

Newsletter of Micropalaeontology

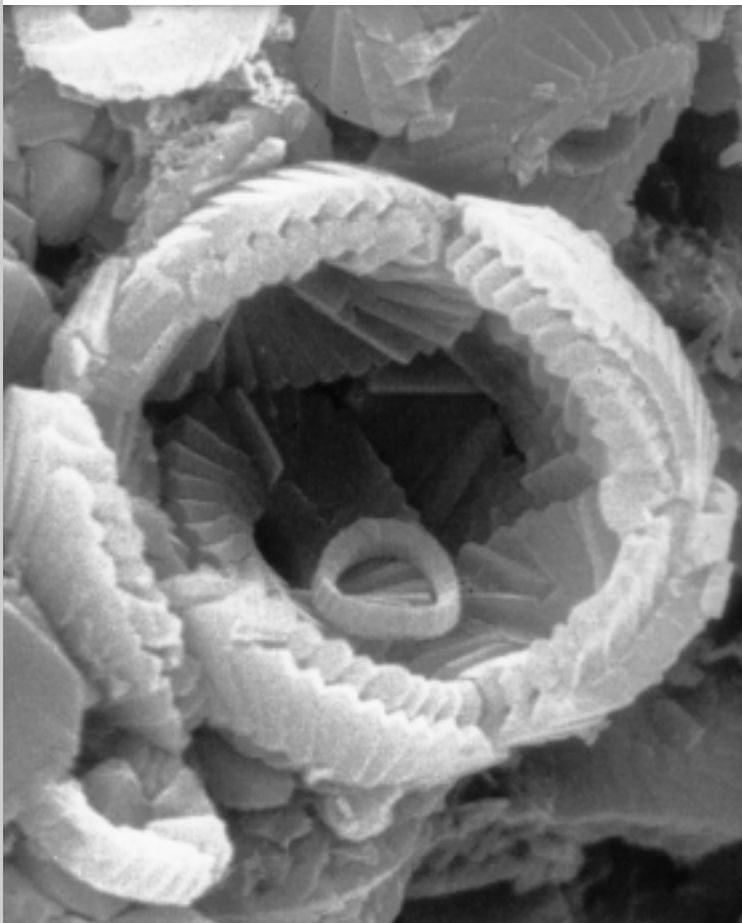


December 2000
Number 63

Edited by Jennifer Pike

Inside this Issue

- 3 Editorial
- 5 Society News
- 8 Statement of Accounts
- 11 Obituary
- 12 Specialist Group News
- 18 Officers & Group Representatives
- 23 Micropalaeontology News
- 27 Photo Gallery
- 28 Conference & Meeting Reports
- 29 Forthcoming Meetings
- 31 The Book Shelf and Book Reviews



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British Micropalaeontological Society
<http://www.bmsoc.org>

Editorial

Jenny Pike

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Welcome to the Winter 2000/2001 edition of the Newsletter of Micropalaeontology - an ever-evolving newsletter with improvements being made all the time!!

Front Cover credits

Thanks to your contributions, this issue has a front cover photograph so it is immediately obvious to a casual reader what our business is. The SEM image is a broken *Watznaueria fossacincta* coccosphere, with a protococcolith nestling inside, from the White Stone Band of the Kimmeridge Clay Formation. The nanofossils of the KCF are under investigation at UCL/NHM as part of the NERC Rapid Global Geological Events project. The image was supplied by Dr Jackie A. Lees (UCL) to celebrate her becoming the new Chair of the Nanofossil Group.

Gallery

We also have the beginnings of a fledgling Gallery, with some beautiful images supplied by John Evans. Please keep sending me your favourite microfossil photographs. I am hoping to supply you, in return, with photographs of all the Society Officers and Group Representatives in the next issue (a intriguing idea put forward by Jamie Powell) - a Rogue's Gallery perhaps . . . although this may be the first that many of these people have heard about it! Towards this end, this issue has some delightful pictures of John Gregory, the Silicofossil Group Secretary, doing whatever it is that takes him offshore so frequently - if you want to replace him with photos of silicofossils instead, please send them in! Also, in time for the next issue, Mark

Parnell bravely has agreed to adapt the BMS logo to include a Silicofossil . . . watch this space.

Micropalaeontology News

This issue also has a News section, which includes three articles of general interest to micropalaeontologists. I hope to expand this to include reviews of journal and book articles. Next time you read a paper that you found really fascinating, don't just file it or cite it, write a short summary paragraph and send it to me. Not only will this keep the members in touch with developments in the broad field of micropalaeontology, some of your colleagues from your own discipline may well have missed it!

Newsletter Production

After consultation with other Officers and Group representatives of the Society, I have decided to slightly alter the dates that the Newsletter is produced. It is difficult fitting the production of the April/May issue into an academic lifestyle, so future summer issues will be produced in June/July. This will also help get around the fact that I am going to spend most of spring 2001 and a large part of spring 2002 bobbing around in a boat in various parts of the the Antarctic Ocean - looking at diatoms, of course!

This does not mean that you, as members of the Society, can neglect your duty to send me interesting copy to include in the Newsletter. The new deadlines for submitting copy will be 31st May and the 1st November, but please feel free to send me copy at anytime.

If you are eligible, don't forget to send in your applications for the BMS Grants-in-Aid and the new Charles Downie Award. See the Newsletter for details.

BMS FOUNDATION

The BMS Foundation is a sponsorship scheme to help support the Journal of Micropalaeontology. The Foundation is made up of members, non-members and institutions who wish to support the science of micropalaeontology via the production of the Journal. Any level of subscription is welcome. A minimum annual donation of £25 is suggested; donors of £25 or more will be acknowledged in the Journal and the Newsletter.

Subscription is welcome at any time. Please send donations to James B. Riding, Treasurer, British Micropalaeontological Society, British Geological Survey, Keyworth, Nottingham, Nottinghamshire, NG12 5GG, UK. Please make cheques/money orders/bankers drafts payable to "British Micropalaeontological Society Foundation". If you wish to pay by Visa or Mastercard, please include amount you wish to donate, the card number, expiry date and cardholders address. If you wish to pay by Switch, please include the amount you wish to donate, the Switch Number, card issue number, expiry date and cardholders address.

BMS Foundation Donors of £25 or over (December 2000)

R J Aldridge	M A Kaminski
R A K Attewell	K L Knudsen
J A Burrell	G V Laursen
A L Carreno	R Lundin
A J Gooday	J W Murray
D W Haig	H J Oertli
M B Hart	J B Riding
N Hooker	C J Todd
J R Haynes	L Trevisan
A Igasrashi	

Society News

Secretary's Report

James Powell

<ajp@dinosystems.co.uk>

ANNUAL GENERAL MEETING 2000

The 2000 AGM took place on Wednesday 15th November in the Lecture Theatre One of the Cruciform Building, University College London. About sixty members attended which was a very good turn out in view of the considerable public transport difficulties operating at the time. Thanks are due to Professor Alan Lord for allowing the Society the use of UCL's facilities, and to the Local Secretary, Jim Davy, who made all the arrangements with his customary efficiency.

During Society business, Dr James Powell and Professor Malcolm Hart were re-elected unopposed to the posts of Secretary and Journal Editor respectively. In addition, Article 4 (Membership) of the Constitution of the Society was amended so as to remove the limit of five Honorary Members at any one time. The last sentence of Article 4 now reads: "There is no limit to the number of Honorary Members at any one time."

Following Society business, two excellent talks were presented which generated much discussion.

Dr Martin Head (Godwin Institute for Quaternary Research, University of Cambridge) on "Listening to cysts - dinoflagellates of the late Cenozoic" and Professor Jan Pawlowski (Station de Zoologie, Université de Genève) on "Molecular view on origin, macroevolution and speciation of Foraminifera"

Following the AGM and lectures, a wine

reception with posters displays took place in the North Cloisters of UCL. The following posters were on display:

James Eldrett (Southampton Oceanography Centre, University of Southampton): Palynological analysis of Eocene sediments, Norwegian-Greenland Sea.

Martin Head (Department of Geography, University of Cambridge): Dinoflagellates from the last Interglacial (Eemian) of Ristinge Klint, Denmark: evidence for elevated temperatures in the southwestern Baltic Sea.

Martin Head (Department of Geography University of Cambridge) and Geoff Norris (Department of Geology, University of Toronto): Pliocene of Eastern England dated by North Atlantic dinoflagellate cyst stratigraphy.

Sarah-Jane Jackett and Elspeth Urquhart (Department of Geological Science, University College London): Early Miocene Palaeoceanography of the Eastern Central Atlantic.

Sameena Khan, Elspeth Urquhart and Jürgen Thurow (Department of Geological Science, University College London): Radiolaria and Cenomanian-Turonian environments of Hacho de Montejaque, Penibetic, southern Spain.

Mike Stephenson (British Geological Survey, Nottingham) and Peter Osterloff (Petroleum Development Oman): The Lower Gharif deglaciation event: the first possibility for pan-Gondwanan Permo-Carboniferous correlation.

Elspeth Urquhart and Jürgen Thurow (Department of Geological Science, University College London): Radiolarians from the upper of the Perapedhi Formation, Cyprus.

Jason Woodward (Department of Geological Science, University College London): Biostratigraphical controls on timing and rate of thrusting of the Eastern External Zones of the Betic Cordillera.

DIRECTORY OF MEMBERS

The Directory of Members is near completion. Individuals who did not renew their 2000 membership before the end of November have been deleted from the Society's database. It is intended that the Directory will be issued annually and should prove to be a valuable source of information for BMS members. Future editions will include telephone and facsimile numbers, Email addresses, single website references, and specialist group affiliations. If there any errors in the details, please contact the BMS Secretary directly.

GRANTS-IN-AID

The BMS operates a grants-in-aid scheme designed to help student members of the Society in their field work, conference attendance or any other activity related to their research. A maximum of £200 will be awarded to each successful applicant, and a total of £600 is available annually. Application forms are available from the BMS Secretary, and must be submitted by 28th February 2001.

Webmaster's Report

Ian Boomer

<ian.boomer@ncl.ac.uk>

The BMS web pages are generally updated within 24hrs of my receiving information; some are updated more regularly than others and I may start to 'clean-up' some of the old pages. For instance, conference/meeting reports on the website will only be kept for 12 months after the date of the meeting. Please keep sending me all the information that you would like to see added, or updated on the website.

ISI Web Contents Citation

The Institute for Scientific Information (ISI) who run valuable online bibliographical resources, such as the Web of Science, have included the BMS Website in their "Current Web Contents" site. So, now there is even more reason to keep getting your information to me to maintain this link.

CHARLES DOWNIE AWARD

The late Charles Downie was one of the pioneers of palynology in the U.K. and a mentor who guided the thinking and development of a large number of postgraduate students who passed through the University of Sheffield. Through the efforts of former colleagues at Sheffield, a permanent memorial has now been established to recognize Charles' contribution to micropalaeontology. An annual award will be made to the BMS member, who in the opinion of the BMS Committee, has published the most significant paper, in any journal, based upon his or her postgraduate research.

The first award of £200 will be made for the best paper published during 2000 and will be presented at the BMS AGM in November 2001. Nominations should be submitted either to the appropriate BMS Specialist Group, or the BMS Secretary by 28th February 2001.

Dr James Powell, BMS Secretary,
Dinosystems, 105 Albert Road, Richmond, Surrey TW10 6DJ, England, UK
Tel: +44 20 8948 6443; Fax: +44 20 89405917; Email: ajp@dinosystems.co.uk

Charles Downie Memorial Award Contributors (December 2000)

G. A. Booth	R. S. W. Neville
B. Braham	B. Owens
J. P. Bujak	T. L. Potter
G. Clayton	A. J. Powell
G. L. Eaton	S. M. Rasul
G. A. Forbes	M. Razzo
K. J. Gueinn	J. B. Riding
A. M. Harding	W. A. S. Sarjeant
R. Harland	J. Utting
K. Higgs	D. Wall
P. J. Hill	M. J. Whiteley
A. Hossein Zahiri	G. L. Williams
W.A.M. Jenkins	

Treasurer's Report

Mike Stephenson
Interim Treasurer
<m.stephenson@bgs.ac.uk>

I am pleased to report that the finances of the society are in a healthy state. I have paid for Volume 19 Part 1 and we have sufficient funds to cover Part 2. Most of the subscriptions for 2000 are now in, thanks to a reminder that was sent out to 'late payers' in October. Amongst the highlights this year have been the substantial royalties (for 1998 and 1999) received from Kluwer. Also included in the accounts is the Downie Foundation (over £2000) to which members will be able to contribute until November next year. Even without the Downie income we will go into the next financial year with a healthy surplus.

Returning Treasurer's Report

Jim Riding
<j.riding@bgs.ac.uk>

I have now moved back to BGS from my spell of work with the Australian Geological Survey Organisation and consequently will be returning to my duties as BMS Treasurer which were interrupted in September 1999. I would like to thank my colleague Mike Stevenson who stood in for me while I was down under. Mike did a fine job and the finances of the Society are in very good shape. For the first time since I can remember, we have sufficient funds in hand to pay for one part of the Journal. It is the long term aim, however, to have enough money to cover an entire volume. I would like to thank those members who have responded to a reminder to pay their 2000 subscriptions. Unfortunately, we will have to terminate the membership of those members who have failed to pay this year's

annual subscription. I hope to have the invoices for 2001 sent out during the first half of January.

As documented elsewhere in this Newsletter, Bernard Owens decided to establish a Fund in memory of Professor Charles Downie and wrote to as many of his ex-research students as possible requesting donations. The capital in the fund will generate interest, which will provide an annual prize to the winner of a postgraduate student competition. Many of Charles's students have already sent generous donations. If you knew Charles and wish to make a donation to the fund, please contact me at j.riding@bgs.ac.uk with your credit card details. BMS will administer the fund and the committee will judge the prizewinner. It was recently decided that the cash prize would go to the BMS student member who, in the committee's opinion, has authored, or co-authored, the best paper on a micropalaeontological topic. The research is to have emanated from postgraduate research at any level and may be part of a multidisciplinary study. It should be published in an established, peer-reviewed journal. If you wish your paper to be considered, please send a copy to the BMS Secretary, Jamie Powell (DinoSystems, 105 Albert Road, Richmond-Upon-Thames, Surrey TW10 6DJ) or send a copy to the relevant BMS specialist group Secretary. The first Charles Downie Memorial award will be for papers published in 2000 and is to be judged at the next committee meeting in March 2001. The award will be made at the 2001 Annual General Meeting.

I am pleased to announce that the American Association of Stratigraphic Palynologists (AASP), BMS and the North American Micropalaeontological Section of SEPM (NAMS) will hold a joint meeting in London in September 2002.

BRITISH MICROPALAEONTOLOGICAL SOCIETY

STATEMENT OF ACCOUNTS FOR FINANCIAL YEAR 1999-2000

INCOME		EXPENDITURE	
Balance from year 1998/1999	8563.75	Journal of Micropalaeontology	
Membership subscriptions		Volume 19, Part 1 (inc. postage)	10464.00
Individual/Student for 1999	136.00	Volume 19, Part 2 (inc. postage)	10464.00
Individual/Student for 2000	8823.00	ESTIMATE	
Individual/Student for 2001	80.00	Total Journal of Micropalaeontology	20928.00
Total Membership subscriptions	9039.00	Newsletter of Micropalaeontology	
		Postage/packing for No. 61	215.00
		Postage/packing for No. 62	215.00
		ESTIMATE	
		Total Newsletter of Micropalaeontology	430.00
Library subscriptions for 2000	11401.34		
Total subscription income	20440.34	Annual General Meeting 1999	
		Hire of lecture theatre	465.07
Miscellaneous income		Speaker's expenses	30.40
Sale of Journal volumes. 1-18	115.00	Hospitality expenses	207.28
Advertising revenue	140.00	Total Annual General Meeting 1999	702.75
BMS Foundation (inc. 2000/01)	787.00		
Book royalties (Kluwer, 98-99)	3647.14	Miscellaneous outgoings	
Interest from two bank accounts	443.72	Secretary's expenses	221.36
Downie Foundation	2245.00	Direct Debit commission/fees	18.95
Other	45.83	Credit card services/commission	300.38
Adjustment for estimate made in 1999 accounts	18.00	Travel/food expenses for meetings	210.49
Total Miscellaneous income	7441.69	Charity bequest	50.00
		Honorary members plaques	537.37
		Refunds	25.00
		Internet fees	23.25
		Seymour & Balfour EFT charges	72.65
		Direct debit payments	155.00
		IFPS subs.	128.25
		Post charges for 2000 invoices	81.47
		Grant -in-aid payments	600.00
		Total Miscellaneous outgoings	2424.17
TOTAL INCOME	36445.78	TOTAL EXPENDITURE	24484.92

BALANCE FOR FINANCIAL YEAR 1999/2000

£11960.86

This financial year ran from 5 November 1999 to 1 November 2000

Mike Stephenson (Stand-In Treasurer in Jim Riding's absence)

Mark Williams and Ian P. Wilkinson (Honorary Auditors)

Journal Editor's Report

Malcolm Hart

<mhart@plymouth.ac.uk>

Journal of Micropalaeontology

As the Newsletter goes to print Volume 19/2 is about to appear. During the current year we have received 22 submissions of papers and notebooks. This is on a par with other years and the number of submissions appears to be reasonably steady. We already have most of the material for the April 2001 issue in the pipeline. I would like to thank all those who have acted as reviewers during the current year. The great majority of these individuals do a very thorough job and, through their efforts, we are able to maintain the quality of the journal. The Committee of the British Micropalaeontological Society is hoping that the Journal will be available on-line in the near future. This is being facilitated by the Geological Society Publishing House who also publish the hard copy of the Journal.

Journal of Micropalaeontology 19/2 Contents

1. Ostracods from the Upper Jurassic (Oxfordian-Tithonian) of southern Germany
U Schudack & M E Schudack
2. Ynezidium, a new genus within the Gonyaulacaceae (fossil Dinophyceae)
J Lucas-Clark & J Helenes
3. Diatom fluxes in surface sediments of the Goban Spur continental margin, NE Atlantic Ocean
R Bao, H de Stigter & T C E van Weering
4. Subdivision of the dinoflagellate cyst Family Suessiaceae and discussion of its evolution
R Bucefalo Palliani & J B Riding

5. Systematic review and evolution of the early Cytheruridae (Ostracoda)
R Whatley & I Boomer
6. 'Organic nannofossils': a new type of palynomorph from the Palaeogene of the North Sea
P A Hochuli
7. Note on the preservational nature of ornamentation in sphaeromorphs assignable to Tapajonites Sommer & van Boekel, 1963 (Prasinophyta?)
E Turnau
8. Review of the dinoflagellate cyst Subtilisphaera? inaffecta (Drugg, 1978) Bujak & Davies, 1983 and S.? paeminosa (Drugg, 1978) Bujak & Davies, 1983
B Courtinat
MICROPALAEONTOLOGY
NOTEBOOK
9. Kinnekullea comma (Jones, 1879), a trans-Iapetus ostracod locum for the late Ordovician Dicellograptus anceps graptolite Biozone
M Williams, J D Floyd, C G Miller, D J Siveter & P Stone

Special Publication Editor's Report

Malcolm Hart

<mhart@plymouth.ac.uk>

Special Publications

There are currently two Special Publications in production with a third being considered. The Society is open to any suggestions for new volumes and intending authors/editors are invited to contact Malcolm Hart <M.Hart@plymouth.ac.uk> in the first instance.

Obituary

Brian Michael Funnell M.A., Ph.D., F.G.S.
1933-2000

Brian Michael Funnell died in May 2000. He was a micropalaeontologist of international renown, a past chairman of the BMS who was awarded honorary life membership in 1999 in recognition of his contribution to the society.



Brian attended the City of Norwich School and was a founder member of the Paramoudra Club - forerunner of the Geological Society of Norfolk. Following his B.Sc. in Natural Sciences at Trinity College Cambridge he studied for a Ph.D., also at Cambridge, on the benthic foraminifera of the "Craggs" of East Anglia, especially from the continuous sequence of the Ludham Borehole. The Ludham foraminiferal and pollen sequences (the latter examined by Richard West) were important in first recognising the pre-glacial Pliocene and Pleistocene climatic fluctuations in the southern North Sea Basin. Following the successful completion of his Ph.D. Brian held a number of positions at Cambridge University where he was attached to the Marine Geology group.

In 1961 he was awarded a Harkness Fellowship which took him on a one year post-doc to Scripps Institution of Oceanography, La Jolla, taking with him his then young family. Here, under Fred Phleger, he undertook some of the earliest detailed work on deep-sea pelagic sediments using planktonic foraminifera, which in association with Bill Riedel, led directly to the classic book "MICROPALAEONTOLOGY OF OCEANS", edited by Funnell & Riedel (Cambridge University Press, 1970) - a pioneer pre-DSDP study. These two close friends and colleagues were some of the

first scientists to really develop the link between micropalaeontology and palaeoceanography with all that this implies for climate change studies.

On his return to the UK in the late 1960's he was one of the founding faculty members of the School of Environmental Sciences at the University of East Anglia - very much a case of a local boy makes good.

Brian had a large say in the school's early direction and was later appointed Head of Department (and eventually Dean of the School).

Brian was Chairman of the BMS from 1984 to 1986. He also served on a number of UK scientific advisory panels and sat on a number of NERC committees. He retired about 7 years ago from the UEA but until his illness, continued to work a few days a week at the university having been made an emeritus Professor in 1994. He continued to publish into the late 1990's, especially on the Quaternary of the UK and played an important role in the recent NERC LOIS Special Topic, particularly with respect to the project dealing with the Holocene evolution of the north Norfolk Coast.

In summary, Brian's career was marked by a breadth of interests: Micropalaeontology to Oceanography to Environmental Science in the broadest sense. He maintained parallel interests in Neogene and Quaternary micropalaeontology throughout East Anglia, the Pacific, Indian and Atlantic oceans. He will be missed as a researcher, supervisor, colleague and friend.

Ian Boomer & Alan Lord

Specialist Group News

Foraminifera Group

The Foraminifera Group held a very successful annual meeting on 5th May 2000 at the Natural History Museum (abstracts published in Newsletter of Micropalaeontology No. 62). The meeting was attended by over 50 micropalaeontologists including, once again, a number from Europe. Ten presentations were made that spanned virtually the entire gamut of foraminiferal research. Refreshments were sponsored by Chevron (COPI). The following day Dr John Whittaker lead a field trip for Group members to the Fleet to examine modern nearshore benthic foraminiferal habitats and review the role of foraminiferal studies in his research in the area. A very pleasant time was had by all. The Foraminifera Group's Spring Meeting will take place on Friday, 4 May 2001 in the Palaeontological Demonstration Room of the Natural History Museum in London. Anyone wishing to contribute a short technical presentation (or present a poster) should submit an abstract to Andy Henderson. The deadline for abstract submission is 31 March 2001, and these will be published on the BMS web site and in the Newsletter of Micropalaeontology. Students and professionals are encouraged to present updates on their research, techniques, industrial applications, software, movies, etc.

Additional information about the meeting and field trip will be available on the website <www.bmsoc.org>.

Andy Henderson
Chairman

Microvertebrate Group

Sixteen members of the group gathered in Fife in mid-December to examine and sample the Brigantian (Lower Carboniferous) section exposed between Pittenweem and St Monance, in a trip led and organised by Mark Dean. The (by now) traditional evening of talks was held at the group's accommodation, the Caledonian Hotel in Leven. After last year's medieval courtroom and moot hall in the Ribble Valley, the Caledonian continued the theme by laying claim to be Scotland's oldest surviving hostelry. A diverse range of talks was presented by Dick Aldridge, Howard Armstrong, Phil Donoghue, Giles Miller, Mark Purnell and Paul Smith in the usual informal, if interrogatory, conditions. The second day saw a pilgrimage to the foreshore at Granton to see the mortal remains of the Granton Shrimp Bed before going on to the Pal Ass annual meeting in Edinburgh. The latter was a relatively quiet year for the group, although Phil Donoghue and Mark Purnell both presented talks in the graveyard slot on the last afternoon.

Paul Smith
<SMITHMP@ersfs1.bham.ac.uk>

Nannofossil Group

The main thing to report in terms of recent Nannofossil Group activity is, perhaps, that there is not much to report. The Meeting planned for Sheffield in June had to be cancelled, given the lack of response from the Members. Given that last year's Meeting never left the drawing board for the same reason, it seemed that a pattern was emerging. As such, the Group Officers initiated an e-mail discussion by the Members regarding the sense in the continued existence of a group with such low levels of activity. It has, however, been decided that the Group should continue; it

will, at least, provide a framework for any future increase in activity.

Jackie Lees (University College London; j.lees@ucl.ac.uk) has taken over from Jeremy Young (Natural History Museum) as Chair. Thanks go to Jeremy for all his input in this role. I remain as Secretary (but have a new address: University of Milan; ben.w-bell@unimi.it). We are currently discussing how to increase both our membership and the appeal of our activities - there is no doubt that the Group has potential, given the presence of a healthy 9 Group Members at the recent International Nannoplankton Association conference in Bremen, Germany. Watch this space!

Ben Walsworth-Bell
<ben.wbell@unimi.it>

Ostracod Group

The Ostracod Group has had a quiet few months since our last Field Meeting in the English Lake District (report below). It was hoped that in this issue of the Newsletter we would be able to report on a mass foray across the Channel for an Autumn Talks Meeting in Brussels (being hosted by Koen Martens of the Royal Belgian Institute of Natural Sciences). Unfortunately, the proposed timing of this was inappropriate given its proximity to the start of the academic year, meaning many interested parties were unable to make it – regretfully, therefore, it had to be cancelled. Rest assured, we shall learn from this strategic error when organising further raids on the European mainland and may well resurrect this meeting in the future.

We would also like to congratulate Jonathan Holmes on his recent move to become Reader in Environmental Change and Research Director of the

Environmental Change Research Centre at UCL where, amongst other things, he will continue to co-ordinate the short courses on Holocene Climate Variability and (with Dave Horne, University of Greenwich) Ostracod Analysis.

Ostracod Group Spring Field Meeting

To be held on the first weekend in March 2001, Friday 2nd to Sunday 4th. The meeting will be based in the Bridlington / Scarborough district in the east of England. This will give us the opportunity to visit the classic Yorkshire coastal sections which include the Upper Jurassic clays and the Lower Cretaceous Speeton Clay, Upper Cretaceous Chalks, and the Quaternary Bridlington Crag deposits. Please contact either Ian Slipper <I.J.Slipper@gre.ac.uk> or Mick Frogley <m.r.frogley@sussex.ac.uk> to express your interest and keep the ostracod group thriving.

Finally, I have also moved recently, to take up a Lectureship in Physical Geography at the University of Sussex, where I hope to be introducing a substantial ostracod element to the palaeoecological courses! If you have any newsworthy items for inclusion in the Group report, or wish to suggest venues for meetings, please don't hesitate to get in touch.

Mick Frogley
<m.r.frogley@sussex.ac.uk>
Ostracod Group Secretary

BMS Ostracod Group Field Meeting
31st March – 2nd April 2000: The English Lake District

And so it happened that at the end of March a small group of hardened ostracodologists bravely ventured to Bowness-on-Mere in the Lake District to convene this year's Ostracod Group Spring

Weekend Field Meeting. Ian Slipper and Caroline Frost rather cunningly had arrived a day early and were already fully acclimatised by the time Dave Horne arrived on Friday afternoon. Mick Frogley and Nicky Johnson brought up the rear in the arrival stakes, the penalty for which appearing to be exclusion from the local Greek restaurant where the others had made an impressive start. Attempts to storm the eatery proved futile (the door was locked), meaning that the late-comers were forced instead to sample the delights of the Italian restaurant across the road. Shame. The group was eventually united in the Royal Oak, where gossip was exchanged and the itinerary announced: we would be collecting a variety of live samples from a series of lakes, ditches, puddles, tarns and any other damp patches in the area that might possibly hold ostracoddy life as we knew it.

The B&B was very comfortable, warm and friendly, but the true test of these places is always the breakfast...which in this case did not disappoint, providing a formidable start to the days field-work (it would have lasted us all day, but we felt obliged to top it up regularly, just to be sure). Saturday morning was bright, clear and sunny as the collective gathered for the off, suitably dressed (in Mick's case perhaps a little too well dressed – his field trousers possessed immaculate creases!) and keen as mustard. Our first stop was at the rather beautiful Loughrigg Tarn, one of G.S. Brady's original sites. Here, while Nicky struggled a little with 'stuck-welly' syndrome, the sampling produced both *Cyclocypris* and *Metacypris cordata*, along with a selection of the inevitable candonids. On returning to the cars, Dave began to study the drainage ditch nearby, although concern was expressed about the high organic content and the proximity of the nearest house (!). Undeterred, Dave impressed the group with skills undoubtedly gained during a mis-spent youth by catching

individual specimens of *Psycrodromus robertsoni* by hand (although we somehow doubt that this sport will become as popular as trout tickling).

After elevenses in the Kirkstone Galleries at Skelwith Bridge (how very classy!), it was on to Coniston and its 'old man'. Leaving the cars at the top of a steep track, we made our way to a couple of sampling localities, the delightfully-named Boggy Tarn and Boo Tarn. This time it was serious, as Dave donned his chest-high waders and became the 5th Telly Tubby – in Boo Tarn, he had to sample from a spring hole in the Coniston Limestone that must have been more than 4ft deep! Although the fauna seemed to be somewhat sparse from both of these sites, *Cyclocypris*, *Cypria* and *Candona candida* were identified (previous sampling has yielded a more substantial list). Lunch was taken at the Black Bull Inn at Coniston. The local brew – Bluebird Bitter from the Coniston Brewing Co. – was very well received. Mick summed things up “hmmm, very light, the sort of drink you want to sup all day...pray for rain!” Alas for Mick, the rain stayed away and we were soon off to Coniston Lake. Out came the deep-water ostracod hunting equipment and we took to the high seas in a couple of rowing boats (with memories of the Fleet trip of a couple of years ago uppermost, particularly the circular navigation problems of boats with anyone named Ian in them!). Mick and Nicky (the Cambridge contingent), took one boat, the others (a sort of proxy-Oxford contingent) another: and the race was on! At a suitable point in the middle of the lake (“well, about here'll do”) Dave and Ian wrestled with their grab-o-matic sampler to retrieve lots of clay and suitably organic, beastie-rich deposits from over 5m down. Disaster then struck the Oxford crew – no sample bottles, resulting in plenty of 'being prepared' advice emanating from the

Cambridge boat. Fortunately, Dave rarely travels without his buckets (with teddy bears on), which eventually saved the day. After an hour or so, the sky began to bruise and a mad dash for the shore ensued, Cambridge redressing the recent Boat Race defeat (Nic rowing like buggery!) and winning by several (hundred) lengths – hurrah!! A session of mass communal sieving (along with informed discussion of how crap it must be to be a duck in this cold weather) was followed by a retreat to the nearest tea-shop for warm beverages, fresh scones and mutterings about how the blue rinse brigade (perpetually on mystery tours of the Lakes) seemed to invariably get the best seats in these places. The field day was rounded off with a quick jaunt to a local view-point (via a steep road known rather splendidly as ‘The Struggle’) before returning to the B&B.

I shall draw a discrete veil over the exploits of our motley band in Bowness that Saturday evening. Sufficed to say that good food, good company (several of Dave’s musically-gifted friends) and copious amounts of alcohol (beer, wine, beer, Baileys, and more beer Mick, oh dear, oh dear...) meant that the singing and playing went on into the small wee hours. Next morning however, there were one or two rather drawn and haggard faces braving breakfast, prompting Mick (nursing the Dark Lord of all hangovers) to announce that he was leaving his bushy tail in its box today...

The first, bracing stop of the morning, however, put paid to any sluggish heads as we intrepidly took to the floating fen around the margins of Skelsmergh Tarn. It became rapidly apparent that a bizarrely choreographed ‘trampoline’ technique needed to be employed to move around for sampling, with the ever-present possibility of disappearing through the surface of the vegetation into the icy waters of the tarn at any moment. Oh, the excitement.

Metacypris cordata and *Candonopsis kingsleii* were identified immediately, with the hope that *Scottia pseudobrowniana* (collected here previously) would be found on returning the sample to the lab.

Elevenes were taken in the fading splendour of the isolated Shap Wells Hotel (with eerie echoes of *The Shining...*), before we were chased out by a marauding band of blue rinses on yet another mystery trip of the Lakes. Outside the hotel, a series of sluggish seepages between the river and the road yielded specimens of *Eucypris virens* and lots of *Psychrodromus olivaceus*, previously unrecorded from this locality. Alas, this was to be our final stop of the day, so after a round of appropriate farewells most of the crew dispersed off down the M6 clutching full sample bottles, pursued by the blizzards which swept the area later that afternoon. Blimey.

All in all, despite it being a distinctly intimate gathering, the weekend was an enormous success, thanks entirely to Dave and Ian’s organisation and the relaxed attitude of the others (who didn’t want to be bossed about!). Plans are afoot for the Autumn meeting to be held in Belgium later this year – watch this space!

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Palynology Group

The Palynology Group has remained inactive. An attempt to draw on the enthusiasm of members to revitalise activity has failed. The Group Chair had discussions with a number of Group members during a recent visit to Sheffield University. A lack of interest in general meetings was expressed (in the current fiscal climate it was felt that an absence from work and travel costs could not be justified). It has been suggested that interest in meetings may increase if the

meetings could be held on a specific theme and/or concurrently with major conferences that would attract a palynological presence. With a view to this, the Group are intending to hold a Palynology Group meeting at the Natural History Museum next year on a date to be announced. The use of the internet to maintain contacts and serve members interests was thought to be more appropriate than general meetings. With this in mind it is suggested that an e-group be formed if a suitably computer literate volunteer can be found for week-to-week management. If you are interested in either becoming a member of, or hosting, the e-group, contact either the Palynology Group Chair or Secretary.

2000 A.A.S.P. Meeting, Reno, Nevada, 13-16th November
The A.A.S.P. meeting in Reno this year took place in association with the Geological Society of America. As befits one of the largest geoscience organisations in the world, the attendances were huge as thousands of geologists converged on Reno and it's casinos.

There had been concerns voiced before the meeting that the sheer size of the GSA could cause the palynologists to be swamped. However the excellent organisation by Thomas Demchuk and Fred Rich, as well as a good turnout of abstracts ensured that the palynology session was spread over two days (13-14th) and comprised two oral sessions and one poster session. The presentations were very diverse, and were more wide-ranging than the traditional stratigraphical focus. The topics covered included the use of palynology as a tool in forensic sciences, plant-insect interactions as well as case studies from the Cambrian to the Recent.

Complete contents of all the abstracts submitted are published in Abstracts with

Programs, v. 32, no. 7 (Geological Society of America).

Jennifer Greenhalgh
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Silicofossil group

The Silicofossil Group Meeting, arranged for August 2000 had to be postponed. Several contributors agreed to present talks on topics ranging from diatoms as climate change indicators to Callovian-Ryazanian radiolaria of the North Sea. In order for you to see what you could have missed, we are publishing the talk abstracts below. The meeting will be rearranged for the late Spring 2001, not necessarily with the same set of speakers, so if you are interested in this meeting (presenting or attending) please contact the Silicofossil Group Secretary, John Gregory <john@jgregory.demon.co.uk> as soon as possible. A big thank you goes to Cathy Stickley and John for arranging the postponed meeting last year, at UCL.

Jenny Pike
Silicofossil Group Chair
<pikej@cardiff.ac.uk>



Silicofossil Group Secretary John Gregory, being held hostage on Valhall, offshore Norway. Donations towards paying a

ransom to get him back should be sent to the Silicofossil Group Chair.

Alternatively, send some photos of your favourite siliceous microfossils (to Jenny <pikej@cardiff.ac.uk>) or some news for the Silicofossil Group (to John <john@jgregory.demon.co.uk>)

Abstracts

From the Greenhouse to the Icehouse- and back? Diatoms and climate change since the late Cretaceous
Alexander G. Mittlehner

Diatoms are today the most abundant and diverse group of microscopic algae, occurring in both marine and freshwater environments. The earliest record of truly planktonic diatoms is from the Campanian when the group as a whole expanded rapidly, possibly in response to prolonged periods of nutrient enrichment or eutrophication in areas of intense upwelling, and in epicontinental seas adjacent to terrestrially-derived nutrient influx. Diatom resting spores also appeared and show a marked increase at the K/T boundary, although the group as a whole shows no great extinction crisis, a marked contrast to calcareous plankton groups. Although diatom assemblages show gradual changes during the Paleocene, it was not until the mid Eocene that a fundamental shift in generic composition occurred. This changeover coincides with the first major provincialism of assemblages and is related to the changeover from "Greenhouse" to thermohaline ocean circulation, as Antarctica finally became separated from Australia and set in motion the stepwise cooling of the Antarctic and the Southern Ocean. This process continued through the later Eocene and Oligocene, and further provincialisation of diatom assemblages portrays these changes. The next major diversification of diatoms occurred in the

Miocene, with more marked differentiation in the northern Pacific and Atlantic being linked to the first major cooling of the northern hemisphere and prolonged episodes of upwelling occurring here also. The "El Nino" events can be traced back to this period and are shown in the diatom record in the central and eastern Pacific. Further cooling occurred during the Pliocene, culminating in the first main northern hemisphere glaciation which marked the onset of the Pleistocene epoch. Enhanced diatom production is a feature of more vigorous upwelling during glacial maxima.

A combined approach for analysing laminated diatomites from the Southern Ocean: Preliminary results from ODP Leg 177

Ivo Grigorov, Richard Pearce & Alan Kemp
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Cores from ODP sites 1091, 1093 & 1094 in the Atlantic sector of the Southern Ocean, have revealed frequently occurring laminated sediments throughout the last million years. Well-preserved sediment fabric has been observed just prior to, or immediately after climatic optima. These millimetre scale laminations offer a high-resolution record of changes in Southern Ocean hydrography and biogenic opal fluxes, during glacial-interglacial transitions. Sediment fabric and diatom fluxes have been analysed using thin section backscatter electron imagery together with absolute diatom counts. This combined approach allows reconstruction of past productivity and export from the euphotic layer, in order to detect changes in hydrography and track Polar Front excursion.

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Mid Jurassic to earliest Cretaceous
(Callovian – Ryazanian) Radiolaria of
The North Sea Basin
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Eleven wells/exposures from the North Sea, spanning the Mid Jurassic (Callovian) to Earliest Cretaceous (Ryazanian) time interval, have been examined for radiolaria. The inclusion of 2 more wells from the Norwegian and Barents Seas has been used for comparative purposes and contributed to the taxonomic understanding of the less well-preserved North Sea radiolarians. Electron Microprobe analysis of radiolarian tests revealed that:

- a) the oldest recovered radiolarians are exclusively preserved as pyrite
- b) the replacement of silica by calcite, pyrite or sphalerite has not usually occurred totally
- c) the pyritised radiolaria do not necessarily have their tests completely replaced by pyrite, although under light microscope this looks to be the case. It is possible that this replacement may be more intense in older tests
- d) there is no correlation between the appearance of the non-pyritised tests in reflected light and their chemical composition

A total 129 species/morphotypes from 392 samples has been described and illustrated with scanning electron and light microscope micrographs. By employing careful processing techniques for extraction from the host lithology (boiling in a solution of Sodium carbonate) and taking into account the commonly poor preservation of radiolarians, their biostratigraphic value has been demonstrated by means of the Unitary Associations (UA) method. The ranges of

52 taxa have been used for computer treatment with the BioGraph programme, from which 18 Unitary Associations have been established. These were grouped into 5 zones that were correlated to the standard ammonite zones (figure):
Biozone 1 ?early Callovian to mid Kimmeridgian (mid *mutabilis*)
Biozone 2 mid Kimmeridgian to Early Volgian (*scitulus*)
Biozone 3 Early Volgian to Mid Volgian (*glaucolithus*, tentatively)
Biozone 4 Mid Volgian to latest Mid Volgian (*oppressus*, tentatively)
Biozone 5 Latest Mid Volgian to Late Ryazanian (mid *stenomphalus*)

The rate of faunal turnover has been estimated using the method of Guex (1991). There is a low similarity for most of the Unitary Associations (gaps in the fossil record). High extinction rates of radiolaria may have been occurred in the late Kimmeridgian to Early Volgian and Early to Mid Volgian.

The North Sea radiolarian assemblages, as well as those recovered from the Norwegian and Barents Seas are Northern Boreal in character, *sensu* Pessagno et al. (1993). The assemblages are characterized by the lack of pantanelliids and the presence of parvicinguliids and praeparvicinguliids. *Perispyridium* (?) spp. is also present (in the Middle Jurassic of the North Sea basin). Typical Tethyan morphotypes such as *Acanthocircus* or *Mirifusus* are absent, although such tests might be expected to be absent from the preparations of the North Sea samples (poor preservation).

Silicofossil evidence of Late Quaternary changes in The Poukawa Basin, New Zealand.

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Earlier work (Robinson et al. 1984) found peat layers 90 metres underground in the Poukawa basin. But they could not be dated and the pollen record was unclear because it included reworked tertiary pollen. A new core (197 m long) was collected in 1997 and silicofossils were separated with sodium polytungstate. This showed abundant phytoliths, sparse freshwater diatoms and chrysophycean cysts are present in the peats. The upper half of the core mostly consists of colluvial sediments which contain fragmented sponge spicules, marine diatoms and radiolaria reworked from marine mudstone in the catchment. These reworked marine microfossils indicate reworked intervals which were sedimented during periods when the catchment was devegetated by droughts. Presence of freshwater fossils indicates swamp deposits which were sedimented during wet periods with stable vegetation. Phytoliths from sedges and grasses are predominant during wetter periods and those from shrubs and trees during drier periods. Palm phytoliths at c. 145 m depth indicate a warm interglacial period. This has been dated by U/Th as belonging to warm Oxygen Isotope Stage 5e.

Robinson, P.H., Hull, A. G., & Jaegers, A. 1984. New Zealand Geological Survey Report G92 25 pp.

Backscattered Electron Imagery Analysis of Early Pliocene Laminated Ethmodiscus Ooze, ODP Site 1010

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Giant diatoms from the genus *Ethmodiscus* Castracane are a ubiquitous, but relatively rare, component of the warm-surface ocean plankton. *Ethmodiscus* oozes have been

documented as occurring during the geological past; however, the debate over the mechanism of formation of these oozes is still unresolved. This presentation documents the nature and occurrence of early Pliocene *Ethmodiscus* ooze from Ocean Drilling Program Site 1010 (Leg 167). The dominant diatom has been identified as *Ethmodiscus rex* (Rattray) Wiseman & Hendey. The sediment fabric of the ooze interval has been analysed using scanning electron microscopy, specifically backscattered electron imagery. This has shown that the sediment consists of an irregular alternation between laminae rich in *Ethmodiscus* fragments, mixed sediment laminae comprising silt grains, clays and nannofossils, and horizontal to sub-horizontal burrows filled with nannofossil clay that is similar to sediment deposited above and below the diatom-rich interval. The short stratigraphic occurrence of *Ethmodiscus* ooze at Site 1010 precludes any substantial contribution to the general debate over the mechanism of formation of these deep-sea oozes; it is suggested, however, that the *Ethmodiscus* ooze documented here could be the result of a combination of both physical and chemical oceanographic processes. The ooze occurs at the top of a diatom-rich interval and below a diatom barren interval. The diatom-rich interval represents the time when Site 1010 lay within the centre of the California Current upwelling regime, whereas by the time the diatom barren interval was deposited, the California Current had migrated landward of Site 1010. The early Pliocene *Ethmodiscus* ooze represents the period of time when the margin of the California Current crossed over the position of Site 1010, possibly characterised by a low phosphate concentration (John Barron, Pers. Comm) and also by frontal mechanisms active at the margin of this major current system.

ODP Leg 189: Initial diatom discoveries from the Tasmanian Seaway

Catherine Stickley* & Leg 189 Shipboard Scientific Party

*Environmental Change Research Centre, University College London

In March-May 2000, ODP Leg 189 drilled 5 sites in the Tasmanian region of the Southern Ocean to better understand the relationships between tectonics, climate, Antarctic cryospheric evolution and palaeoceanography, during the development of the Antarctic Circumpolar Current (ACC). Since its initiation in the late Eocene and throughout its early evolution, the ACC led to progressive cooling and glaciation in Antarctica. Today, the ACC continues to 'refrigerate' this continent and plays a vital role in the thermohaline circulation. The final break-up of the supercontinent Gondwana and subsequent opening of the Tasmanian Seaway in the latest Eocene, was a critical step in the early evolution of the ACC. During the Oligocene, Australia continued to drift northwards and the Southern Ocean expanded. In the early Miocene, the Drake Passage opened enabling the ACC to freely circulate Antarctica for the first time. The biotic response to these major tectonic episodes was immense and is important for detailing the timing and nature of such events.

Over 4.5 km of Late Cretaceous to late Quaternary marine sediments were recovered during Leg 189, including a near-continuous record across the Eocene/Oligocene boundary. Neritic diatoms are prolific in middle-upper Eocene and lowermost Oligocene sediments. In conjunction with dinocysts, they will be useful for reconstructing palaeoenvironment including productivity (trophic status), water energy levels, relative salinity and sea-level, for both the

Indian and Pacific Oceans. During the early Oligocene, marked floral changes and increased diversity imply increasing oceanic influence and productivity. Abundant Oligocene to Quaternary diatoms will be used to construct the first calibrated Oligocene-Holocene diatom biostratigraphy for south of Australia. The Neogene floras indicate fluctuations in the influence of warm/temperate and Subantarctic water masses over Site 1170, heralding meridional shifts in the position of the Subtropical Convergence. At Site 1172, similar fluctuations may signal variations in the influence of the warm East Australian Current.

Micropalaeontology News

Aberystwyth Micropalaeontology Collections transferred to The Natural History Museum, London

After 124 years, Geology (as a single honours subject) will no longer be taught at the University of Wales, Aberystwyth. With the retirement of Professors John Haynes and Robin Whatley, the world famous school of micropalaeontology will also, to all intents and purposes, cease to exist, although we can be sure both of them will remain active as researchers for some time to come.

Under the circumstances, it is pleasing to report that the extensive Aberystwyth Micropalaeontology Collections have recently been presented to the Department of Palaeontology, The Natural History Museum, London.

John Haynes (who had obtained his Ph.D. in 1955) came back to Aberystwyth in 1959 after a spell in the Oil Industry, mainly to start a Diploma course in Micropalaeontology under Professor Alan Wood. Alan Wood saw this as a logical step for the small research school which he had been developing since his arrival in 1947. Early doctorates had included such famous names as Terry Adams, Tom Harris, Deryck Bayliss, Graham Jenkins and Ron Walters, almost all of whom subsequently made their names in the commercial world. Robin Whatley joined the staff in 1965, having completed his Ph.D. at the University of Hull. After this the Diploma course was expanded to a formal, taught M.Sc.

Between them and over the years, both John and Robin began to build up a formidable research collection into which

was also incorporated material worked on by their Diploma, M.Sc., and Ph.D. students. In fact it was a stipulation that each student had to leave behind a written-up and well curated collection, on which he/she had based their research, as well as a copy of the thesis. Latterly, a special Micropalaeontology Museum was set aside on the top floor of the Llandinam Building to hold these collections, and a (part-time) curator was appointed. By the time John Haynes took early retirement in 1993 (but with a part-time contract until 1996) he had supervised over 80 M.Sc. dissertations and over 30 M.Phil and Ph.D. research students. Robin must have supervised a very similar number in a 35 year period, a remarkable feat.

Following agreement between The Natural History Museum and Professor Robert Dodgshon (Director of the Institute of Geography and Earth Sciences, Aberystwyth), the collections were brought to London in two batches in May and September and necessitated the hire on both occasions of a 7.5 ton truck! The majority of the collection consists of foraminiferal and ostracod material but there are also a few small collections of coccoliths and conodonts. There are 62 microslide cabinets, associated residues, samples and in most cases a record file and/or a copy of the thesis. 229 researchers or students are associated with the collection, which includes material from almost 100 countries or oceans. Thanks to good curation practises at Aberystwyth, everything came well labelled and card-indexed. All the slide cabinets, theses, and record files are now safely stored in South Kensington, and are available to visitors. Students' residues and associated rocks, together with Haynes and Whatley's own extensive research and rock collections, are housed at our out-station in Wandsworth, London.

Thanks mainly to the endeavours of Giles Miller, the Aberystwyth Micropalaeontology Collection has already been electronically databased. Soon, this should be accessible on the Internet but for the moment enquiries should be addressed to Clive Jones, Collections Manager, Micropalaeontology (phone: (0)207-942-5580, or e-mail: or Giles Miller (phone: (0)207-942-5415, e-mail: cgm@nhm.ac.uk).

Part of the research collection remains in Aberystwyth for the time being as Professor Whatley requires it for writing-up purposes. The associated publications section for each collection is not complete and will be updated in future versions of this electronic database. The old Aberystwyth Microfossil M.Sc. Teaching Collection is also now housed in The Natural History Museum but is not included in the database.

For assistance with the curation, removal and subsequent rehousing and databasing of the collection thanks are due to many people, especially: John Haynes, Robin Whatley, Alicia Moguevsky, Ian Laidlaw (Aberystwyth); and Clive Jones, Giles Miller, Andy Henderson, Aysim Batur, Glen Payne and Joel Whittaker (London).

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Presentation to Professors John Haynes and Robin Whatley

Over the weekend of the 15th and 16th July 2000 over 200 people descended on Aberystwyth for a Grand Reunion to mark the passing of Geology teaching, ably organised by Dennis Bates and Jim Wallace (formerly a student, now the University's Conference Officer).

On the Saturday morning we heard informative and highly entertaining lectures on the history of the Geology Department (by Anton Wyatt), Micropalaeontology at Aberystwyth (by John Haynes) and hard rock studies (by Tony Harris). There were excursions in the afternoon and in the evening a magnificent formal meal, followed by speeches and great conviviality. It was a pretty good wake.

Some time before this event and following discussions between myself and several ex-Aberystwyth micropalaeontologists, it was felt an attempt should be made to contact as many of John Haynes and Robin Whatley's former students as possible and to try to organise a fitting presentation to them; this to be made at the Reunion.

In this I was aided in several ways. First, Anton Wyatt kindly gave me his database of Aberystwyth postgraduates. This was valid up to 1989, when the Department of Geology ceased and the Institute of Earth Studies began. This was updated by John Haynes himself, although he did not know why I was asking him for the names! The Guild of Old Students then wrote, on my behalf, to all the names they had on their files. This was amplified by an e-mail list of commercial contacts that John Athersuch kindly provided. Caroline Maybury, secretly, provided me with an extensive list of contact-addresses Robin keeps of his old students. Many other cunning ploys were undertaken. In the end a pretty large sum of money was collected from old students not only in the UK but from all over the world. Several of Robin's ex-colleagues in Argentina, in particular, gave generously.

Both John and Robin were lured to a spurious meeting before the formal dinner on the evening of the 15th July, thanks to the cooperation of John's daughter

Katherine and Robin's wife, Caroline, although Robin at least must have smelt a rat when he spied Roger Wall (Robin's very first research student), trying to hide in a bush in the car park, beforehand.

Gratifyingly, a large number of former students (spanning 40 years) were present to hear myself present John Haynes with a large cheque (subsequently put towards a laptop computer). Roger Wall, who had come specially from Indonesia, via Spain, then presented Robin with a "Fish-finder" System for his boat and a cheque (spent, needless to say, on fishing tackle). They also each received a card containing a list of donors and the citation.... "From your past students, in grateful thanks for your inspired teaching, supervision and many kindnesses". A fitting tribute for two outstanding careers. We wish them well.

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Robin Whatley (left) and John Haynes, at their presentation. Photo kindly provided by Nigel Haward

Palaeontologia Electronica makes publishing history

Palaeontologia Electronica (PE) is the world's only fully electronic palaeontological journal. In the 15th November 2000 issue, in addition to the usual assortment of cutting-edge technical articles, insightful book reviews, provocative editorials, and a complete run-down on the best palaeontology the internet has to offer, this issue makes scientific publishing history by being the first completely electronic journal to name animal species in accordance with the International Commission of Zoological Nomenclature's (ICZN) guidelines. Up to 1999 the ICZN expressly forbade the naming of species and other taxonomic groups in electronic formats because of concerns about those formats' accessibility and stability. However, with the Fourth Edition of the ICZN's Code of Zoological Nomenclature, the door to electronic publication was opened to allow names to be published on permanent electronic media such as CD-ROM disks.

Palaeontologia Electronica, working closely with the office the ICZN Secretary, is now the first scientific journal to cross this important electronic publishing threshold with the release of an article by David B.Scott, Y. Takayanagi, S. Hasegawa, and T. Saito entitled

'Illustration and taxonomic reevaluation of Neogene foraminifera described from Japan'. In this article three new species of fossil benthic foraminifera are named and described for the first time. In order to ensure the validity of these names, Palaeontologia Electronica Volume 3 is being released simultaneously on the World Wide Web and on CD-ROM. This CD-ROM disk is available for purchase at cost (+ shipping) from the offices of Coquina Press, publishers of the journal (see the new issue for ordering information). As an added bonus, the PE

CD-ROM also contains vols. 1 and 2 - making it a complete archive of all PE issues published to date. This is a significant milestone for scientific publishing in general and serves to underscore how the intellectual world is being changed irrevocably by the electronic communications revolution. It also underscores the leading role Palaeontologia Electronica intends to play in this ongoing revolution. In addition to the Scott et al. article the new issue also covers the fields of evolutionary functional morphology, isotopic bioenvironmental analysis, palaeoceanographical analysis using neural networks, and resolution in 3D laser scan models. Last, but by no means least, we've instituted a brand new home site url address:
<http://palaeo-electronica.org>

Come and see the future of palaeontology - and the future of scientific publishing in systematics - at a computer near you.

Norman MacLeod and Tim Patterson
Co-editors, Palaeontologia Electronica

Palaeontologia Electronica is sponsored by the Palaeontological Association and the Society of Vertebrate Paleontology (Tier 1) and by the Cushman Foundation for Foraminiferal Research, Sociedad Española de Paleontología, British Micropalaeontological Society, Canadian Association of Palynologists, and the Australian Geological Survey Organisation (Tier 2).

Photo Gallery

To begin our photograph gallery, Dr John Evans, from the School of Geography and Geosciences at the University of St Andrews, has provided some beautiful photographs of benthic foraminifera.

These specimens were collected as part of a project that John is working on in the Celtic Sea. For details of the project, visit the website:

http://www.st-and.ac.uk/~www_sgg/personal/jre1link/index.htm

Please continue to send in your favourite photos the Editor.

Figure 1

Species name: *Ammonia batavus*
Collected: Celtic Sea, Station 9, February 1999 cruise, Core 1, multicore slice = 0-0.5cm. Latitude (N) 52° 44.98' Longitude (W) 04° 27.92'. Water depth = 30 m. Specimen size at widest point = 500µm.

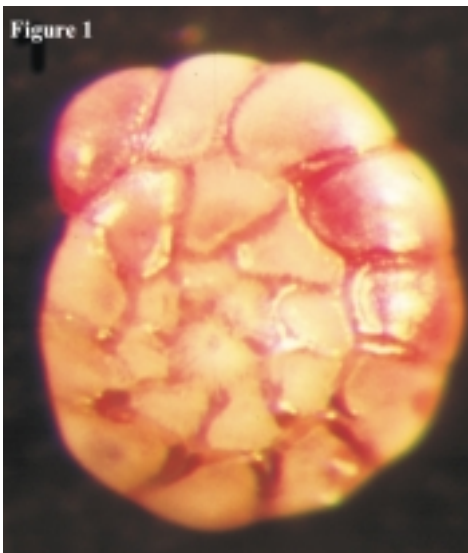


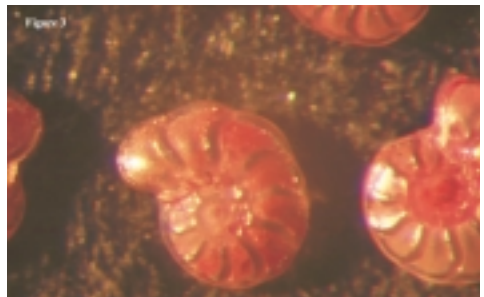
Figure 2

Species name: *Melonis barleeanum*
Collected: Celtic Sea, Station 4, February 1999 cruise, Core 3, multicore slice = 0-0.5cm. Latitude (N) 51° 21.86' Longitude (W) 06° 30.23'. Water depth = 86 m. Specimen size at widest point = 550µm.



Slide 3

Species name: *Hyalinea baltica*
Collected: Celtic Sea, Station 4, February 1999 cruise, Core 3, multicore slice = 0-0.5cm. Latitude (N) 51° 21.86' Longitude (W) 06° 30.23'. Water depth = 86 m. Central specimen, size at widest point = 500µm.



Conference and Meeting Reports

A report for the 2000 A.A.S.P. Meeting, Reno, Nevada, 13-16th November is included in the Palynology Group Report.

Shallow water benthic communities at the Middle-Upper Eocene boundary. Southern and north-eastern Italy, Slovenia, Croatia, Hungary
The 5th IGCP 393 meeting: 18th-31th July, 2000

The 5th meeting of the UNESCO/IGCP 393 "Neritic Events at the Middle-Upper Eocene boundary" (leader of the project Esmeralda Caus, Universidad Autonoma of Barcelona, Spain) took place in Italy, Slovenia, Croatia, and Hungary from July 18th to 31th, 2000. These periodic meetings (every year) were initiated in Basel (Switzerland) in 1996.

The scientific session, organised by Carmela Loriga Broglio and Davide Bassi (University of Ferrara), was held in Ferrara on 21th-22th July at the Dipartimento di Scienze Geologiche e Paleontologiche of the University with two days of oral and poster communications focusing on recent results concerning the Middle-Upper Eocene fossil assemblages from Europe, Jamaica and Japan. The Museo Civico di Storia Naturale of Ferrara (Enrico Trevisani, responsible) is editing in the *Annali del Museo* the abstracts corresponding to the oral presentations and to the posters.

Three main field trips were organised before and after the indoor meeting. A well documented field trip guidebook ("Shallow water benthic communities at the Middle-Upper Eocene boundary. Southern and north-eastern Italy, Slovenia, Croatia, Hungary", Davide Bassi ed., in

press by the *Annali dell'Università di Ferrara*) describes all the localities visited and provides an account on the local stratigraphy and on the regional geology. The pre-meeting excursion (18th July; responsible Filippo Barattolo, University of Naples) focused on the Spirolina Facies of the Trentinara Formation (Late Paleocene-Lutetian) in the Southern Apennines. Three post-meeting field trips followed the indoor meeting. The participants of the three-days field trip (23th-25th July) in the Vicenza province visited Mossano (the Priabonian parastratotype located in the Colli Berici), Priabona (the Priabonian stratotype, located in the Monti Lessini), the Middle-Upper Eocene boundary outcropping at Pradipaldo (Altopiano di Asiago), and the Late Eocene of Possagno (southern Monte Grappa). The organisers of the field trips were D. Bassi (Univ. Ferrara); Giampietro Braga, Bruno Bizzotto, and Paolo Mietto (Univ. Padova); Cesare Papazzoni (Univ. Modena); Enrico Trevisani (Museo di Civico di Storia Naturale of Ferrara). On 24th July the review and discussion session of the meeting was held at the Museo Naturalistico Archeologico of Santa Corona in Vicenza. The third field trip (25th-28th July) was devoted to the Priabonian successions of Povelak, Sustarica, Visnjica, and Ravna Gora in Slovenia and Croatia (responsible Katica Drobne). The fourth excursion took place in Hungary (28th-31th July; responsible Gyorgy Less) where the participants visited the Middle-Upper Eocene successions of Ajka, Urhida, Calvari Hill area, Buda, Kisgyor, Miskolc, and Csokas.

The work during the indoor meeting and the review and discussion session was fairly dense because the firm goal of the research group is to define the shallow water benthic chronostratigraphical subdivisions at the Bartonian-Priabonian

boundary. The data collected from several key localities during the last four years will provide fundamental information about the biostratigraphy of this period by focusing on the high-resolution biostratigraphy based on relevant shallow water index taxa at species level. This means to study the index taxa by oriented sections and by comparing the parameters of their inner morphology at standard enlargements. One of the aims of the research group is to work out a modern palaeontological overview over a considerable taxonomic spectrum. The results of the project will be presented during the "Forams 2002" meeting which will take place in Perth (Australia, February 3-17, 2002).

Davide Bassi
Secretary of the 5th IGCP 393 meeting
<bsd@dns.unife.it>

Forthcoming Meetings

PRELIMINARY ANNOUNCEMENT

The first meeting of the Spore-Pollen Subcommission of the Commission Internationale du Microflore du Paleozoique (CIMP) will take place at University College Cork, Cork, Ireland in September, 2001.

DATES

Conference Monday 3rd Sept to Wednesday 5th September, 2001, inclusive. Field excursion to South Waterford and South Wexford, Thursday 6th to Friday 7th September, 2001. To examine Cambro - Ordovician and Devonian- Carboniferous sections.

ACCOMMODATION IN CORK

University accommodation available in the

Castlewhite Apartment Complex. Cost IR£24 for single room and continental breakfast (per day). There is plenty of other accommodation close to UCC. A list will be provided so that participants may book their own if they wish. Approximate costs Guest houses approx IR£35 B&B (per day), Hotels from IR£50 -£100 B&B (per day).

FIELD EXCURSION

Approximate cost IR£50 which will include: Travel by Coach Cork - South Wexford return, 1 night B&B and evening meal in Fethard on Sea Co Wexford

DEADLINES

Deadline for submission of titles of presentations (oral or poster) - April 1st, 2001; Deadline for abstracts for presentations - May 1st 2001

Information on travel, to from and within Ireland will be provided at a later date.

Please submit expressions of interest and/or titles for presentations in the first instance to: Duncan McLean
<d.mclean@sheffield.ac.uk>

Forams 2002: International Symposium on Foraminifera

Timing of Symposium: Monday 4 February to Friday 8 February, 2002. Venue: The Nedlands campus of the University of Western Australia, Perth.

See Newsletter of Micropalaeontology No 62 for further details, or visit:
<http://www.geol.uwa.edu.au/forams/>

11-13 SEPTEMBER 2002
EXPLORATION BIOSTRATIGRAPHY 2002

University College London

The American Association of Stratigraphic Palynologists (AASP), the British Micropalaeontological Society (BMS) and the North American Micropaleontology Section of SEPM (NAMS) are holding a joint meeting in September 2002 at University College London.

The theme of this international meeting will be recent developments in applied biostratigraphy, and will not be restricted to palynology alone. Contributions will be invited on four main themes:

1. Sequence biostratigraphy.
2. Deep-water exploration.
3. Reservoir/Development studies.
4. Outcrop analogue studies.

The vision for the meeting is to encourage trans-Atlantic exchange of ideas, ultimately to seed new research initiatives. In particular, we aim to develop an integrated multidisciplinary approach in both the academic and industrial realms. There will be no taxonomic or geographical restriction on contributions. Posters will be invited on any micropalaeontological, nannopalaeontological, palynological or biostratigraphical theme.

Post-meeting excursions are planned to the Dorset Coast (Jurassic - Cretaceous), the Isle of Wight (Cretaceous - Paleogene), Kent and Essex (Paleogene), and Suffolk (Neogene).

A circular giving details of the meeting, costs and abstract form will be issued to interested parties early in 2001. The deadline for abstracts and early registration will be 31st March 2002. Expressions of interest should be addressed in the first place to the BMS Secretary, address below.

Contact convenor: Dr James Powell, 105 Albert Road, Richmond, Surrey TW10 6DJ,
England, UK

Tel: +44 20 8948 6443; Fax: +44 20 8940 5917; Email: ajp@dinosystems.co.uk.

The Book Shelf

If, as you are perusing publishers book catalogues, you see a book that you fancy, why not let me know all the details and I will get a review copy for you. In return for a published review, you get a nice new book, the Newsletter of Micropalaeontology gets copy of interest to Members and the publisher gets publicity!

I currently have the following two books for review:

Faure, H., Heine, K. and Singhvi, A. (eds) 1998. Desert Margin Changes in Africa Since 135 ka: Implications for Water, Carbon and Mankind. Palaeoecology of Africa and the surrounding islands v. 25, 301 pp. A.A. Balkema, Rotterdam. Section headings include Mauretania and West Africa; Sahara and Sahel of Northeast Africa; Congo, Eastern and Southern Africa; Arid belt from Israel to China and Arid regions in General.

Middle Devonian Brachiopods, Conodonts, Stratigraphy, and Transgressive-Regressive Cycles, Pine Point Area, South of Great Slave Lake, District of Mackenzie, Northwest Territories. 1998. Geological Survey of Canada Bulletin 522, 191 pp. Part I: Startigraphy and Brachiopod faunas - A.W. Norris Part II: Conodont faunas - T.T. Uyeno

I have a series of six British Geological Survey/ Earthwise publications/leaflets for review. Four are from the "Fossil Focus" series, including corals, brachiopods, fish, bivalves and trilobites. Two are from the

"Holiday Geology" series, including the Lake District Story and Peak District. Anyone fancy looking at the whole batch, or maybe a handful?

I look forward to receiving all your suggestions!!

Jenny Pike
Editor, Newsletter of Micropalaeontology
<pikej@cardiff.ac.uk>

Book Reviews

Molecular Evolution A Phylongentic Approach
R. D. M. Page & E. C. Holmes 1998
Blackwell Science, ISBN 0-86542-889-1, soft covers, 346pp.

Molecular genetics is a rampantly productive field of science, contributing to every aspect of biology. Increasingly this is even reaching micropalaeontology. Molecular phylogenies are providing new evidence to solve long-standing problems in large scale relationships, and in many cases are radically changing our understanding of the macroevolution of the groups we study. The outstanding fossil record of microfossils makes integration of fossil and molecular evidence particularly intriguing and the best calibrations of the molecular clock should come from microfossil studies. Investigations of species-level genetic variability can revolutionise our understanding of microevolutionary pattern and process, with direct consequences for even the most pragmatic aspect of our subject - biostratigraphy. Consequently micropalaeontologists increasingly need to

be able to use and understand the outputs of molecular genetic studies. In particular, being able to intelligently understand a molecular tree is becoming an essential skill. So a useful guide to the subject is something many of us feel a need for. This book comes close to being the ideal reference. It is directly focused on the most relevant aspects of the field, being intended as an high-level textbook of phylogenetic analysis of molecular data. The heart of the book are chapters on the steps from genetic data to phylogenetic trees: aligning sequences; measuring genetic distance; and the minutiae of tree building. In these areas the book is an innovative state of the art summary and probably the best available reference. In addition the book provides excellent reviews of the relevant aspects of gene structure, population genetics, and models of molecular evolution. In these areas larger alternative textbooks are available, but the book provides an excellent well-focused synthesis. In contrast, the practicalities of molecular genetic research - DNA isolation, amplification, and sequencing are only dealt with very briefly, an omission I rather regretted. More predictably there is also no discussion of the problems when dealing with marine protists of obtaining cultures from which to isolate DNA in the first place, or of eliminating symbionts. For most microfossil groups these are, however, key practical problems. The book is carefully structured, it is well-illustrated with clear diagrams, most of which have been specially drawn, and text boxes are used to good effect. As a result much of the content can be derived by browsing the figures and text boxes. This is fortunate since the main text is tough going and dry, not actually unreadable, but certainly not

light entertainment. Micropalaeontologists who are actively involved in phylogenetic research, or who need to teach short courses in the subject, will find this book absolutely invaluable and should buy a copy, if they have not already done so. But the over-worked scientist who feels a general need to learn more of the subject, rather than a pressing necessity, would probably find it too detailed and indigestible.

Jeremy Young
The Natural History Museum
<jy@nhm.ac.uk>

Membership Application Form

Membership is open to individuals and to libraries on the payment of the appropriate annual subscription. Rates for 2001 are:

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Ordinary Membership: £25 per annum Retired membership: £15 per annum

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Please make all cheques payable to "British Micropalaeontological Society" and send with this application form to: James B. Riding, Treasurer, British Micropalaeontological Society, British Geological Survey, Keyworth, Nottingham, Nottinghamshire, NG12 5GG, UK.

Journal of Micropalaeontology

SALE OF BACKPARTS OF VOLUMES 1 TO 12

The BMS holds stocks of backparts of Volumes 1 to 12 of the Journal of Micropalaeontology. The Journal was instigated in 1982 and has rapidly developed into one of the leading journals in the field; the subject matter and geographical scope varies widely and all microfossil groups are represented. Society members, non-members and institutions may purchase backparts of Volumes 1 to 12 inclusive for £2.20 each including second class postage. Domestic postal charges are significantly less, the more copies ordered, for example, full sets in the UK are £28 (£20 + £8 for parcel post and packing). Overseas clients should remit £3.50 per part inclusive of surface mail postage. Pre-payments are acceptable, but clients (especially from continental Europe and overseas) are advised to request an invoice to avoid over- and under-payments. The parts are £1 each exclusive of postage, therefore clients able to buy them direct from the Treasurer (address below) can make substantial savings. Individual copies (offprints) of papers are available at £0.70 each inclusive of (domestic) postage and packing. Author of papers wishing to purchase multiple copies should direct enquires to the Treasurer; bulk discounts are available on papers from certain parts. Please indicate the parts you require in the left-hand column below; a tick will indicate one copy. Should you wish to order multiple copies, please clearly indicate the number you require.

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_____	Volume 8, Part 1	June 1989	Thirteen papers, 130 pp.
_____	Volume 8, Part 2	December 1989	Ten papers, 117 pp.
_____	Volume 9, Part 1	May 1990	Ten papers, 114 pp.
_____	Volume 9, Part 2	March 1991 for 1990	Seventeen papers, 141 pp.
_____	Volume 10, Part 1	August 1991	Fifteen papers, 114 pp.
_____	Volume 10, Part 2	December 1991	Eleven papers, 120 pp.
_____	Volume 11, Part 1	June 1992	Eleven papers, 105 pp.
_____	Volume 11, Part 2	December 1992	fifteen papers, 137 pp.
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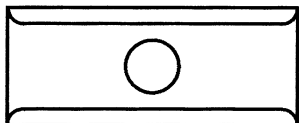
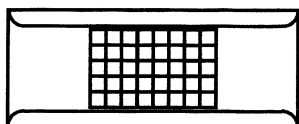
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