Bulletin

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Further information at www.bryozoa.net/iba

News from the Membership

Priska Schäfer, Andrej Ernst, and Joachim Scholz. We would like to inform the IBA community, that the conference volume of "Bryozoan studies 2010" is in good progress. We intend to have the volume published in spring 2012. Best wishes from Kiel!

Alex Gruhl. I am very pleased to have received an EU Marie Curie post-doctoral fellowship to work for two more years with Beth Okamura at the NHM in London. In this project we will continue research on myxozoan parasites, with a specific focus on development and evolution of major body plan features in this group. And of course I will also not neglect their hosts - bryozoans! More soon on one of the next meetings!

Masato Hirose. Recently, I have got postdoctoral fellow in the National Museum of Nature and Sciences Tokyo. I was very busy at preparing for moving from Sapporo to Tsukuba in March.

My new address is below,

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However, our laboratory (research section of our museum) will move to Tsukuba in August. Then I inform you the new address again.

We all had almost no damage by the earthquake on 11th March in Sapporo, however Tsukuba (where I live now) and Tokyo were somewhat damaged by the earthquake. I was planning to visit Otsuchi Town in Iwate Prefecture for collecting on April and July, this year. Unfortunately, however, Otsuchi was attacked by Tsunami on 11th March and everything disappeared. The marine biological station in Otsuchi was also heavily damaged with their research vessel sunk. The only good news is that nobody in the biological station was killed.

Maybe I cannot continue a part of my study at Otsuchi in the next two or three years, at least. Currently, we are conserving electricity during summer, because of the nuclear crisis in Fukushima causing a power shortage in Tokyo. The effect of radioactive substances from Fukushima seems to be not serious in Tokyo and Tsukuba.

So, except the difficulty of electricity, everything alright with me now.

Abby Smith. Further to my photo of a knitted bryozoan (IBA Bulletin 7(1)), I have had this email from **Roger Cuffey.** Apparently his obsession with bryozoans extends to toys and ties! His email below explains...

Hi,
Years ago, I designed (and I and my ex-wife sewed/knitted) small-kid's stuffed toys bryozoans (based on branching trepostome colonies), sweater (with white acanthocladiid), mittens, and painted ties (various colony forms). Your knitted bryozoan zooid/polyp is also a great achievement! :)

Roger

Aaron O'Dea. The only news here is my second child (Lorenzo) was born 2nd May, much to the disappointment of my friends who always said I should have two children and name them Brian and Zoe! A paper is in press on K-T bryozoa with Paul, Eckart and Beth. So in fact I should really have three kids and name them Katie, Brian and Zoe!

Andrew Ostrovsky and **Björn Berning.** At the end of June we gave a more than complete short course on bryozoans to the Marine Palaeo-Biology Working Group around Sérgio Ávila at the University of the Azores (Ponta Delgada). During five days of lectures and discussions we introduced the participants to the peculiarities of colonial organisms in general, and of course to the anatomy, physiology, reproduction, life cycle, ecology, evolution, and biogeography of bryozoans in particular. Owing to the equally indefatigable and successful attempts of Sérgio to acquire external funding for palaeo-biological field trips with a range of international researchers, and also for several workshops per year that cover a wide variety of topics, the islands will remain a drop-in-centre of prime importance for anyone studying island and seamount faunas. We would like to thank Sérgio and his colleagues for organising this short course as well as the Government of the Azores for funding it, and we already look forward to our next visit!

Kevin Tilbrook. I'd just like to let the general IBA populace know that I have succeeded in putting together the bones of a Scratchpad website on the Great Barrier Reef Bryozoa. It is in a fairly preliminary state at the moment, but does have an hierarchical list of approx. 350 bryozoan species there, gleaned from the literature by Phil Bock and Dennis Gordon. I will

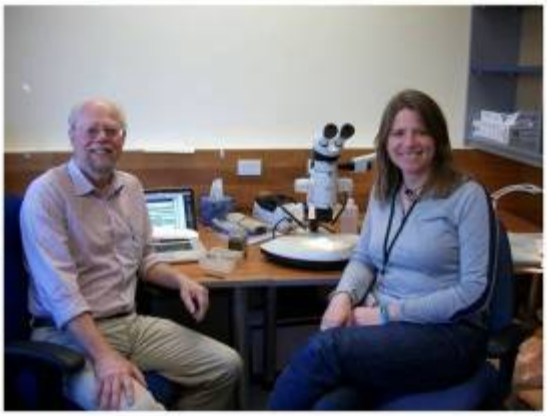
be adding to this list following my examination of the CReefs Expeditions' material. A preliminary assessment sees Phil and I adding approx. 50 species to the 125 described from Heron Island by Pete Hayward and John Ryland. I have SEM-ed over 80 of the Heron Island species to date and I will be attaching these images to the respective pages in due course. Go take a look and please feed back to me any ideas you have. I want this to be a usable resource for us all, as well as non-bryozoan specialists, be they in academia or not.

See my work at http://greatbarrierreefbryozoa.myspecies.info/

The following from **Catherine Reid** via Abby Smith following the latest big aftershock in Canterbury

HI Abby, Yes chaos again, this time just in time for exams. Although everything is now back underway. My house etc is fine, the bulk of the damage in the eastern suburbs is a repeat of last time, rather than new damage, but heartbreaking for those who have been without wastewater for 9 months. With luck that was the last 6. I am also now very much looking forward to the sabbatical that I have starting in September. Will be bliss.

Andrea Waeschenbach. As already reported by **Abby Smith** in the last IBA Bulletin, I spent three fabulous weeks in New Zealand last March. Two of these weeks were spent at the Portobello Marine Lab in Dunedin, where Abby generously allowed me to take sub-samples of the ethanol-preserved material she collected during three research cruises to the Snares, Puysegur and the Otago Shelf. These samples of frequently endemic species are destined for a future molecular phylogeny project, I'm hoping to embark on. Following on from this, **Dennis Gordon** hosted me at NIWA in Wellington for the remainder of my stay, during which he liberally shared his extensive knowledge of bryozoans, whilst seeding exciting ideas on bryozoan evolution and how an improved phylogenetic framework can be used to test hypotheses about the evolution of frontal wall morphologies and the origins of polymorphs such as avicularia and ovicells.

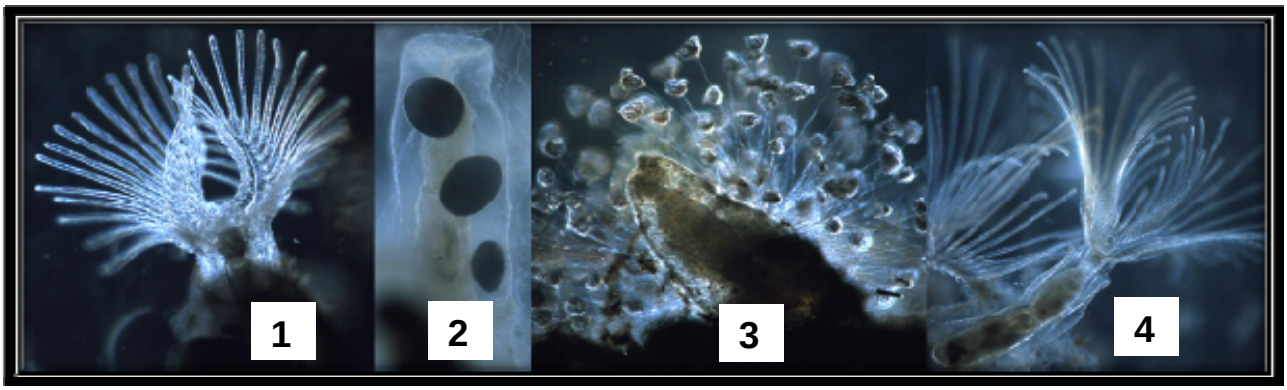


Unfortunately, the third part of the trip, the Australarwood Meeting, had to be postponed due to the Christchurch earthquake, but I'm glad to read in **Catherine Reid's** report in the last IBA Bulletin that teaching has resumed, if in a somewhat different format.

So, many thanks to Abby and the welcoming people at the Portobello Marine Lab and to Dennis for being tremendous hosts and for making my visit to New Zealand productive as well as fun.

New Members

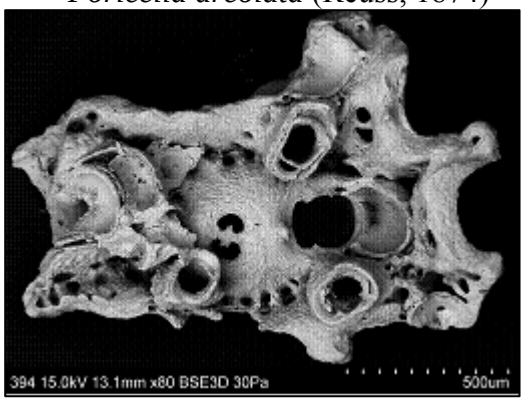
Montserrat D. Reyes-Flores. I am an undergraduate student of biology at the Universidad Autonóma de Aguascalientes, México. Thanks to advice, support and confidence of my current advisor Dr. Marcelo Silva-Briano. I started to work with freshwater bryozoans in the state of Aguascalientes. We have 32 samples from different water bodies. Also, I have pictures and fixed preparations of these organisms. Today, the identification process of some species of bryozoans like *Plumatella* spp., and *Lophodella carteri* is done. Is very important for me to be part of IBA, and want to have the opportunity to contact specialists in this field, because in my country there are not researchers of freshwater bryozoans.



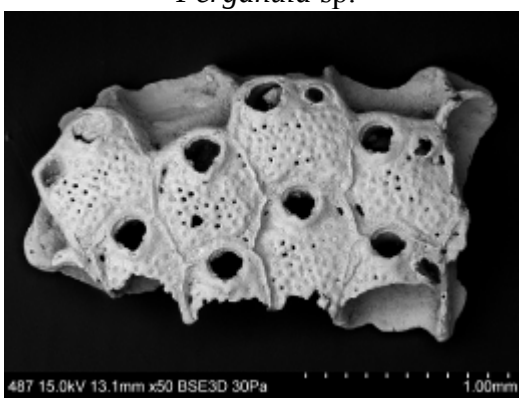
Tereza Tomaštíková. I am a student of palaeontology at the Faculty of Science at Masaryk University in Brno (Czech Republic). I finished my thesis about Miocene Bryozoa from the locality Židlochovice in the Carpathian Foredeep under the leadership of Dr. Kamil Zágoršek (National Museum in Prague) this year. I presented the main results of the thesis at 10th Larwood meeting in Santiago de Compostela in Spain. I have devoted to a systematic determination of Bryozoa and interpretations of paleonvironmental reconstructions on the locality.

I wish to study for a PhD and continue to deal with bryozoans from other localities from the Moravian part of the Carpathian Foredeep. I would like to make a quantitative analysis of the biodiversity of Bryozoa from the selected boreholes by counting the specimens and to measure size of autozooecia together with quantitative and qualitative analysis of distribution and incidence of the ovicells and avicularia of selected genera to refine the paleonvironmental reconstructions of Miocene life in Carpathian Foredeep.
The photos below show a newly discovered species at the locality Židlochovice.

Poricella areolata (Reuss, 1874)



Ferganula sp.



Frank Kenneth (Ken) McKinney
1943–2011

Patrick Wyse Jackson, IBA President

On 9th April, just four days short of his 68th birthday, Ken McKinney died at his home outside Boone, North Carolina. With his passing we have lost a giant in our field, and his death will leave a void felt by many: his family and friends, the Appalachian State University community, members of his local church, and the scientific community at large. Ken was a wonderful man whose life touched many.

He was born on 13th April 1943 in Birmingham, Alabama. His father and he shared the first name Frank, which led to him being called Ken by his family and those who knew him. Growing up in Alabama in the 1940s and 50s was tough, and his father worked long hours and often weekends simply to support his wife, son and daughter. Ken was educated first at Birmingham Southern College where he spent three years, and then when Wiley Rogers moved to Old Dominion College, Norfolk, Virginia he took Ken and two other undergraduates engaged on a research project with him. Ken he majored in geology, graduating 1964. Ken's earliest papers date from this period and included some on trilobites and sponges (1963, 1964); these were coauthored with Marjorie Jackson (who was a fellow student at Birmingham Southern, and who also hailed from Birmingham). They were married the summer Ken graduated from Old Dominion and together moved as graduate students to the University of North Carolina, Chapel Hill. For his masters thesis he was reluctantly (but fortuitously) drawn to the study of bryozoans following a discussion with his supervisor (see next article in this issue). He graduated in 1967 with a Master in Science and later published his thesis as the monograph entitled *Nonfenestrate Ectoprocta (Bryozoa) of the Bangor Limestone (Chester) in Alabama* (1972). He then embarked on his doctoral studies on Middle Ordovician trepostome bryozoans of Alabama (published 1971) and graduated 1970.

Ken was appointed to the faculty of the Appalachian State University in 1968 and was a founding member of the Department of Geology. This college had been established in 1899 as a teacher-training college but later diversified in terms of the curriculum. It offered primary degrees but did not offer, nor continues to offer a graduate programme. Ken threw himself into teaching, and it is clear that he was an inspiring teacher, educator and mentor to his students. He devised thought-provoking and stimulating practical courses in historical geology, paleobiology and field geology and many of the former were eventually published in 1991 as *Exercises in Invertebrate Paleontology*, a volume illustrated by Marg. Much of his teaching was driven by his own personal research so that students were made aware of cutting-edge themes in geology. It is not surprising that although he wasn't in a position to supervise masters students a number of his students produced undergraduate projects of high quality that were subsequently published. He served four years as Chair of the Paleontological Society Education Committee and co-edited the important pedagogical volume *Learning from the fossil record* published in 1996 by the Palaeontological Society (this is still available in electronic form). Ken spent all of his academic career at ASU and retired as Emeritus Professor of Geology. Today the geological department at ASU houses the McKinney Geology Teaching Museum that is a testament to the work of Marg and Ken. The esteem in which both are held has been demonstrated through the joint award of the National Association of Geoscience Teachers Neil Miner Award for 2011 for teaching in the Geosciences. This is the highest teaching award for geology in the US.

For two years between 1972 and 1973 Ken was a Postdoctoral Fellow at the U.S. National Museum of Natural History in Washington, D.C. where he came under the influence of Rich Boardman and Alan Cheetham. To them were drawn a number of young, gifted and stimulating scientists, and Ken later acknowledged that this group was of critical importance in his formation as a bryozoologist. Ken's abilities were recognized early and as a result Rich Boardman asked him to write the section on the fenestrate bryozoans from the *Treatise of Invertebrate Paleontology*. This project was to occupy Ken on and off for the next thirty years or so. In the last decade of his life Ken spent a great deal of research time on this project in collaboration with Patrick Wyse Jackson, Rich Boardman and Caroline Buttler, and he was working on the Treatise all day the day he died. The volume will be published and will stand as a testament to his lifelong interest in fenestrate bryozoans.

Ken was an active member of the International Bryozoology Association, and participated in most of its conferences held between 1971 in Durham and 2001 in Dublin. Early in his research career he realized the limitations of his understanding of modern bryozoans and set out to rectify this in order that he could interpret fossil bryozoans from a biological, evolutionary and ecological standpoint. He once remarked that the scientific and personal companionship and network of IBA members was the most important factor in his life as a bryozoologist and scientist. He developed many close friendships within the IBA and travelled widely particularly in Europe both on family holidays and for collaborative research. He spent time in Durham in 1978 and later was a Visiting Fellow at both Wolfson College and St John's College, Cambridge. He also held various affiliations with a number of research institutions and museums including the Field Museum in Chicago and the Natural History Museum in London. He studied Waulsortian bryozoans of Belgium and tried with his students and with Marg to quantify their role in producing these baffling Mississippian carbonate buildups. In 1981 and 1983 he spent a number of months in Prague working up the Devonian bryozoans of the Prague Basin in conjunction with Jiri Kriz. In the US he embarked on a series of papers on a number of perplexing Mississippian taxa including *Lyroporella* (1977, 1978), *Lyropora* (1994) and *Septopora* (2001). However his series of papers on *Archimedes*, solely authored, or jointly authored with David Raup or George McGhee or others (1979, 1981, 1982, 2002, 2003), reflected Ken's natural ability to ask and answer complex geological and biological questions. In these papers he managed to unravel this distinctive fenestellid bryozoan demonstrating through mathematical modeling and through comparisons with modern spiraled taxa, the nature and dynamics of its characteristic growth habit (1980, 1986).

He later wrote a number of monographs, including that on the Cretaceous Bryozoa of the eastern US with Paul Taylor (2006) and was awarded a Golden Trilobite Award for a monograph on cinctiporid bryozoans written with Boardman and Taylor (1992). However he is possibly best known for the seminal volume *Bryozoan Evolution* (1989) coauthored with Jeremy Jackson – this has attained the status as a classic in its field, and will continue to be essential reading for the serious student of bryozoans for years to come. In all Ken published nearly 130 scientific papers, monographs and books.

In order to further his understanding of modern bryozoans Ken spent study leave at Rovinj in Croatia on the northern Adriatic coast. There he found perfect marine laboratory facilities for his studies. Over the years he would pay many visits to the town and district. His work there culminated in a taxonomic monograph co-authored with Peter Hayward in 2002, and in the acclaimed volume *The northern Adriatic ecosystem: deep time in a shallow sea* published by

Columbia University Press in 2007. He also produced a series of valuable papers on the settlement and recruitment patterns of modern bryozoans coauthored with Marg McKinney (1993, 1994, 2002a, b).

Ken was never one to seek acclaim or high recognition for his work and research. He was motivated by the desire to teach, and to ponder questions that were worth asking, and thus answering. He passed on his natural curiosity to his students, colleagues and fellow IBA members, many of whom greatly appreciated his kind and giving nature. He was always willing to help others, particularly younger colleagues, in their research.

He served as President of the International Bryozoology Association between 1998 and 2001 and presided over the conference held in Dublin in 2001. Much of the success of that meeting can be attributed to Ken's gentle persuasive powers that resulted in a large number of traveling delegates. Ken was honoured in the generic name *Mackinneyella*, a robust Upper Palaeozoic bryozoan. He was also quietly pleased that the IBA conference volume that emanated from the 2008 meeting was dedicated to Marg and himself.

Throughout his life Ken loved music, a love that he attributed to the influence of one of his uncles. Possessing a fine tenor voice and a good ear, Ken founded with others a choir at the local church of St Mary's of the Hills, Blowing Rock, and soon the group was touring England and parts of the US where it sang in various cathedrals. They later made several albums. In his house he had stained glass portraits of his two great heroes inserted in a window and in the evening the receding sunlight would scatter the images of Thomas Tallis and Charles Darwin across the room to where Ken sat, reading or listening to music.

It was not unusual when in Ken's company to find oneself engaged in a lively conversation on cooking, farming, the state of American politics (on which he had plenty to say), or the joys of spending time in Cambridge (England), or the varied characters of cats (of which he had two). He had an inceptive mind, and a wonderful and wicked sense of humour. Even when increasingly incapacitated in the last years of his life, he was always cheerful and an inspiration to many.

All those who attended to IBA conference in Boone in July 2007 will recall the hospitality of Ken and Marg on several evenings. There on their small farm holding in the Appalachian Mountains and surrounded by their sheep and donkey, friends gathered to enjoy fine wine and cheese and the engaging company of their hosts. This is how Ken should be remembered, with love and affection, and with warm appreciation for how he touched many of our lives.

Memories of Ken McKinney

Caroline Buttler. It was so sad to hear the news of Ken's death. Although I knew Ken from IBA meetings I properly got to know him in 2001 when Rich Boardman asked if I would like to help him with the trepostome section of the new treatise volume. The coordinating author of the volume was Ken, who along with Patrick Wyse Jackson was preparing the fenestrate part. Our Treatise meetings were always enjoyable and in Boone and we were able to experience the wonderful hospitality of Ken and Marg. Sitting on the porch at their house, looking at the view and eating great food was the best setting to discuss the Treatise. Ken's enthusiasm and knowledge, not just for bryozoans made him always interesting and

entertaining to be with. Ken was one of the great bryozoologists but was always very generous and I am grateful for all the help and encouragement he gave me.

Alan Cheetham. With Ken's passing, bryozoology has lost a keen mind that could always be counted on to see the larger implications of our work. It is particularly sad that he was taken from us before his contributions to paleontology and evolution in general gained all the recognition they deserve.

Pat Cook. The first time I saw Ken McKinney was in 1969 when he was part of the Washington seminars at the Smithsonian and he was with Don Dean. They were working on serial thin sections of Paleozoic bryozoan and reconstructing them. The next time was in 1974, when Ken and Rich Boardman and I were at Paris together. Then we went down to see J-G Harmelin at Marseille. With 3 or 4 others we worked down there. It was before the 1974 conference. He also was at Dublin in 2001 and Wellington in 1995.

Roger Cuffey. I've known and worked with Ken ever since the beginning of our careers in the late '60's. An excellent friend and colleague, who will be much missed.

Andrej Ernst. I met Ken first time at the IBA Meeting in Dublin 2001. After that we had a regular contact regarding not only our mutual passion, bryozoans, but also private spheres of our being. I was amused to receive an annual report of each passed year, what happened at home, what children were doing, how much cheese was made, and other news from the house of McKinneys. I will miss these reports! It was a nice happening to visit Ken and Marg during the IBA Conference in Boone 2007, together with all good friends. Our communication was especially intensive the last couple of years, during Ken's work on the fenestrate part of the Treatise. It is really unbelievable how diligent he was despite his illness and age! Ken was an excellent analyzer, with enormous knowledge and experience, and at the same time very humanely, heartily person. His death made a huge gap in our ranks. I will really miss his quick and comprehensive answers to my questions. A few days before he was gone, Ken asked me for a translation of a short passage from a Russian monograph. Ken knew that the fate was inevitable but I think he was happy to devote his last days to his life passion.

Steve Hageman (excerpts from a lengthy obituary). Ken McKinney had many undergraduate students who were inspired in his classes and who then participated in his research. One such student, William Miller (B.A. 1975, PhD Tulane) now a Professor of Geology at Humboldt State University, Arcata, CA, noted that, *"Ken remained active in his research in retirement. He and his wife Marge have a flock of loyal students who visited them whenever possible. The footprint left by the McKinneys at Appalachian is a very large one and was recognized appropriately by the University in naming the Geology Museum in their honor. They dedicated their lives to their students and co-workers, to geology, paleontology, to living an enlightened and civilized life and to serving Appalachian State."* Another former student, John Huntley (B.S. 2000, PhD Virginia Tech), himself a Humboldt Fellow, Erlangen, Germany, said of Ken and his wife Marge, *"Their investment in the lives of students extended beyond the classroom and laboratory. They helped my cultural experience through their participation in ASU's field camp in the Italian Dolomites. Beyond teaching students, whether geology or cooking Italian cuisine, Ken and Marge loved their students and invested in their lives personally."* Ellen Cowan, Professor of Geology at Appalachian commented, *"I know that Ken and Marge had a life-long influence on many of our students, whether they*

eventually pursued a career in geology or followed opportunities or callings into other professions."

Dr. McKinney was an internationally known researcher and had many friends around the world. Steve Hageman, Professor of Geology of Appalachian reported, *"I have received calls and e-mails from all over the world from Ken's friends and colleagues sending their condolences not only to his family but to Appalachian State University as a whole. For example, the British Museum of Natural History in London sent flowers to his memorial service."* Hageman added, *"The number of scholars around the world who repeatedly described Ken as 'a mentor' is a testament both to his intellectual influence and the life-long bonds that he formed with people."* David Meyer, Professor of Geology at the University of Cincinnati shared, *"Ken is one of my all-time most respected colleagues, for so many reasons. I have always thought the world of him, and I am so thankful I knew him and have benefited from his many contributions and insight."*

During his career, Ken published at least 128 peer reviewed publications including five books and seven monographs (100+ pages). Dozens of these postdate his "retirement" in 1998, including several manuscripts currently under review. Ken was the sole or senior author of ninety-five of these publications. Highlights include his books ***Bryozoan Evolution*** with J. B. C. Jackson (1989) and ***The Northern Adriatic Ecosystem: Deep Time in a Shallow Sea*** (2007), as well as three articles in the journal Science (one featured on the cover). Johnny Waters, Chair of the Department of Geology at Appalachian noted, *"Ken's publication record is impressive by any standard, but all the more so when you recognize that he did this in a department without graduate students or in collaboration with a long-standing research group. Ken was not only an intellectual force, he was a master of the process of writing, peer review and publication of his scholarship."*

Ken's research career amply demonstrated the power of paleontology to unravel complex evolutionary problems. Some might construct models, others might collect fossils, still others are itinerant travelers to museum collections, but few combine the theoretical framework with first-hand knowledge of the strengths and weaknesses of such collections as Ken did. Andy Heckert, Associate Professor in the Department of Geology oversees the F.K. and M.J. McKinney Geology Teaching Museum at Appalachian. As is true of many museums, the treasures behind the scenes dwarf those on exhibit. He noted, *"As impressive as the McKinneys' initial efforts in the museum are, the basement holds the true fruits of their labors - extensive paleontological collections, organized stratigraphically or taxonomically, according to how they might be best utilized to investigate an intellectual question, either for teaching or for research."* These collections, Heckert notes, are meticulously documented and a priceless aid not only to the museum exhibits, but also to the department's teaching mission.

Beth Okamura. Ken was a spectacular human being – with a huge interest in and enthusiasm for the world in its broadest sense and who exuded a rare warmth and camaraderie. He was unfailingly positive in his interactions, both scientific and otherwise, and generous with his time and efforts. Ken was also one of the most productive biologists I have known, generating well-rounded, scholarly and comprehensive papers that demonstrated his deep knowledge of a subject and appreciation for the relevant literature on and development of the topic. A complex person with passions for music, good food and experiencing life in novel settings, compassion for people and concern for the human condition – Ken knew what mattered. He had a lovely sense of humour. For many years he and his wife, Marge,

considered living in Italy but he was also fond of Britain and was particularly pleased when we presented him with a second-hand, woollen, button-down, V-neck cardigan of genuine Brit-pedigree which was immediately donned and looked as if it had been part of his life for years. Somehow he found time to garden, raise a family and sing in a choir. Born and raised in Birmingham, Alabama, Ken moved on to lead an exemplary life, exploring and enjoying the world, helping to understand the biology of creatures (bryozoans) that are part of that world, and enriching the lives of those lucky enough to interact with him. He is missed.

Juan Suárez. I am very sad to know that Ken McKinney passed away. We had a very active mail contact during the last two years regarding Devonian fenestrates from Spain, a dialogue that yielded a paper in 2010 and two exciting projects that were just beginning. Ken was for me a teacher, a colleague, a friend. I very much appreciated his advice, his strength of spirit, his open mind and his love for life itself. We used to talk about bryozoans and other important things: music, poetry, cooking...We have lost not only one of the most remarkable bryozoologists ever, but an extraordinary human being. My thoughts are with his family.

The Spanish poet Miguel Hernandez wrote an elegy for Ramon Sije, who was his teacher and friend. The last verses express my present feeling:
"a las aladas almas de las rosas / del almendro de nata te requiero / que tenemos que hablar de muchas cosas / compañero del alma, compañero."

Somewhere, somehow, the conversation will go on.

Kevin Tilbrook. I first met Ken at the IBA meeting in Wellington (1995). (I think Marj was the first person on the "international" stage that I met, but Ken was very close by.) We struck it off from the outset. He had a fantastic sense of humour, a phenomenally inquisitive and knowledgeable man; he dealt with his lot by focussing on his abilities. Not long after the IBA (I think it was) Ken and Marj came to live in Cambridge where I was based at the time. On one occasion a friend and I took them one a punting trip up the Cam. It was a great spring day, only tainted for my fellow punter by me inadvertently flipping him in the water! Ken was nearly in tears of laughter. He made things right by inviting us round for a meal at their digs later on. And this is what I most remember about Ken, he was extremely gracious, inspirational and above all kind, complementary and a constant source of encouragement. The World is less of a place without Ken, and I'll miss him.

Tim Wood. Six years ago when I was thinking of replacing the old annual IBA booklet with a quarterly electronic newsletter Ken was among the first people I consulted. He liked the concept and was convinced many people would contribute articles and news. He was right. In the years since that time Ken has offered good suggestions and ideas, such as finding out how many journal covers feature photos of bryozoans. As I assemble this current edition of the *Bulletin* I am moved by the testimonials to Ken that now appear on these pages, and I am filled with admiration for this remarkable man and his equally remarkable wife, Marg. It has been such a wonderful privilege to know them both.

Patrick Wyse Jackson. I was lucky enough to get to know Ken well in the last ten years of his life. We first met during an IBA meeting and he presided over the meeting I organized in Dublin. He was efficient, liking to see things done properly, but not pushy – an ideal President. During that meeting he asked me to become involved with him on revising the Order Fenestrata for the *Treatise*. I was honoured to accept, and later we discovered that perhaps the partnership was meant to be: we shared a birthday. Several visits were made to

Boone (some with Rich Boardman and Caroline Buttler; others with my family) where on the deck overlooking South Mountain with its ski slopes, coffee was drunk and plans were formulated; in the study monographs and papers were read, and in the evenings episodes of Ballykissangel were watched. I greatly appreciated this collaboration, and know that these were periods when I learnt much. I am only sorry that he will not see the final volume, but he knew that we had made considerable progress; only three days before he died he sent me the second draft of the Introduction, and had already passed over much of the rest. He did remark once that working on the Treatise would not, in the eyes of many, be the most rewarding but that he found this not to be the case. He enjoyed the opportunity to think deeply about the systematics of these bryozoans, and I know that he felt the project to be of fundamental importance. I shall continue the work and see it to publication as he would have wished.

I recall Ken's impish sense of humour, and just thinking about him makes me smile. One day while working with him in his study he asked me to fetch an offprint from high up on the shelves, and then remarked that that was where the mouse had lived. Expanding on this, his grin widened, and he told me that a while back he had noticed that some of his offprints had become marked with mouse urine. He then started to chuckle as he revealed that those worst affected where those written by our current IBA President.

One of the great joys when visiting Boone and partaking of Ken and Marg's hospitality was enjoying the food that appeared on the table; much of which came from their garden. Ken loved food, and interesting exotic food at that. Packages of unusual brands of sardines where not unknown, and he delighted in presents of Bulgarian sheep cheese. He showed my daughters how to make sausages and to stuff squash leaves that were then deep-fried. Cooking with him was an adventure, one was never quite sure what would be produced, but it always turned out delicious. He enjoyed serving up unusual dishes to unsuspecting guests. On one occasion, he recalled with a chortle, that he asked a friend if they had enjoyed the stew. On hearing that they did, he revealed that it was squirrel, at which point his guest visibly turned a shade of pale.

He had a wonderful way with children, enjoyed their company, and would encourage them to think for themselves. On one occasion he called my daughters over to the fridge and asked them to open a plastic container. There in dormant slumber were hundreds of ladybugs/ladybirds which surprised them. Ken explained that they were now ready to do battle with the alien aphids in the garden, and with that he sent the girls out to do some scattering.

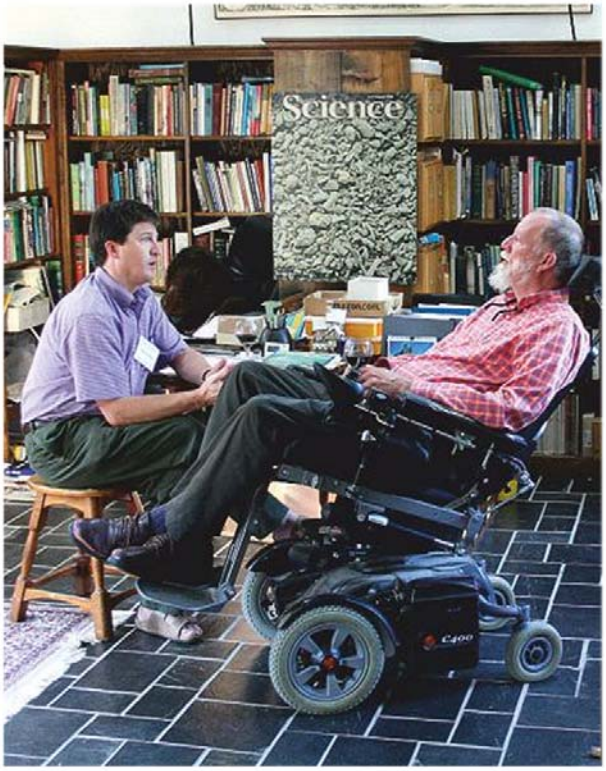
Ken was a rare breed: a superb scientist with the sharpest intellect of anyone I know and a wonderful teacher in the widest sense who enjoyed discussions on a broad range of topics, be it the origins of language, music, evolution, food and wine, and of course, bryozoans. The IBA community has lost a giant in the field. He brightened the lives of many, all of whom will greatly miss him.









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Publications by Frank K. McKinney

Books

I) McKinney, F.K. and Jackson, J.B.C.1989. *Bryozoan Evolution.* Unwin Hyman, London. 238 p. (reprinted 1991 by University of Chicago Press)

2) McKinney, F.K. 1991. *Exercises in Invertebrate Paleontology.* Blackwell Scientific Publishing, Boston. (Illustrated by Marjorie J. McKinney), 279 p.

3) Scotchmoor, J. and McKinney, F.K. (eds). 1996. *Learning from the fossil record.* Paleontological Society Papers 2, 329 p.

4) Jackson, J. B. C., Lidgard, S., and McKinney, F.K. (eds.), 2001. *Evolutionary patterns; growth, form, and tempo in the fossil record in honor of Alan Cheetham.* University of Chicago Press, Chicago. 399 p.

5) McKinney, F.K. 2007. The northern Adriatic ecosystem: Deep time in a shallow sea. Columbia University Press, New York, 299 p.

Monographs

I) McKinney, F.K. 1971. Trepostomatous Ectoprocta (Bryozoa) from the lower Chickamauga Group (Middle Ordovician), Wills Valley, Alabama. Bulletins of American Paleontology, 60:195-337.

2) McKinney, F.K. 1972. Nonfenestrate Ectoprocta (Bryozoa) of the Bangor Limestone (Chester) in Alabama. Alabama Geological Survey Bulletin 98, 144 p.

3) McKinney, F.K. 1974. Bibliography and catalogue (1900-1969) of the Trepostomata (phylum Ectoprocta). Southeastern Geology Special Paper Number 4, 147 p.

4) McKinney, F.K. and Kriz, J. 1986. Lower Devonian Fenestrata (Bryozoa) of the Barrandian area, Prague Basin, Bohemia, Czechoslovakia. Fieldiana Geology (n. s.) 15, 90 p.

5) Boardman, R. S., McKinney, F.K. and Taylor, P.D. 1992. Morphology, anatomy, and systematics of the Cinctiporidae, new family (Bryozoa: Stenolaemata). Smithsonian Contributions to Paleobiology 70, 81

p.

6) Hayward, PJ. and McKinney, F.K. 2002. Northern Adriatic Bryozoa from the Vicinity of Rovinj, Croatia. Bulletin of the American Museum of Natural History, 270, 139 p.
7) Taylor, P. D., and McKinney, F.K., 2006, Cretaceous Bryozoa from the Campanian and Maastrichtian of the Atlantic and Gulf coastal plains, United States, Scripta Geologica: Leiden, National Natuurhistorisch Museum Naturalis, 132, 346 p.

First Authored Papers

1) McKinney, F.K. 1968. A bored ectoproct from the Middle Mississippian of Tennessee. Southeastern Geology, 9:165-170.
2) McKinney, F.K. 1969. Organic structures in a Late Mississippian trepostomatous ectoproct (bryozoan). Journal of Paleontology, 43:285-288.
3) McKinney, F.K. 1969. Bibliography and list (1900-1965) of the families Constellariidae and Dianulitidae (Ectoprocta, order Cystoporata). Southeastern Geology, 10:175-184.
4) McKinney, F.K. 1971. *Stenoporella,* a Late Mississippian trepostomatous ectoproct (bryozoan). Journal of Paleontology, 45:713-723.
5) McKinney, F.K. 1972. Paleontology by doing it. Journal of Geological Education, 20:33-36.
6) McKinney, F.K. and R. J. Cuffey. 1973. Information services desired by bryozoologists. p. 601-606., In Larwood, G. P. (ed.), Living and Fossil Bryozoa. Academic Press, London.
7) McKinney, F.K. 1975. Autozooecial budding patterns in dendroid stenolaemate bryozoans. Documents des Laboratoires de Geologie de la Faculte des Sciences de Lyon Hors Serie 3:65-76.
8) McKinney, F.K. 1977. Autozooecial budding patterns in dendroid Paleozoic bryozoans. Journal of Paleontology, 51:303-329.
9) McKinney, F.K. 1977. Paraboloid colony bases in Paleozoic stenolaemate bryozoans. Lethaia, 10:209-217.
10) McKinney, F.K. 1977. Functional interpretation of lyre-shaped Bryozoa. Paleobiology, 3:90-97.
11) McKinney, F.K. 1978. Astogeny of the lyre shaped Carboniferous fenestrate bryozoan *Lyroporella.* Journal of Paleontology, 52:83-90.
12) McKinney, F.K. 1979. Some paleoenvironments of the coiled fenestrate bryozoan *Archimedes.* p. 321-335, In Larwood, G. P. and M. B. Abbott (eds), Advances in Bryozoology, Academic Press, London.
13) McKinney, F.K. and H. W. Gault. 1980. Paleoenvironment of Late Mississippian fenestrate bryozoans, eastern United States. Lethaia, 13:127-146.
14) McKinney, F.K. 1980. The Devonian fenestrate bryozoan *Utrapora* Pocta. Journal of Paleontology, 54:241-252.
15) McKinney, F.K. 1980. Erect spiral growth in some living and fossil bryozoans. Journal of Paleontology, 54:597-613.
16) McKinney, F.K. 1981. Intercolony fusion suggests polyembryony in Paleozoic fenestrate bryozoans. Paleobiology, 7:247-251.
17) McKinney, F.K. 1981. Planar branch systems in colonial suspension feeders. Paleobiology, 7:344-354.
18) McKinney, F.K. 1981. Evolutionary trends of zooidal shape. In Dutro, J.T. and Boardman, R.S. eds., Lophophorates; notes for a short course. University of Tennessee Department of Geological Sciences Studies in Geology, 5:52-69.
19) McKinney, F.K. and Stedman, T.G. 1981. Constancy of characters within helical portions of *Archimedes.* p. 151-157 In Larwood, G. P. and C. Nielsen (eds). Recent and fossil Bryozoa, 15, 1157. Olsen & Olsen, Fredensborg, Denmark.
20) McKinney, F.K. and Wass, R.S. 1981. The double helix form of branches and Its relation to polymorph distribution in *Spiralariaflorea* Busk. p. 159-167. In Larwood, G. P. and C. Nielsen (eds), Recent and Fossil Bryozoa. Olsen & Olsen, Fredensborg, Denmark.
21) McKinney, F.K and Raup, D.M. 1982. A turn in the right direction: simulation of erect spiral growth in the bryozoans *Archimedes* and *Bugula.* Paleobiology 8:101-112.
22) McKinney, F.K. 1983. Ectoprocta (Bryozoa) from the Permian Kaibab Formation, Grand Canyon National Park, Arizona. Fieldiana Geology (n. s.), 13:1-17.
23) McKinney, F.K. 1983. Asexual colony multiplication by fragmentation: an important mode of genet longevity in the Carboniferous bryozoan *Archimedes.* Paleobiology, 9:35-43.
24) McKinney, F.K. 1984. Feeding currents of gymnolaemate bryozoans: better organization with higher colonial integration. Bulletin of Marine Science, 34:315-319.
25) McKinney, F.K. and King, B.F. 1984. Early growth stages of some Paleozoic phylloporinid bryozoans. Journal of Paleontology, 58:852-866.
26) McKinney, F.K. and Boardman, R.S. 1985. Zooidal biometry of Stenolaemata. p. 193-203, In Nielsen, C. and G. P. Larwood (eds), Bryozoa Ordovician to Recent. Olsen & Olsen, Fredensborg, Denmark.
27) McKinney, F. K., Listokin, M.R.A., and Phifer, C.D. 1986. Flow and polypide distribution in the

cheilostome bryozoan *Bugula* and their inference in *Archimedes.* Lethaia, 19:81-93.
28) McKinney, F.K. 1986. Historical record of erect bryozoan growth forms. Proceedings of the Royal Society, London (B), 228:133-149.
29) McKinney, F.K. 1986. Evolution of erect marine bryozoan faunas: repeated success of unilaminate species. American Naturalist, 128:795-809.
30) McKinney, F.K., McKinney, M.J., and Listokin, M.R.A. 1987. Erect bryozoans are more than baffling: enhanced sedimentation rate by a living unilaminate branched bryozoan and possible implications for fenestrate bryozoan mudmounds, Palaios 2:41-47.
31) McKinney, F.K. 1987. Paleobiological interpretation of some skeletal characters of Lower Devonian fenestrate Bryozoa, Prague Basin, Czechoslovakia. In Ross, J. R. P. (ed.), Bryozoa: present and past, 161-168. Western Washington University Press, Bellingham..
32) McKinney, F.K. 1987. Progress in evolution. Science 237:575. (letter)
33) McKinney, F.K. 1988. Exploitation of *Cornucopina tuba* (Bryozoa: Cheilostomata) by *Aetea curta* (Bryozoa: Cheilostomata). Journal of Natural History, 22:1545-1549.
34) McKinney, F.K. 1988. Elevation of lophophores by exposed introverts in Bryozoa: a gymnolaemate character recorded in some stenolaemate species. Bulletin of Marine Science, 43:317-322.
35) McKinney, F.K. 1989. Two patterns of colonial water flow in an erect bilarninate bryozoan, the cheilostome *Schizotheca serratimargo* (Hincks 1886). Cahiers de Biologie Marine, 30:35-48.
36) McKinney, F.K. 1990. Feeding and associated colonial morphology in marine bryozoans. Reviews in Aquatic Science, 2:255-280.
37) McKinney, F. K., T. W., Broadhead and M. A. Gibson. 1990. Coral bryozoan mutualism: structural innovation and greater resource exploitation. Science, 248:466-468.
38) McKinney, F.K. 1991. Colonial feeding currents of *Exidmonea atlantica* (Cyclostomata). Bulletin de la Societe des Sciences Naturelles de l'Ouest de la France Hors Serie,1:263-270.
39) McKinney, F.K. 1991. How phylogeny limits function – the example of *Exidmonea.* National Geographic Research and Exploration, 7:432-441.
40) McKinney, F.K. 1992. Intraspecific variability in axial morphology of *Archimedes,* Pitkin Limestone (Chesterian), Arkansas. Oklahoma Geological Survey Circular, 94:23-37.
41) McKinney, F.K. 1992. Competitive interactions between related clades: evolutionary implications of overgrowth interactions between encrusting cyclostome and cheilostome bryozoans. Marine Biology, 114:645-652.
42) McKinney, F.K., Taylor, P.D., and Zullo, V.A. 1993. Lyre-shaped hornerid bryozoan colonies: homeomorphy in colony form between Paleozoic Fenestrata and Cenozoic Cyclostomata. Journal of Paleontology, 67:343-354.
43) McKinney, F.K. 1993. Carboniferous biogeography of the bryozoan *Archimedes* in North America. Historical Biology, 7:71-90.
44) McKinney, F.K. and Jaklin, A. 1993. Living populations of free lying bryozoans: implications for Post-Paleozoic decline of the growth habit. Lethaia, 26: 171-179.
45) McKinney, F.K. 1993. A faster-paced world? Contrasts in biovolume and life-process rates in cyclostome (class Stenolaemata) and cheilostome (class Gymnolaemata) bryozoans. Paleobiology, 19:335-351.
46) McKinney, F.K. and McKinney, M.J. 1993. Larval behaviour and choice of settlement site: correlation with environmental distribution pattern in an erect bryozoan. Facies, 29:119-132.
47) McKinney, F.K. and McKinney, F.J. 1994. Preferences for settlement conditions by larvae of *Schizotheca serratimargo* (Hincks, 1886), an erect bryozoan from protected habitats, p. 119-124. In Hayward, P. J., Ryland, J. 5..8 Taylor, P. D. (eds), Biology and Palaeobiology of Bryozoans. Olsen & Olsen, Fredensborg, Denmark.
48) McKinney, F.K . 1994. The fenestrate bryozoan genera *Lyropora* and *Lyroporidra* in the Upper Mississippian (Chesterian) rocks of eastern North America: taxonomy, phylogeny, paleoenvironment, and paleogeography. American Museum Novitates, 3111: 1-31.
49) McKinney, F.K. 1995. Taphonomic effects and preserved overgrowth relationships among encrusting marine organisms. Palaios, 10:279-282.
50) McKinney, F. K., 1995. One hundred million years of competitive interactions between bryozoan clades: asymmetrical but not escalating: Biological Journal of the Linnean Society, 56:465-481.
51) McKinney, F.K., Delvolve, J . and Sobieraj, J. 1995. *Conularia* sp. from the Pyrenees: further support for scyphozoan affinities of the Conularida. Lethaia, 28:229-236.
52) McKinney, F.K., Galloway, G.M., and McKinney, M.J. 1996. Colony shapes and sizes: some life history attributes of encrusting cyclostome bryozoans (Eocene, North Carolina), p. 179-185. In Gordon, D. P., Smith, A. M. and Grant-Mackie, J. A. (eds), Bryozoans in Space and Time. National Institute of Water & Atmospheric Research Ltd, Wellington, New Zealand.

53) McKinney, F.K. 1996. Encrusting organisms on co-occurring disarticulated valves of two marine bivalves: comparison of living assemblages and skeletal residues. Paleobiology, 22:543-567.
54) McKinney, F.K. 1996. Determining age of rocks and fossils. In Scotchmoor, J. and McKinney, F.K. (eds), Learning from the fossil record. Paleontological Society Special Papers, 2:115-125.
55) McKinney, F.K. 1996. Some resources on fossils for K-12 teachers and students. In Scotchmoor, J. and McKinney, F.K. (eds), Learning from the fossil record. Paleontological Society Special Papers, 2:297-321.
56) McKinney, F.K and Taylor, P.D. 1997. Life histories of some Mesozoic encrusting cyclostome bryozoans. Paleontology, 40:515-556.
57) McKinney, F.K. 1998. Avicularia-like structures in a Paleozoic fenestrate bryozoan. Journal of Paleontology, 72:819-826.
58) McKinney, F.K., Lidgard, S., Sepkoski, J.J., and Taylor, P.D. 1998. Decoupled temporal patterns of evolution and ecology in two post-Paleozoic clades: Science, 281:807-809.
59) McKinney, F.K. 2000. Colony sizes and occurrence patterns among Bryozoa encrusting disarticulated bivalves in the northeastern Adriatic Sea. p. 282-290. In Herrera Cubilla, A. and Jackson, J.B.C. (eds.) Proceedings of the 11th Conference of the International Bryozoology Association. Smithsonian Tropical Research Institute, Balboa, Republic of Panama.
60) McKinney, F. K. 2000. Phylloporinids and the phylogeny of the Fenestrida, p. 54-65. In Herrera Cubilla, A. and Jackson, J.B.C. eds. Proceedings of the 11th Conference of the International Bryozoology Association. Smithsonian Tropical Research Institute, Balboa, Republic of Panama.
61) McKinney, F.K. and Jaklin, A., 2000. Spatial niche partitioning in the *Cellaria* meadow epibiont association, northern Adriatic Sea, Cahiers de Biologie Marine, 41:1-17.
62) McKinney, F.K. 2001. Chesterian (Carboniferous) *Septopora* (Order Fenestrida), eastern North America. p. 283-189, In P.N. Wyse Jackson, C. Butler, and M. Spencer Jones (eds.) Bryozoan Studies 2001. Swets and Zeitlinger, Lisse.
63) McKinney, F.K., and Burdick, D.W. 2001. A rare, larval-founded colony of the bryozoan *Archimedes* from the Carboniferous of Alabama, Palaeontology, 44:855-859.
64) McKinney, F.K. and Jaklin, A. 2001. Sediment accumulation in a shallow-water meadow carpeted by a small erect bryozoan, Sedimentary Geology, 145:397-410.
65) McKinney, F.K. and Taylor, P.D. 2001. Bryozoan generic extinctions and originations during the last one hundred million years. Palaeontologia Electronica, 4:1-26.
66) McKinney, F.K., Webb, F., Jr., and McKinney, M.J. 2001. Middle Ordovician infratidal bryozoan-dominated rnicroreefs (Bowen Formation, southwestern Virginia, USA), Memorie di Scienze Geologiche, 53:125-137.
67) McKinney, F.K., Lidgard, S., and Taylor, P. D. 2001. Macroevolutionary trends: perception depends on the measure used, p. 348-385, in Jackson, J.B.C., Lidgard, S., and McKinney, F.K. (eds.), 2001, Evolutionary patterns, University of Chicago Press, Chicago.
68) McKinney, F.K. and McKinney, M.J. 2002. Contrasting marine larval settlement patterns imply habitat-seeking behaviors in a fouling and a cryptic species (phylum Bryozoa), Journal of Natural History, 36:487-500.
69) McKinney, F. K., and Taylor, P. D. 2003. Palaeoecology of free-lying domal bryozoan colonies form the upper Eocene of southeastern USA: Acta Palaeontologica Polonica, 48:447-462.
70) McKinney, F. K. 2003. Preservation potential and paleoecological significance of epibenthic suspension feeder-dominated benthic communities (northern Adriatic Sea): Palaios, 18:47-62.
71) McKinney, F.K., and McGhee, G.R. 2003. Evolution of erect helical colony form in the Bryozoa: phylogenetic, functional, and ecological factors: Biological Journal of the Linnean Society, 80:235-260.
72) McKinney, F.K., Taylor, P.D., and Lidgard, S. 2003. Predation on bryozoans and its reflection in the fossil record, p. 239-246, In Kelley, P.H., Kowalewski, M., and Hansen, T.A., (eds.), Predator-prey interactions in the Fossil Record. Topics in Geobiology. Kluwer Academic/Plenum Publishers, New York.
73) McKinney, F.K., and Hageman, S.J. 2006. Paleozoic to modern marine ecological shift displayed in the northern Adriatic Sea: Geology, 34:881-884.
74) McKinney, F.K., and Taylor, P.D. 2006. Encrusting community on an Upper Cretaceous erect bryozoan assemblage eastern North America: Courier Forschungsinstitut Senckenberg, v. 257, p. 93-102.
75) McKinney, F.K., and Hageman, S.J. 2007. Crossing the ecological divide; Paleozoic to modern marine ecosystem in the Adriatic Sea: The Sedimentary Record, 5:4-8.
76) McKinney, F.K. 2009. Bryozoan-hydroid symbiosis and a new ichnogenus, *Caupokeras*: Ichnos, 16:193-201.
77) McKinney, F.K., and Wyse Jackson, P.N. 2010. The tangled core at the heart of the bryozoan suborder

phylloporinina: Palaeontology, v. 53, no. 2, p. 441-456.

78) McKinney, F. K., and Wyse Jackson, P.N. 2010. *Phylloporina* Ulrich in Foerste, 1887 (Bryozoa, Fenestrata, Phylloporinina); proposed designation of *Retepora trentonensis* Nicholson, 1875 as the type species.

in review. McKinney, F.K. A new, non-fenestrated fenestrate bryozoan genus from the Much Wenlock Limestone (Lower Silurian) of England. Neues Jahrbuch für Geologie und Paläontologie.

Junior Authored Papers

1) Rogers, W.S., McKinney, K., and Jackson, M. 1963. An extension of the range of the genus *Cybelopsis* and the species *C. speciosa*: Journal of Paleontology, 37:1128-1129.
2) Rogers, W.S., Jackson, M. and McKinney, K. (1964) A new genus of sponge from the Middle Ordovician. Journal of Paleontology, 38: 135-137.
3) Banta, W.C., McKinney, F.K. and Zimmer, R.J. 1974. Bryozoan monticules: excurrent water - outlets? Science, 185:783-7843) Nitecki, M.H. and McKinney, F.K. 1975. *Cucumulites:* a bryozoan, not a sponge. Journal of Paleontology, 49:561-563.
4) Handfield, R.C. and McKinney, F.K. 1975. Form and function in an atypical archaeocyathid. Journal of Paleontology, 49:799-807.
5) Hillmer, G., Gautier, T.G., and McKinney, F.K. 1975. Budding by intrazooecial fission in the stenolaemate bryozoans *Stenoporella.Reptomulticava* and *Canalipora.* Mitteilung der Geologisches Palaontologisches Institut Universitat Hamburg, 44: 123-132.
6) Boardman, R.S. and McKinney, F.K. 1976. Skeletal architecture and preserved organs of four-sided zooids in convergent genera of Paleozoic Trepostomata (Bryozoa). Journal of Paleontology 50:25-78.
7) Bearce, D.B. and McKinney, F.K. 1977. Archaeocyathids in eastern Alabama: significance to geological interpretation of Coosa deformed belt, Geology, 5:467-470.
8) Cuffey, R.J. and McKinney, F.K. 1979. Devonian Bryozoa. Paleontological Association Special Papers in Palaeontology, 23:307-311.
9) Cuffey, R.J. and McKinney, F.K. 1982. Reteporid cheilostome bryozoans from the modern reefs of Enewetak Atoll, and their implications for Paleozoic fenestrate bryozoan paleoecology. Pacific Geology, 16:7-13.
10) Delvolve, J.J. and McKinney, F.K. 1983. A Carboniferous bryozoan faunule from the Pyrenees. Senckenbergiana, 64:315-335.
11) Boardman, R.S. and McKinney, F.K. 1986. Soft part characters in stenolaemate taxonomy. p. 35-44, In Nielsen, C. and G. P. Larwood (eds), Bryozoa Ordovician to Recent, 3544. Olsen & Olsen, Fredensborg, Denmark.
12) Tull, J. F., Harris, A.G., Repetski, J.E., McKinney, F.K. Garrett, E.B. and Bearce, D.N. 1988. New paleontologic evidence constraining the age and paleotectonic setting of the Talledega Slate Belt, southern Appalachians. Bulletin of the Geological Society of America, 100:1291-1299.
13) Jackson, J.B.C. and McKinney, F.K. 1990. Ecological processes and progressive macroevolution of marine clonal benthos. p. 173-209, in Ross, R. W. and W. D. Allmon (eds), Causes of Evolution: a Paleontological Perspective. University of Chicago Press, Chicago.
14) Lidgard, S., McKinney, F.K. and Taylor, P.D. 1993. Competition, clade replacement and a history of cyclostome and cheilostome bryozoan diversity. Paleobiology, 19:352-371.
15) Cadee, G.C. and McKinney, F.K. 1994. A coral-bryozoan association from the Neogene of NW Europe. Lethaia, 27:59-66.
16) Taylor, P.D. and McKinney, F.K 1996. An archimediform bryozoan from the Eocene of North Carolina. Journal of Paleontology, 70:218-229.
17) Radenbaugh, T.A. and McKinney, F.K. 1998. Comparison of the structur of a Mississippian and Holocene pen shell assemblages. Palaios,13:52-69.
18) Taylor, P.D. and McKinney, F.K. 2000. Reinterpretation of *Stictostega* Shaw, 1967, an Upper Cretaceous cheilostome bryozoan from Arkansas. Journal of Paleontology, 74:1-6.
19) McGhee, G.R. Jr. and McKinney, F.K. 2000. A theoretical morphologic analysis of convergently--evolved erect helical colony form in the Bryozoa, Paleobiology, 26:556-577.
20) Sepkoski, J.J. Jr., McKinney, F.K and Lidgard S. 2000. Competitive displacement among post-Paleozoic cyclostome and cheilostome bryozoans, Paleobiology, 26:7-19.
21) Dewel, R.A, Dewel, W.E., and McKinney, F.K. 2001. Diversification of the Metazoa: Ediacarans, colonies and the origin of eumetazoan complexity by nested modularity. Historical Biology, 15:83-118.
22) Taylor, P.D., and McKinney, F.K. 2001. Brooding in the Cretaceous bryozoan *'Stichomicropora* and the origin of ovicells in cheilostomes. p. 307-314. In P.N. Wyse Jackson, C. Butler, and M. Spencer Jones (eds.) Bryozoan Studies 2001. Swets and Zeitlinger, Lisse.
23) McGhee, G.R. Jr., and McKinney, F.K. 2002. A theoretical morphological analysis of ecomorphologic

variation in *Archimedes* helical colony form. Palaios, 17:556-570.

24) Raup, D.M., McGhee, G.R., Jr., and McKinney, F.K. 2006. Source code for theoretical morphologic simulation of helical colony form in the Bryozoa: Palaeontolgia Electronica, 9:1-16.
25) Wyse Jackson, P.N., McKinney, F.K., and Bancroft, A.J. 2006. Fenestrate bryozoan genera based on species from Ireland originally described by Frederick M'Coy in 1844: Palaeontology, 49:741-767.
26) Wyse Jackson, McKinney, F.K. and Ernst, A. 2010. *Retepora undata* M'Coy, 1884, type species of *Phylloporella* Fredericks 1916, a junior synonym of *Chainodictyon* Foerste, 1887: A phylloporinid bryozoan from the Mississippian of Ireland redescribed. Irish Journal of Earth Sciences, v. 28, p. 53–60.
27) Suáres-Andrés, J.L., and McKinney, F.K. 2010. Revision of the Devonian fenestrate bryozoan genera *Cyclopelta* Bornemann, 1884 and *Pseudoisotrypa* Prantl, 1932, with description of a rare fenestrate growth habit. Revista Española de Paleontología, v. 25, no. 2, p. 123- 138.
28) Hageman, S.J. and McKinney, F.K. (2010) Discrimination of Fenestrate Bryozoan Genera in Morphospace. Palaeontologia Electronica 13(2): 1-43.
29) Wyse Jackson, P. N., Reid, C. M. and McKinney, F. K., in press. The status of *Protoretepora* de Koninck, 1878 (Fenestrata: Bryozoa), and description of *P. crockfordae* sp. nov. and *P. wassi* sp. nov. from the Permian of Australia. Alcheringa v. 35.
30) Hageman, S.J., McKinney, F.K., and Jaklin, A. in press. Testing microhabitat complexity as a control over bryozoan colonial growth form and species distributions. In Schafer, P., Ernst, A., and Scholz, J. (eds). Proceedings Volume of the 15th International Bryozoology Association Meeting, Kiel, Germany.

in review. Wyse Jackson, P.N., Reid, C.M. and McKinney, F.K.. *Protoretepora* de Koninck, 1878 (Bryozoa, Fenestrata): proposed designation of *Protoretepora crockfordae* Wyse Jackson, Reid and McKinney, 2011 as the type species. Bulletin of Zoological Nomenclature.

Field Guides, Book Reviews and Other

1) McKinney, F.K. 1971. Bryozoan stratigraphy of the lower Chickamauga Group, Wills Valley, Alabama. Guidebook for the Ninth Annual Field Trip of the Alabama Geological Society, 101-114.
2) McKinney, F.K. 1972. The course of evolution, by J. Marvin Weller. Journal of Paleontology 46:931-932. (book review)
3) McKinney, F.K. 1974. Animal colonies: development and function through Time. Geotimes, May 1974:31-32. (book review)
4) McKinney, F.K. 1977. Archaeocyatha of the Shady Formation, Sleeping Giants, Talladega County, Alabama. p. 16-19 In Bearce, D.N. (ed.) Guidebook for the Annual Field Trip of the Alabama Geological Society, 15.
5) Chowns, T.M. and McKinney, F.K. 1980. Depositional facies in Middle-Upper Ordovician and Silurian rocks of Alabama and Georgia. p. 323-348. In Frey, R. (ed.) Excursions in Southeastern geology; Volume II. Geological Society of America Meeting, Atlanta.
6) McKinney, F.K. 1988. Multidisciplinary perspectives on evolutionary innovations. Trends in Ecology and Evolution, 3:220-222. (synthesis of 11th Annual Spring Systematics Symposium, Field Museum of Natural History, Chicago).
7) McKinney, F.K. 1994. Uninhabited, or uninhabitable? American Paleontologist, 2:8-10. (meeting, book review)
8) McKinney, F.K, 2001, Describing species, Journal of Natural History, 35:310-311 (book review).
9) McKinney, F.K. 2001. Bryozoa (Paleoecology), 2001. p. 67-69, In Kasunic, R. et al. (eds.), McGraw-Hill Yearbook of Science & Technology, McGraw-Hill, New York. (encyclopedia entry)

Ken McKinney: How I discovered bryozoans.

Reprinted from *IBA Bulletin* 2(5), p. 7 (2006)

I had absolutely no intention to work on bryozoans. As an undergraduate in a small college in Birmingham, I was one of three students who spent a lot of time collecting fossils from the prolific Ordovician and Carboniferous rocks of northern Alabama. Our favorite collecting sites were in Mississippian limestones, which provided thousands of beautiful echinoderms and brachiopods within a background of even more abundant and uninteresting (except the axes of *Archimedes*) bryozoans. One fellow in the group claimed the echinoderms for his future research, the female in the group (now Marjorie McKinney) claimed the brachiopods, and being a little slow off the mark, I decided to work on the moderately common trilobites. Arriving at graduate school and informing my advisor of this intention, he said "No. There are too many people working on trilobites." I thought, "I want to work on Mississippian fossils from around home, and the two good groups are already taken; sure don't want to work on bryozoans." Those "thoughts" must have been muttered, because he said, "Bryozoans, yes. Work on bryozoans. There aren't many people studying them." After about two weeks of moping about, I decided reluctantly that it was time to get started. After a few weeks it became clear that bryozoans were indeed interesting, and by the time graduate study was over it was clear that although biological understanding of ancient bryozoans wasn't quite virgin territory, it was close enough to provide a fascinating basis for a career.

Sea Drift. Remembering Ken McKinney

Joachim Scholz

The first time I met Ken was during my entrance into the IBA community, on the occasion of the Paris conference in 1989. He was already famous, and I was still a PhD student, unsure of myself and still wearing an egg shell on my head. In November 1992, Ken participated in the DFG workshop "microbial control of reefs" in Hamburg, November 1992, that Gero Hillmer and I had organized. Previously, he had sent to me SEMs of diatoms entering the frontal membrane of Adriatic bryozoans and we were thinking about writing an article on his finding together. Furthermore, I had just read *Bryozoan Evolution* in Gero Hillmer´s library, in Hamburg and so I had many questions to be addressed to a veteran of bryozoan research. It seemed that we were entering a usual business relationship.

However, things went a different pathway. The joint article never got off the ground, we just produced a poster together, shown during the IBA Swansea meeting. Yet, Ken and Marg wrote a beautiful paper for the microbial control workshop special volume in FACIES 29 (1993) on settlement patterns in Adriatic bryozoans, a contribution that was destined to be one of the first documentation of Ken´s later year's passion for the Adriatic sea, culminating in his brilliant monography and ode to "The Northern Adriatic Ecosystem", published 2007 ("*I have been enamored of the Adriatic Sea and its ecology since I was first taken out in 1987 on a small teaching and research boat ...*").

There are several of Ken´s letters he wrote to me between 1992 and 1996 that I still keep, all of them dealing with bryozoans. Afterwards, Ken and I corresponded on bryozoans only very rarely. Instead, aside from some personal matters of our life and families, we frequently talked about music. If you meet another person and discover that you both like, let's say, the

symphonies of Beethoven, there is nothing special or unusual about that, since of course many people know Beethoven, and also like his symphonies. On the other hand, if you come to realize that you both like the music of Ralph Vaughan Williams, this is something more special. Both of us shared a love for British music, and so we frequently talked about new CDs, and many British composers, discussing Tippett, Howells, Leighton, Elgar, and Malvern hills where Elgar composed most of his works (Malvern had been a topic in the last Email Ken sent to me, dated March 23, 2011).

Again, as in bryozoology, Ken was far more advanced than me, since unlike me, Ken was a true musician. He had the gift and ability to perform this splendid music by himself instead of just listening to CDs, singing together with Marg in a liturgical choir. Ken was surprisingly well connected among musicians. For example, when I pointed out to Ken a new recording of the Vaughan Williams mass (released early in 2010), it turned out that he had not only met the choir leader, but had once sung under his guidance. He continued: "*I have long wanted to sing the Vaughan Williams Mass in G minor but never got the chance. We do sing a few of the Vaughan Williams anthems, including Valiant for Truth, which is on the new Clare CD."* (Email, June 1, 2010).

He never got the chance - at that time, Ken was confined to the wheel chair, but he only complained to me once about his failing health. In 1995, he bitterly regretted not being able to join the IBA Wellington meeting in New Zealand, because of a flight too long for his back. Thus, despite of many sorrows and a tormented life, he usually wrote cheerfully when we corresponded. I regret very much, that I only once had the possibility to visit him and Marg in the Blue Mountains, a visit during the 2007 IBA conference that turned out to be Ken's "Sea Drift" (in the language of Frederick Delius, another British composer).

Last year, I asked Ken whether Yasmin, my wife's daughter, could visit him during her first journey to the United States (Yasmin is studying American literature and culture at Frankfurt University). This was quickly arranged, thanks to the kind mediation of Steve Hageman, and the visit went very well. As it turned out, Yasmin was one of the last foreign visitors (if not the last) in his residence home. She visited him just a week before he passed away, and during the visit, Ken once again was cheerful, as Yasmin told me after her return, receiving the sad news upon her arrival back in Germany.

In his pagan "Requiem," Frederick Delius, one of the most fiercefully atheistic composers that ever existed, develops the almost geophysiological, Vernadskian view of life and matter eternally renewing. Possibly, Ken, as an evolutionary biologist and geologist, would have liked this thought on the recycling of all what we have been made of, and the rebirth in springtime, in the shape of green trees and hedges that bear no memories. But for Ken, I hope that the "Big Sleep" is not as dreamless as it was assumed by Delius, and that he is sitting there now somewhere above us, watching, and still looking cheerfully at us, waiting for us to join him one day certainly to come.

In a truly Delian manner Ken was a "*man to be honored*," somebody "*who can love life, yet without base fear can die"* and "*makes no lamentation."* I am missing him, but he probably would have hated me for making lamentations.

Thus, the last words shall be spoken by Ken himself, extracted from an email he sent to me a while ago, on August 24, 2005, shortly after I had asked him about his health; he answered:

"I can still walk short distances with the help of a walking frame but spend most of my time in a Swedish-built battery-powered wheel chair. No need to feel particularly sympathetic for me, though. I was told when in my 20s that I would be in a wheel chair at about age 40. It didn't happen until earlier this year, at age 62. So, I had 20 "extra" years of walking around on my own limbs, doing things and being places that I never thought possible. In addition, my mind still works, or at least if it doesn't, I am so befuddled that I think it does. Besides, Marg and I live in a pleasant rural setting with a decent view and with a cellar stocked with inexpensive but age-worthy wines. Life is good."

Farewell .... and seeing you, Marg, again in North Carolina, (and seeing you, Ken, next springtime).

European Journal of Taxonomy

Editor's Note: Dennis Gordon recently brought this new journal to my attention. We both thought it would be worth publicizing to IBA members.

EJT is an international, fully electronic, Open Access journal in descriptive taxonomy, covering subjects in zoology, entomology, botany, and palaeontology. EJT-papers must be original and of high scientific (content) and technical (language, art work,..) standard. Manuscripts that are clearly substandard in either of these categories will not be sent out for review. EJT is carried by a consortium of (European) natural history institutes, but its scope is global. Both authorship and geographical region of study need not be European. Authors are, however, invited to involve European natural history collections by consulting extant material, or by depositing (type-) material related to the published paper in the collection of a European Natural History Institute.

EJT is published and funded by a consortium of (European) natural history museums, consequently, publishing in and access to EJT is free: **neither authors, nor readers have to pay fees or subscriptions**. Coordinating institutional resources into a single publishing platform contributes to excellence, prevents repetition, and increases efficiency in the dissemination of taxonomic data, while providing a secure long-term platform at minimal cost. EJT aims to be a high standard, fully free taxonomic journal that offers **all the modern interactive web-based facilities** of a high-level, high impact journal.

Printed versions of EJT papers will be distributed to some major natural history museums and institutions to comply with the rules of the different nomenclatural codes.

More information at http://web-ejt.nhm.ac.uk/index.php/ejt

10th Larwood Meeting

Thursday 5th – Saturday 7th May 2011
Santiago de Compostela, Spain

Oscar Reverter-Gil and **Javier Souto**. The 10th Larwood Symposium was organized by us and held May 5-7 at the Faculty of Biology, University of Santiago de Compostela (Spain). Finally 35 people have attended (some others could not be finally present…) and a total of 26 communication have been presented.

First, we would like to thank again to all who came to our conference. We hope that all participants were satisfied, and enjoyed the meeting. We ourselves had a great time. It was so good to see old friends, and make new ones over those few days. We have shared good moments during the sessions, but especially during the free times… Saturday all of us were tired, and we hope that this is a good signal!

Here you are some photos and the full list of presentations and posters, and also a list of participants. You will also find abstracts of all presentations and more photos at the IBA website.

Some photos below were provided by Carlos López-Fé.


Scientific sessions and coffee break

Meeting dinner

Excursion to Ferrol


Searching for Bryozoans at the lab ... and at the meal!

ABSTRACTS

The Ca isotope compositions of Bryozoans
Marghaleray AMINI, Dorrit E. JACOB, Joachim SCHOLZ & Stephen J.G. GALER

Calcification-inducing proteins in Bryozoans
Michelle CARTER, Joanne S. PORTER & Peter MORRIS

Re-colonization of the Southern North Sea with travelling Bryozoa: natural and human-mediated vectors of introduction
Hans DE BLAUWE

Cenozoic Bryozoans from Southeast Asia: a contribution to the origin of high tropical biodiversity
Emanuela DI MARTINO

Antifouling activity of Antarctic Bryozoans against *Escherichia coli* and *Bacillus cereus*
Blanca FIGUEROLA, Jennifer VÁZQUEZ, Anicet BLANCH & Conxita ÀVILA

Studying the potential impact of ocean acidification on Bryozoans in the Southern Ocean
Laura C. FOSTER, Daniela N. SCHMIDT, Paul D. TAYLOR & Beth OKAMURA

Investigating polyembryony in Cyclostome Bryozoans
Helen L. JENKINS, Roger N. HUGHES, Beth OKAMURA & John D.D. BISHOP

Effect of ocean acidification on zooidal developmental patterns of the Mediterranean Bryozoan *Calpensia nobilis* (Esper, 1796)
Chiara LOMBARDI, Silvia COCITO, Maria Cristina GAMBI & Paul D. TAYLOR

Genotypic and phenotypic variation in the calcification of marine invertebrates as a response to changing environmental conditions
Jennifer L. LOXTON, Piotr KUKLIŃSKI, J.M MAIR, Mary E. SPENCER JONES, P.R. COWIE & Joanne S. PORTER

Structure and function of the placental analogue of *Bicellariella ciliata* (Bryozoa, Cheilostomata)
Martin MOOSBRUGGER, Thomas SCHWAHA & Andrew OSTROVSKY

Records of fossil Brazilian Bryozoans
Laís V. RAMALHO

Bryozoans from mid-oceanic ridge – preliminary results of Mar-Eco South-Atlantic program
Laís V. RAMALHO & Flávia T. SANTANA

The genus *Crepis* jullien (Bryozoa: Cheilostomatida)
Oscar REVERTER-GIL, Javier SOUTO, Eugenio FERNÁNDEZ-PULPEIRO & Isabel RODRÍGUEZ-MOLDES

Alien Bryozoans as substrates for alien Caprellids (Crustacea: Amphipoda)
Macarena ROS, Manuel GONZÁLEZ-MACÍAS, Ángela SAAVEDRA, Carlos María LÓPEZ-FÉ & José M. GUERRA-GARCÍA

Colonial budding in a Neogene Cupuladriid from Italy
Antonietta ROSSO, Angela BALDANZA, Roberto BIZZARRI & Federico FAMIANI

Bryozoa on the web: obscurity to enlightenment
Sally ROUSE, Mary E. SPENCER JONES & Joanne S. PORTER

Arrival, spread and survival of alien species of Bryozoa along Atlantic coasts of Europe
John S. RYLAND, John D.D. BISHOP, Hans DE BLAUWE, Dan MINCHIN, Aliya EL NAGAR, Christine A. WOOD & Anna EL YUNNIE

Brooding and maternal provisioning in Ctenostome Bryozoans
Thomas SCHWAHA, Martin MOOSBRUGGER & Andrey OSTROVSKY

Curation of Lang's specimens in the fossil Bryozoan collection at the NHM, London
Consuelo SENDINO, Anna B. TAYLOR & Paul D. TAYLOR

Manuel Gerónimo Barroso (1887 – 1963), the first Spanish bryozoologist
Javier SOUTO, Oscar REVERTER-GIL & Eugenio FERNÁNDEZ-PULPEIRO

The Hincks Collection at the Natural History Museum, London
Mary E. SPENCER JONES, Consuelo SENDINO & Anna B. TAYLOR

The contribution of Devonian Bryozoans to the geological heritage of Arnao site
Juan Luis SUÁREZ ANDRÉS

Temporal trends in Bryozoan colony-forms
Paul D. TAYLOR & Noel P. JAMES

Bryozoa from the locality Židlochovice
Tereza TOMAŠTÍKOVÁ

The identity of the *Sertularia reptans* Linnaeus, 1758, with comments on other British *Scrupocellaria* species
Leandro M. VIEIRA & Mary E. SPENCER JONES

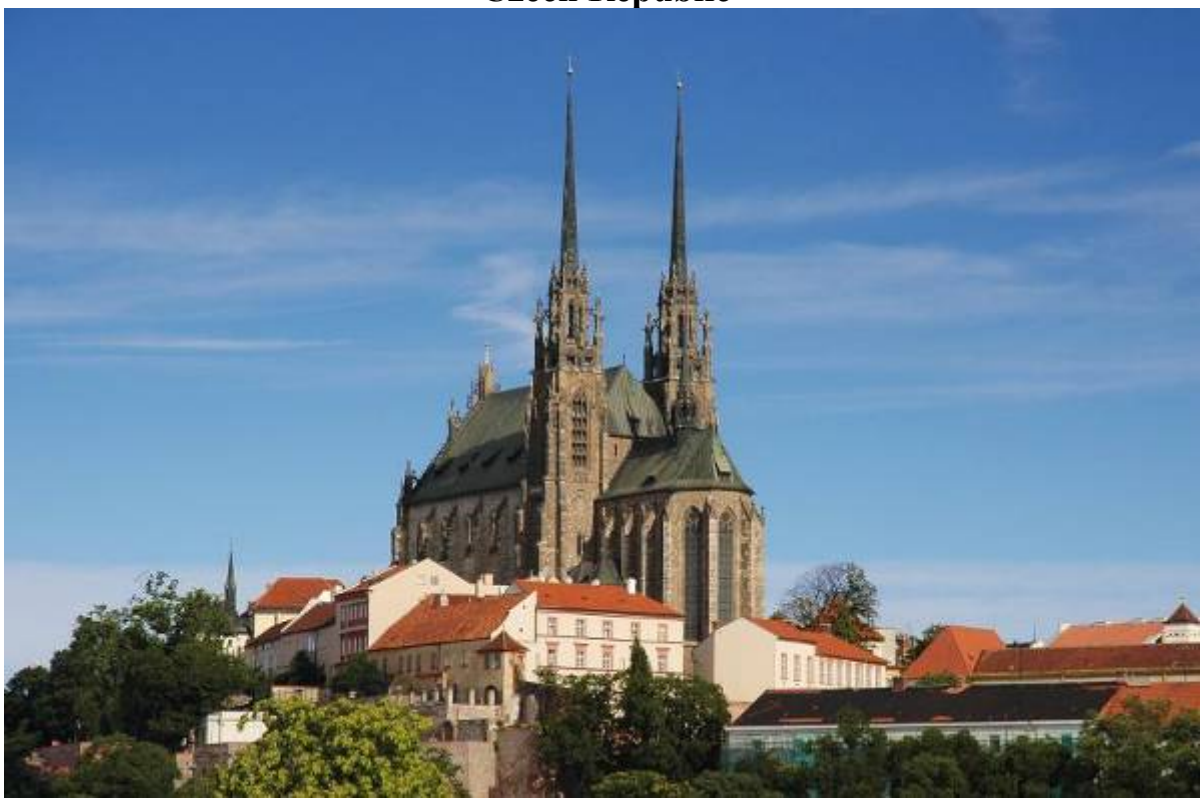
Paleonvironmental reconstruction of the North-Western margin of Carpathian foredeep in early Miocene: local catastrophe near Přemyslovice (Moravia, Czech Republic)
Kamil ZÁGORŠEK, Slavomír NEHYBA, Pavla TOMANOVÁ-PETROVÁ, Šárka HLADILOVÁ, Aleksandra BITTNER, Nela DOLÁKOVÁ & Juraj HRABOVSKÝ

Invitation to the 11th Larwood Meeting 2012

Organized by

Department of Geology Masaryk University, Brno

Czech Republic



Dear friends,

Allow us to invite you to the 11th Larwood meeting at Brno (south Moravia, Czech Republic).

We plan to organize the meeting from 31st of May to 3rd of June 2012 in usual schema: Thursday and Friday lectures on Department of geology of Masaryk University, Friday afternoon, sightseeing of Brno, Saturday field trip to some best paleontological localities with tertiary bryozoans. All you are warmly welcome…:-)

You can reach Brno by train (recommended) from Vienna, by plane or by car.

Please let us to know, if the proposed dates are generally a problem for you and if you plan your participation. The first circular will be published in winter IBA Bulletin.

Looking forward to see you in Brno

Kamil & Tereza with colleagues

Award for the Bryozoa Home Page

Phil Bock's Bryozoa Home Page (www.bryozoa.net) has been presented with the *Palaeontological Association 2010 Golden Trilobite Award*. This honor is awarded at the discretion of Palaeontological Association Council for high quality amateur and institutional websites that promote the charitable aims of the Association.

IBA members will surely agree that the award is richly deserved for this incredibly valuable site and is a recognition for the countless hours of thoughtful work that Phil has devoted to it.

Now Phil is taking on additional work. He writes, "Most of the Recent bryozoan species accepted generally are now on the WoRMS (World Registry of Marine Species) site: http://marinespecies.org.

I am starting to include earlier versions of these names, but this will be slow (think of Lepralia, Retepora and more!). I would appreciate comments and corrections, and particularly any recent names to be added.

The WoRMS data include useful links to the Encyclopedia of Life (eol.org), and to the Biodiversity Heritage Library. At present, the WoRMS data will be the main systematic database for EoL.

Additional data - references, locality records, and illustrations would be welcome. We also should be adding taxonomic descriptions and diagnoses. I am also starting to curate the species pages at the Encyclopedia of Life, but this also will be slow. I encourage others to become involved - either directly through EoL, or by contacting me.

If you have information stored on local servers that you can allow others to see - this can be done by linking, without actually uploading the data.

All these developments, regrettably, are mainly for Recent species. The BryoZone scratchpad being developed by Scott Lidgard will aim to be comprehensive.

At present, I have no affiliations with any library, and am missing out on recent publication - please let me know of any developments!!

New from the IBA: Annals of Bryozoology 3

***Annals of Bryozoology 3: aspects of the history of research on bryozoans* (edited by Patrick Wyse Jackson & Mary Spencer Jones). ISBN 0-9543644-2-2. Paperback, 234 pp. Price: €15.00 (includes packing and postage).**

This volume contains a collection of ten papers that reflect the diversity of topics in the study of fossil and living Bryozoa. It is the third in a series that began with the publication of the first and second volumes by the International Bryozoology Association in 2002 and 2008. A number of papers were presented at the conference of the International Bryozoology Association held in Kiel in 2010. In addition copies of *Annals 1* (2002, 399 pp.) and *Annals 2* (2008, 450 pp.) are still available at the bargain price of €10 each.

Contents:

Order form

Please mail me ___ copies of *Annals of Bryozoology 3* @ €15 per copy
___ copies of *Annals of Bryozoology 1* @ €10 per copy
___ copies of *Annals of Bryozoology 2* @ €10 per copy

Bank drafts/money orders should be made out to the 'International Bryozoology Association' and returned to Patrick Wyse Jackson, Department of Geology, Trinity College, Dublin 2, Ireland.

Name: _____

Address: _____

_____

Note that all delegates of the Kiel IBA conference will be receiving one copy of *Annals 3* as part of their registration fee. However they may wish to purchase copies for their institutional library.

In Memoriam

Karen Emilie Bille Hansen

6 May 1919 – 27 December 2010

Claus Nielsen

Karen Bille Hansen was born in Copenhagen few hundred metres from the large open common where the Zoological Museum is now situated. She entered University of Copenhagen in 1937 and obtained her degree in 'natural history and geography' specializing in zoology in 1944. In 1945 she married Erik Bille Hansen who later became lecturer at the Laboratory for Plant Physiology at the University; he died in 1996. During the first years after her degree she had various grants for work on bryozoans and other marine organisms, but she never obtained a permanent position. Nonetheless she continued her studies on the bryozoans, and began to work on the bryozoans from West Greenland (Davis Strait and Baffin Bay) collected by the 'Godthaab' Expedition in 1928 (published in 1962). Subsequently she began working on the Icelandic bryozoans for a volume in the series 'Zoology of Iceland', based on the extensive collections of the Zoological Museum. She almost completed the large manuscript, but during the last years, Karen became more and more tired and weak and it became obvious that she could not finish the large manuscript. It is hoped that the material can be included in a wider treatment of Icelandic bryozoans.

Karen had an exceptionally sharp eye for the bryozoans. Her life-long work with the North Atlantic fauna made it possible for her to recognize most of the species with the naked eye. At the first day of the IBA pre-conference excursion to Roscoff in 1980 she searched the exhibited trays with large samples of material with bryozoans, and she recognized three species which had not previously been recorded from the area.

Karen was a very helpful person. Over the years she identified bryozoans for many of the Museum's former students who were working as environmental consultants for various public and private organizations. Also the foreign students who visited the collections of the Zoological Museum found a specialist who readily shared her comprehensive knowledge of North Atlantic bryozoans. Some of them can with full right be called students of Karen Bille Hansen.

Karen Bille Hansen will be remembered as a highly competent bryozoologist and a fine colleague and friend.

Publications:

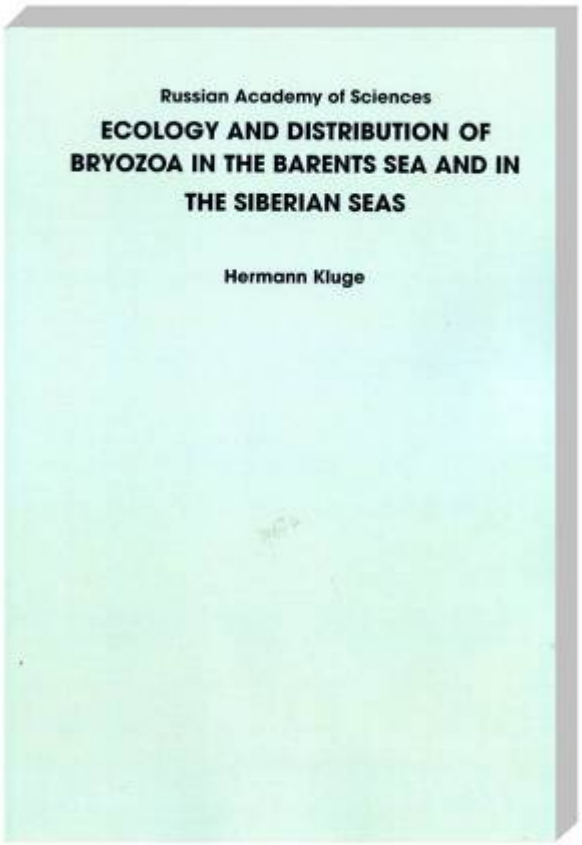
Hansen, K. B. 1962. Bryozoa. The Godthaab Expedition 1928. Meddelelser om Grønland **81**(6): 1-74.

Hayward, P. J. & Hansen, K.B.. 1999. Three newly recognized cheilostomate bryozoans from the British sea area. – Journal of the Marine Biological Association **79**: 917-921.

Bennike, O,. Hansen, K.B., Knudsen, K.L., Penney, D.N. & Rasmussen, K.L. 2008. Quaternary marine stratigraphy and geochronology in central West Greenland. Boreas **23**: 191-215.

Bryozoan Bookstall

Valentina Ivanovna Gontar



This book represents a monographic work about Bryozoa of the Barents and Russian Siberian Seas. The manuscript was written more than forty-five years ago. It is important nowadays as well as during half of the Twentieth Century. The book represents the detailed description of Bryozoan fauna of the Russian Northern Seas, including data about their distribution and life conditions, and reflects a level of knowledge about this topic at the time of the writing of the manuscript. M. G. Gostilovskaya received this manuscript after the death of Hermann Augustovich Kluge. She worked with it for many years. After M. G. Gostilovskaya's death, the manuscript was transferred to me (Gontar Valentina Ivanovna) together with her library.

Unfortunately, for reasons not dependent on me, it was impossible to prepare the manuscript for publication before now. As editor, I made changes in accordance with current understanding of the species and added biogeographical characteristics for all species. The great number of papers about Bryozoan fauna of the Northern Seas of Russia was published since editing of the manuscript of M. G Gostilovskaya. I left the data about the distribution and ecology, which was given by H. A. Kluge and M.G Gostilovskaya, without changes. The new data about distribution of those and other species was considered by me in biogeographical characteristic of species.

In the course of editing the manuscript I tried to keep a style of material description at a comparison of different species, which is appropriate for H. A. Kluge. I preserved his remarks concerning probable ways of distribution of species because they represent a great interest for biogeography now and have not become outdated.

The monograph describes 337 species and subspecies of Bryozoa, which relate to 110 genera, 42 families, and 18 superfamilies, 4 infraorders, to 15 suborders, 3 orders and 2 classes. Three new species are described for the first time. In the *"Key of the Bryozoa of the Northern Seas the USSR"* (Kluge, 1962) were described 340 species and the subspecies, which is relating to 88 genera, 41 families, 4 sections, 10 suborders, 3 orders, and 1 class.

The greatest value of this research in a comparison with *"The Key of Bryozoa of the Northern Seas of the USSR"* in that it includes the remarks concerning of the systematic positions of the species. K. A. Kluge reviewed collections of Bryozoa of the foreign scientists and explained some errors in definition of species by those or other authors. He defined more

precisely borders of species distribution and their ecological characteristics. The publication of this monograph increases our knowledge about Bryozoa of the Northern seas and an origination of their fauna. It allows also data unification about different taxons according to modern conceptions about the Bryozoan system. The book will serve as a source book for all scientists studying the fauna of the Northern seas of the Russia and the Arctic Ocean.

In Memoriam

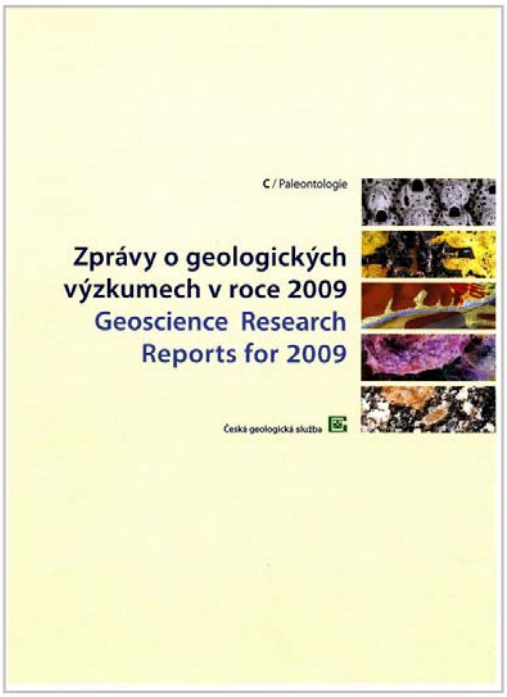
Rory Milne

It is with great regret that I convey the news of the passing of IBA Member Rory Milne who died on April 24th. Rory had been a volunteer at the NHM for several years, curating our collections from the Coralline Crag and being friendly and helpful to the numerous visitors who passed through the fossil bryozoan section. He participated in the Larwood Symposia in Vienna (2008) and Oslo (2009). (Paul D. Taylor)

Journal Covers

The cover images show journals published in Czech in 2010. The upper left journal shows *Calloporina decorata* (Reuss, 1848) from section Sedlec (south Moravia, Miocene) belonging to the article:

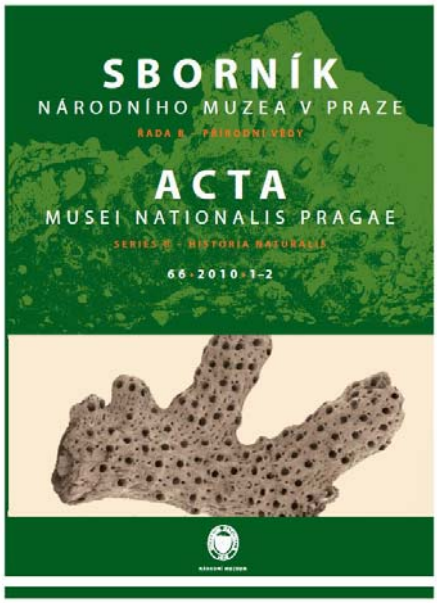
Zágoršek, K, Jašková, V. (2010): Bryozoans from temporary outcrop in the vicinity of Rousínovec (Carpathian Foredeep, south Moravia). – Geoscience Research Reports for 2009. Czech Geological Survey, Prague, 2010: 179-182.



The lower left image shows *Smittina cervicornis* (Pallas, 1766) from section Podbřežice with related article
Zágoršek, K., Tomanová Petrová, P., Nehyba, S., Jašková, V., Hladilová, Š. (2010): Fauna vrtů HL1 a HL2 u Hluchova (střední miocén), Prostějovsko. – Geologické výzkumy na Moravě a ve Slezsku 17: 99-103.

And the lower right image shows *Hornera* sp. from section Přemyslovice related to the first part of the monograph
Zágoršek, K (2010): Bryozoa from the Langhian (Miocene) of the Czech Republic. Part I: Geology of the studied sections, systematic description of the orders Cyclostomata, Ctenostomata and "Anascan" Cheilostomata (Suborders Malacostega Levinsen, 1902 and Flustrina Smitt, 1868). – Acta Mus. Nat. Prague, Ser. B, Hist. Nat., Praha. Series B – Historia Naturalis, vol. 66 (1–2): 3–136.

Information and images courtesy of Kamil Zágoršek.



Previous journal covers in this series:

Upcoming Meetings and Conferences

Bryozoology

11th Annual Larwood Meeting
31 May 2011 to 3 June 2012
Masaryk University, Brno, Czech Republic
Hosts: Kamil Zágorsěk and Tereza Tomaštíková

16th IBA Conference
10-15 June, 2013, Catania, Italy
(Website not yet announced)

Paleontology

American Geophysical Union
2011 Fall Meeting
5-9 December, 2011, San Francisco, CA.
http://www.agu.org/meetings/

American Geophysical Union
2010 Ocean Sciences Meeting
20-24 February 2012, Salt Lake City, Utah USA

The Palaeontological Association
55th Annual Meeting 2011
(Not yet announced)

Tenth North American Paleontological Convention
Summer, 2013, (Venue not yet announced)

Geological Society of America Annual Meeting
9-12 October 2011, Minneapolis, Minnesota USA
http://www.geosociety.org/meetings/2011/

Biology

Aquatic Invasive Species, 18th International Conference,
(Not yet announced)
http://www.icais.org/pdf/1st_annc_17th.pdf

12th International Coral Reef Symposium
July 9-13, 2012, Cairns, Australia.
http://www.coralcoe.org.au/icrs2012/NewsCoral2012/CoralNews.htm

Ecological Society of America, 96th Annual Meeting
August 7-12, 2011, Austin, TX..

http://www.esa.org/meetings/

International Council for the Exploration of the Sea
2010 Annual Science Conference
19-23 September, 2011 Gdansk, Poland
http://www.ices.dk/iceswork/asc/2011/index.asp

International Society of Limnology
Various meetings and workshops
http://www.limnology.org/links.shtml#meetings

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.

Berning, B. & A.N. Ostrovsky. 2011. *Omanipora pilleri* nov. gen. nov. spec., a new lepraliomorph bryozoan (Cheilostomata) from Oman. Annalen des Naturhistorischen Museums in Wien, Serie A 113: 511-523.

Ernst, A., Manda, S. & Zágoršek, K. (2011): Cryptostome bryozoan *Stictoporella frondosa* (Počta, 1894) from the Silurian of Bohemia. – Neues Jahrbuch für Geologie und Paläontologie, Abhandlungen, 260 (1): 79-85.

Gontar, Valentina I. 2011. The fauna of Bryozoa of the Sea of Azov and the Caspian Sea. Journal of International Scientific Publications 5(3): 129-149.

Gorjunova, R.V. 2010. O paleozoiskih mshankah roda Ascopora Trautschold. Paleontol. J. 44(2): 21-33.

Gorjunova, R.V. 2011. Semeistvo Coelotubuliporidae fam. nov. i morphologicheskie parallelismy v evolyutsii mshanok. Paleontol. J. 44(5).

Gorjunova, R.V. 2011. Carboniferous Bryozoans of the Order Rhabdomesida of the East Europian Platform. Paleontolol J. Vol. 45(8): 1-106.

Okamura, Beth, Hanna Hartikainen, Heike Schmidt-Posthaus, and Thomas Wahli. 2011. Life cycle complexity, environmental change and the emerging status of salmonid proliferative kidney disease. Freshwater Biology 56: 735-753.

Okamura, Beth and Stephen W. Feist. 2011. Emerging diseases in freshwater systems. Freshwater Biology 56: 627-637.

Okamura, B., O'Dea, A. & Knowles, T. 2011. Bryozoan growth and environmental reconstruction by zooid size variation. Marine Ecology Progress Series 430: 133-146.

Okamura, B., Hartikainen, H., Schmidt-Posthaus, H. & Wahli, T. 2011. Proliferative kidney disease as an emerging disease: the importance of life cycle complexity and environmental change. Freshwater Biology 56: 627-637. DOI: 10.1111/j.1365-2427.2010.02465.x

Pachut, J. F. and P. M. Fisherkeller. 2010. Inferring larval type in fossil bryozoans. *Lethaia,* 43:396-410.

Ramalho, Laís V., Muricy, G., and Taylor, Paul D. 2011. Taxonomic revision of some lepraliomorph cheilostome bryozoans (Bryozoa: Lepraliomorpha) from Rio de Janeiro State, Brazil. *Journal of Natural History,* 45 (13–14): 767–798.

Rust, S. and Gordon, D.(2011) 'Plio-Pleistocene Bryozoan faunas of the Wanganui Basin, New Zealand: stratigraphic distribution and diversity', New Zealand Journal of Geology and Geophysics, 54: 2, 151 — 165.

Ryland, John S., John D.D. Bishop, Hans De Blauwe, Aliya El Nagar, Dan Minchin, Christine A. Wood, and Anna L.E. Yunnie. 2011. Alien species of *Bugula* (Bryozoa) along the Atlantic coasts of Europe. Aquatic Invasions 6(1): 17-31.

Schwaha, Thomas, Timothy S. Wood, and Andreas Wanninger. 2011. Myoanatomy and serotonergic nervous system of the ctenostome *Hislopia malayensis*: Evolutionary trends in bodyplan patterning of Ectoprocta. Frontiers in Zoology 8: 11. doi: 10:12186/1742-9994-8-11

Wyse Jackson, P.N. (2011) Rediscovery of a type specimen of *Retepora pluma* Phillips, 1836, the type species of Penniretepora d'Orbigny, 1849 (Fenestrata, Bryozoa) and replacement of its neotype, Irish Journal of Earth Sciences, 29, 15-18.