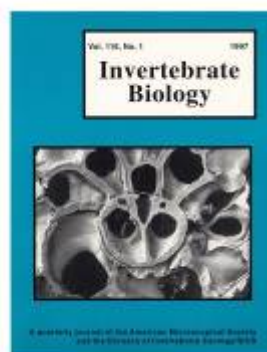


Paul Taylor contributed this bryozoan cover to the series. The bryozoan is a digitally “enhanced” *Membranipora*, and the journal contains the paper:

Hall, S.R., Taylor, P.D., Davis, S. and Mann, S. 2002. Electron diffraction studies of the calcareous skeletons of bryozoans. *Journal of Inorganic Biochemistry* **88**, 410-419.

Paul writes, “I wonder what impression this has given the inorganic biochemists of the world about bryozoans?”

Previous covers in this series:



Upcoming Meetings and Conferences

Bryozoa

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
2009 Joint Assembly
24-27 May, 2009, Toronto, Canada
<http://www.agu.org/meetings/ja09/>

American Geophysical Union
Ocean Sciences Meeting
22-26 February 2010, Portland, Oregon
<http://www.agu.org/meetings/os10/>

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.icaiss.org/html/program.html>

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.

- Abdel-Salam, K. M. and S. E. Ramadan (2008). Fouling Bryozoa from some Alexandria harbours, Egypt. (I) Erect species. *The Mediterranean Marine Science Journal* 9(1): 31-47.
- Abdel-Salam, K. M. and S. E. Ramadan (2008). Fouling Bryozoa from some Alexandria harbours, Egypt. (II) Encrusting species. *The Mediterranean Marine Science Journal* 9(2): 5-20.
- Berning, B. (2008). Evidence for sublethal predation and regeneration among living and fossil ascophoran bryozoans. Pp 1-5 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) *Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference, Boone, North Carolina, July 1-8, 2007, Virginia Museum of Natural History. Special Publication No. 15, Martinsville, Virginia.*
- Buttler, C. J., P. N. Wyse Jackson and M. M. Key, Jr (2008). Bryozoa from the Ordovician (Caradoc) of Courtown, County Wexford, Ireland. Pp. 9-18 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) *Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference, Boone, North Carolina, July 1-8, 2007, Virginia Museum of Natural History. Special Publication No. 15, Martinsville, Virginia.*
- Carter, M. e. C., D. P. Gordon and J. P. A. Gardner (2008). A preliminary analysis of avicularian morphology. Pp 19-28 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) *Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference, Boone, North Carolina, July 1-8, 2007, Virginia Museum of Natural History. Special Publication No. 15, Martinsville, Virginia.*
- Denisenko, N. V. (2008). Bryozoans of the Chukchi Sea and the Bering Strait. Fauna and zoogeography of zoobenthos of the Chukchi Sea. *Explorations of fauna of the seas. B. I. Sirenko and S. V. Vasilenko. St. Petersburg, ZIN RAS Press. 61 (69): 163-200.*
- Ernst, A. (2008). New data on the Middle Devonian bryozoans of Germany. Pp 29-35 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) *Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference, Boone, North Carolina, July 1-8, 2007, Virginia Museum of Natural History. Special Publication No. 15, Martinsville, Virginia.*
- Ernst, A., B. Senowbari-Daryan and K. Rashidi (2009). Rhabdomesid and cystoporid bryozoans from the Permian of Deh-e Mohammad, Shotori Mountains (northeastern Iran). *Geobios* 42(2): 133-140.
- Gordon, D. P., A. M. Hosie and M. C. Carter (2008). Post-2000 detection of warm-water alien bryozoan species in New Zealand - the significance of recreational vessels. Pp. 37-48 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) *Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference, Boone, North Carolina, July 1-8, 2007, Virginia Museum of Natural History. Special Publication No. 15, Martinsville, Virginia.*
- Gruhl, A., I. Wegener and T. Bartolomaeus (2009). Ultrastructure of the body cavities in Phylactolaemata (Bryozoa). *Journal of Morphology* 270(3):306-318 270(3): 306-318.

- Handschuh, S., T. Schwaha, N. Z. Neszi, M. G. Wald and E. R. Wöss (2008). Advantages of 3D reconstruction in bryozoan development research: tissue formation in germinating statoblasts of *Plumatella fungosa* (Pallas, 1768) (Plumatellidae, Phylactolaemata). Pp 49-55 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) *Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference*, Boone, North Carolina, July 1-8, 2007, Virginia Museum of Natural History. Special Publication No. 15, Martinsville, Virginia.
- Hartikainen, H., S. L. L. Hill and B. Okamura (2008). Distribution and conservation of *Lophopus crystalinus* in the UK. Pp 57-64 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) *Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference*, Boone, North Carolina, July 1-8, 2007, Virginia Museum of Natural History. Special Publication No. 15, Martinsville, Virginia.
- Hirose, M., M. H. Dick and S. F. Mawatari (2008). Molecular phylogenetic analysis of phylactolaemate bryozoans based on mitochondrial gene sequences. Pp 65-74 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) *Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference*, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.
- Hondt, J.-L. and D. Ben Ismail (2008). Bryozoaires des cotes algériennes. Compléments aux Bryozoaires de Tunisie. *Bull. Soc. zool. Fr.*, 1-3: 55-71.
- Key, M. M., P. N. Wyse Jackson, K. E. Miller and W. P. Patterson (2008). A stable isotope test for the origin of fossil brown bodies in trepostome bryozoans from the Ordovician of Estonia. Pp 103-127 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) *Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference*, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.
- Keynes, R. D. (2003). From bryozoans to tsunami: Charles Darwin's findings on the Beagle. *Proceedings of the American Philosophical Society*. 147(2): 103-127.
- Knowles, T. (2008). The cheilostome bryozoan *Floridina* from Plio- Pleistocene deposits of the coastal plain of North America. Pp 85-92 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) *Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference*, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.
- Komatsu, T., K. Yoshihara, M. H. Dick, R. Takashima, A. N. Ostrovsky and H. Nishi (2008). Habitats of bivalves in the Lower-Cretaceous Aptian Tanohata and Aptian to Albian Hiraiga Formations, Iwate Prefecture, Northeastern Japan. *Proceedings of the International Symposium Origin and Evolution of Natural Diversity*. H. Okada, S. F. Mawatari, N. Suzuki and P. Gautam. Sapporo: 163-170.
- Kuklinski, P., D. K. A. Barnes and M. Wlodarslw-Kowalczyk (2008). Gastropod shells, hermit crabs and arctic bryozoan richness. Pp 93-100 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) *Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference*, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.
- Kuklinski, P. and P. D. Taylor (2008). Are bryozoans adapted for living in the Arctic? Pp 101-110 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) *Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference*, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.

- Larwood, G., E. V. Voigt and J. Scholz (2008). Paleoeological, morphological and taxonomical aspects of the pelmatoporinid genus *Ubahgsia* Jullien from the Maastricht Chalk. Pp 111-121 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.
- Lidgard, S. (2008). How should we consider predation risk in marine bryozoans? Pp 123-131 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.
- Massard, J. A. and G. Geimer (2008). Global diversity of bryozoans (Bryozoa or Ectoprocta) in freshwater: an update. Bulletin de la Société des Naturalistes luxembourgeois. 109: 139-148.
- Massard, J. A. G., Gaby (2008). Occurrence of *Plumatella emarginata* Allman, 1844 and *P. casmiana* Oka, 1908 (Bryozoa, Phylactolaemata) in Lake Pamvotis (Ioannina, Greece). [download: http://massard.info/pdf/SNL_2008_109_133_138.pdf]. Bulletin de la Société des Naturalistes luxembourgeois. 109: 133-138.
- McKinney, F. K. (2008). Taxonomic notes on Semicoscinium Prout and other 19th century fenestrate Bryozoa from the USA. Pp 133-141 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.
- Nakrem, H. A. and A. Ernst (2008). Arcticoporidae fam.nov. (Bryozoa, Trepostomata) from the Lower Triassic of Ellsmere Island (Canada) with remarks on some other Triassic bryozoans. Pp 143-152 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.
- Nalin, R. and G. Braga (2008). Late Pleistocene bryozoans from the deposits of Capo Colonna Marine Terrace (Calabria, Italy). Pp 163-175 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.
- Nehyba, S., K. Zágorský and K. Holcová (2008). Stable isotope composition of bryozoan skeletons from Podbrežice (Middle Miocene, Central Paratethys, South Moravia, Czech Republic). Pp 163-175 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.
- Nikulina, E. A. and P. Schäfer (2008). An evaluation of the monophyly of the genus *Electra* Lamouroux, 1816 (Bryozoa, Cheilostomata) with phylogenetic analyses of ribosomal genes. Pp 177-185 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.
- Novosel, M., B. Radić and A. Požar-Domac (2008). Exceptional bryozoan diversity along the cliff of Sušac Island, Adriatic Sea. Pp 187-193 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) Bryozoan Studies 2007: Proceedings of the 14th International

- Bryozoology Association Conference, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.
- Ostrovsky, A. N. (2008). Brood chambers in cheilostome Bryozoa: diversity and revised terminology. Pp 193-205 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.
- Ostrovsky, A. N., P. D. Taylor, M. H. Dick and S. F. Mawatari (2008). Pre-Cenomanian cheilostome Bryozoa: current state of knowledge. Proceedings of the International Symposium Origin and Evolution of Natural Diversity. H. Okada, S. F. Mawatari, N. Suzuki and P. Gautam. Sapporo: 69-74.
- Ostrovsky, A. N. and I. Y. Popov (2008). Freshwater pearl-mussel *Margaritana margaritifera* (Unionidea, Margaritanidae) in the rivers of the reserved area Gladyshevskii (Leningrad oblast). [in Russian with English Summary]. Zoologicheskii Zhurnal 87(5): 624-625.
- Ostrovsky, A. N. (2008). Repeated evolution of placental analogues in Bryozoa. Abstracts of the 1st International Congress on Invertebrate Morphology, Copenhagen. Journal of Morphology 269(12): 1475.
- Ostrovsky, A. N., C. Nielsen, N. Vavra and E. B. Yagunova (2009). Diversity of the brooding structures in calloporod bryozoans (Gymnolaemata: Cheilostomata): comparative anatomy and evolutionary trends. Zoomorphology 128(1): 13-35.
- Ostrovsky, A. N., D. Gordon and S. Lidgard (2009). Independent evolution of matrotrophy in the major classes of Bryozoa: transitions among reproductive patterns and their ecological background. Marine Ecology Progress Series 378: 113-124.
- Pachut, J. F. and R. L. Anstey (2008). A coded character-based analysis of evolutionary modes in the Middle and Upper Ordovician bryozoan genus *Peronopora*. Pp 213-220 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.
- Pachut, J. F. and R. L. Anstey (2008). Rates of anagenetic evolution in three morphometric characters in species of *Peronopora* from the Middle and Upper Ordovician. Pp 213-220 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.
- Porter, J. S. and V. F. Lenihan (2008). A historical review of bryozoan genetic research from 1970 to 2007. Pp 221-234 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.
- Ramalho, L. V., G. Muricy and P. D. Taylor (2008). Two new species of Bitectiporidae (Bryozoa, Ascophora) from Rio de Janeiro State, Brazil. Pp 235-241 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.
- Reid, C. M. and N. P. James (2008). Climatic response of late paleozoic bryozoans: diversity and composition of Gondwanan faunas. Pp 243-250 in Hageman, S. J., M. M. J. Key, Jr.

- and J. E. Winston (eds) *Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference*, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.
- Ross, J. R. P. and C. A. Ross (2008). Southern Tasmanian Upper Ordovician Bryozoa. Pp 251-259 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) *Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference*, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.
- Rosso, A. (2008). Mediterranean setoselliniforms and their exploitation of small sized substrata. Pp 261-268 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) *Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference*, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.
- Rosso, A. (2008). *Leptichnus tortus* sp. nov., a new etching trace and remarks on other bryozoan-produced fossil traces. *Studi Trentini di Scienze Naturali, Acta Geologica* 83.
- Rosso, A. and R. Sanfilippo (2009). The contribution of bryozoans and serpuloids to coralligenous concretions from SE Sicily. In: ,(Tabarka,): 123- 128. UNEP-MAP-RAC/SPA Proceedings of the First Symposium on the Coralligenous and other calcareous bio-concretions of the Mediterranean Sea, 15-16 January, 2009, Tabarka.
- Ryland, J. S. and J. S. Porter (2008). The distribution of *Alcyonidium* species (Bryozoa) in Orkney and Shetland, with faunistic notes on some locations. *Shetland Naturalist* 2: 129-146.
- Schäfer, P. and B. Bader (2008). Geochemical composition and variability in the skeleton of the bryozoan *Cellaria sinuosa* (Hassall): biological versus environmental control. Pp 269-279 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) *Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference*, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.
- Schneider, C. L. (2008). Substrate preferences of Middle and Late Devonian *Hederella* from the midcontinent USA. Pp 281-294 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) *Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference*, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.
- Taylor, P. D. and M. A. Wilson (2008). Morphology and affinities of hederelloid Bryozoans. Pp 301-309 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) *Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference*, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.
- Taylor, P. D. (2009). Bryozoans from the Middle Jurassic of Balin, Poland: a revision of material described by A.E. Reuss (1867). *Annalen des Naturhistorischen Museums in Wien, Serie A*. 110: 17-54.
- Taylor, P. D. (2009). Bryozoans from the Middle Jurassic of Balin, Poland: a revision of material described by A.E. Reuss (1867). *Annalen des Naturhistorischen Museums in Wien, Serie A* 110: 17-54.
- Vávra, N. (2008). Bryozoans of the Retz Formation (Early Miocene, Austria) - a high-energy environment Case Study. Pp 311-319 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) *Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference*, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.

- Winston, J. L. (2008). Bryozoans of the Mangreef. systematics of bryozoans from a mangrove algal habitat in the Pelican Cays, Belize, 1. Cheilostomata, Aeteidae. Pp 321-328 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) *Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference*, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.
- Winston, J. E. and R. M. Woollacott (2008). Redescription and revision of some red pigmented species of *Bugula*. *Bulletin of the Museum of Comparative Zoology*. 159: 179-212.
- Winston, J. E. (2009). Cold comfort: systematics and biology of Antarctic bryozoans. *Smithsonian at the Poles. Contribution to International Polar Year Science*. I. Krupnik, M. A. Lang and S. E. Miller. Washington, D.C., Smithsonian Institution Scholarly Press: 205-221.
- Wood, T. S. (2008). Development and metamorphosis of cyphonautes larvae in the freshwater ctenostome bryozoan, *Hislopia malayensis* Annandale, 1916. Pp 339-346 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) *Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference*, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.
- Wöss, E. R. (2008). The relative importance of different modes of reproduction and dispersal in *Plumatella fungosa* (Phylactolaemata: Plumatellidae). Pp 329-338 in Hageman, S. J., M. M. J. Key, Jr. and J. E. Winston (eds) *Bryozoan Studies 2007: Proceedings of the 14th International Bryozoology Association Conference*, Boone, North Carolina, July 1-8, 2007. Virginia Museum of Natural History, Special Publication No. 15, Martinsville, Virginia.
- Yagunova, E. B. and A. N. Ostrovsky (2008). Encrusting bryozoan colonies on stones and algae: variability of zooidal size and its possible causes. *Journal of the Marine Biological Association of the United Kingdom* 88(5): 901-908.
- Yagunova, E. B. and A. N. Ostrovsky (2008). Encrusting colonies of Bryozoa: life in two dimensions. *Global Marine Environment. Journal of the Marine Biological Association of the United Kingdom* 8: 2-3.
-