



No. 28, Autumn 1995

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## ASSOCIATION MEETINGS PROGRAMME

NB: Members are reminded that all our meetings are open to the public and should be advertised as such.

● **PALAEONTOLOGICAL ASSOCIATION REVIEW  
SEMINAR: Biomineralization -processes, patterns and  
phylogenetic implications in calcifying groups**

The Natural History Museum, London, UK

*8th November 1995*

Palaeontologists have long been aware that shell structure can be a character of considerable importance in understanding phylogeny and in recognizing affinities of extinct organisms. More recently biomineralization, the study of mineral formation by organic systems, has developed into a dynamic field of multidisciplinary research. The first objective of this seminar is to explore how insights from studies of biomineralization processes can enlighten our understanding of shell structure and phylogeny in groups with calcareous skeletons. Conversely, a second objective is to see how knowledge of pattern and diversity of calcified skeletons can be used to constrain investigations of process.

The seminar will consist of a session on general principles (biomineralizing processes, mineralogy of calcite and aragonite, investigatory methods), followed by a session devoted to particular taxonomic groups (e.g. coccoliths, sponges, molluscs). Broad subject areas will be reviewed at a level understandable to the advanced undergraduate while introducing some of the latest developments. The seminar will be held in the Demonstration Room, Palaeontology, from 10.30 to 16.30; space will be available for poster displays.

*Provisional* speakers include Professor S. Mann (Univ. of Bath), Dr J. D. Taylor (NHM), Dr R. Wood (Univ. of Cambridge), Dr M. J. Weedon (NHM), Dr J. R. Young (NHM), Dr G. Cressey (NHM) and Dr T. Ehrendorfer (UCL).

Organizers: Paul D. Taylor (tel: 071-938-9409; e-mail: P.Taylor@nhm.ac.uk) and Jeremy R. Young (tel: 071-938-8996; e-mail: J.Young@nhm.ac.uk).

## ● **PALAEONTOLOGICAL ASSOCIATION ANNUAL CONFERENCE**

University College, Galway  
*Saturday 16th December - Wednesday 20th December 1995*

The [Abstracts and programme](#) for the Annual Conference are available.

## ● **PROGRESSIVE PALAEONTOLOGY**

**Wednesday 24th April 1996, at The University of Reading,**

## **Postgraduate Institute for Sedimentology.**

Abstracts requested for talks and posters.

Deadline: March 1st 1996

For further details please contact:

Chris Perry or Vicky Beck

Postgraduate Research Institute for Sedimentology

University of Reading, P.O. Box 227

Whiteknights, Reading, RG6 6AB

tel: (01734) 875123 ext. 7971

fax: (01734) 310279

e-mail: slrperyc@reading.ac.uk

## **● THE PALAEOONTOLOGICAL ASSOCIATION AND THE NATURAL HISTORY MUSEUM PROGRESSIVE PALAEOONTOLOGY WORKSHOP**

**Wednesday, 7th February, 1996**

**Computers in Palaeontology**

Suggestions for abstracts requested for talks, posters and demonstrations in all fields of palaeontology; on how modern computers can be used for both research and publication

For more information contact Sian Evans or Neale Monks at the Department of Palaeontology, Natural History Museum, Cromwell Road, South Kensington, London, SW7 5BD. Telephone 0171-938-9007, Fax 0171-938-9277. e-mail: N.Monks@nhm.ac.uk

*Apple Macintosh and IBM-PC platforms are equally welcome, and can be provided for demonstrations*

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## **ANNOUNCEMENTS**

### **● SOCIETY OF VERTEBRATE PALAEOONTOLOGY SUBSCRIPTIONS**

Subscription rates effective 1 Oct 95 - 30 Sept 96:

Volume Sets (4 issues) and 1996 (Volume 16) subscriptions:

Institution/Non-Member: \$125 for all volume sets

Member subscription: \$55 for all volume sets

Individual back issues:

Institution/Non-Member back issue: \$40 each

Member back issue cost: \$20

News Bulletin:

3 issues per year (includes postage/handling): \$25

Optional overseas Air Mail (per year): \$12

Biography of Fossil Vertebrates

All volumes (inc. postage/handling): \$135

The Society of Vertebrate Paleontology (SVP) does not allow for agency discounts. For further information, please contact: Pamela D'Argo, JVP Managing Editor, Society of Vertebrate Paleontology, 401 N. Michigan Avenue, Chicago, IL 60611-4212, USA. Tel. 312/321-3708 \*Fax. 312/245-1085. Internet ID: SVP@SBA.COM

## ● **STUCK ON ECHINOIDS?**

The Ulster Museum is seeking a good home for several hundred specimens from the Upper Chalk of Seaford Head, Sussex. These are mainly *Micraster spp.* with bryozoan and other encrusters, which were collected by R. E. H. Reid for a research project on encrusting communities which was subsequently abandoned. Approximately one-third of the material has been cleaned of chalk matrix, the remainder is 'as collected'.

Anyone interested in this material should contact: Andy Jeram, Geology Department, Ulster Museum, Botanic Gardens, Belfast BT9 5AB. Tel: 01232 381215.

## ● **A NEW INTERNET WORLD-WIDE WEB SITE: FINDING THE WORLD'S FIRST COMPLETE DINOSAUR SKELETON**

An extensive new World-Wide Web feature takes viewers back in history and down into the 30-foot ravine where the world's first nearly-complete dinosaur skeleton was found in 1858 in Haddonfield, New Jersey along the eastern coast of the United States.

The Web site is located on the Internet at:

<http://tigger.jvnc.net/~levins/hadrosaurus.html>

The excavation site is the spot where *Hadrosaurus foulkii* was found and presented to the world as proof that dinosaurs really did exist. The actual place where the bones were found has changed little in 137 years: a heavily wooded ravine with a stream cutting through thick layers of bluish-grey marl where ancient seashells and other fossils can still be found after heavy rain storms.

*Hadrosaurus foulkii*, the first mounted dinosaur skeleton ever put on display, was a major public sensation in the latter 1800s. By the turn of the century, however, the fossil and its Haddonfield excavation site faded from view - and the general interest - in the wake of more stunning dinosaur finds throughout the world.

A recent series of events has focused new attention on the historic significance of this, the discovery site of the world's first nearly-complete dinosaur skeleton - the ground zero of modern palaeontology.

In October 1994, the New Jersey site was declared a National Historic Landmark by the U.S. Department of the Interior's National Parks Service. The Borough of Haddonfield, the Philadelphia Academy of Natural Sciences and the Department of the Interior are collectively planning a ceremony at the site on 26 October, 1995, to celebrate the new Landmark status.

The World-Wide Web *Hadrosaurus foulkii* feature is a serious, adult-oriented reference work with twelve illustrated sections. Professionally written and photographed, it is designed as a total background orientation for news reporters and others involved in the upcoming October National Landmark dedication ceremonies.

It is also of interest to anyone curious about the very beginnings of our society's enduring fascination with giant prehistoric reptiles.

## ● **ANCIENT BIOMOLECULES: INSPECTION COPIES**

From the Prospectus of *Ancient Biomolecules*:

*Ancient Biomolecules* is an international forum for the rapid communication and exchange of important research, ideas and information on preserved biomolecules in ancient materials of any age. The scope encompasses all types of biomolecule and the

methodologies used in their investigation. Particular emphasis is placed on papers addressing either or both of two broad topics:

(1) Factors influencing the preservation or decay of biomolecules in ancient materials The detection of biomolecules in ancient materials, providing that the information extends knowledge and does not merely reproduce past discoveries

Characterization of biomolecular decay products, with particular emphasis on papers that describe the preservation states for a range of biomolecules in a single ancient specimen

Studies aimed at understanding the decay pathways for biomolecules in different types of ancient material, either by characterization of decay products in relevant specimens, or by experimental taphonomy

Attempts to explain how certain types of biomolecule appear to survive for periods longer than predicted by decay rates determined *in vitro*

(2) The exploitation of ancient biomolecules in understanding the biological past

Studies of human evolution, migration and the social organization of past communities

Identification in ancient material of biomolecular markers for disease organisms, and the application of the information to palaeopathology

Studies involving the use of biomolecules as carriers of stable isotope signals that can be used to investigate palaeodiets and palaeoenvironments

Investigations of the origins and evolution of domesticated animals and plants

Carbon-14 and other isotope dating studies based on ancient biomolecules

Chemosystematic, chemotaxonomic and phylogenetic studies of organisms from any period of the biological past

The description of ancient biospheres (palaeoenvironmental and palaeoecological studies)

Free Inspection Copies of this new journal are available. Contact Carfax Publishing Company

PO Box 25, Abingdon, Oxfordshire OX14 3UE, UK *or*

875-81 Massachusetts Avenue, Cambridge, MA 02139, USA *or*

PO Box 352, Cammeray, NSW 2062, Australia

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Tel: +44 (0) 1235 521154. (1 800 354 1420 in USA and Canada)

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## Palaeo-Comment

### On Publicity

'Publicity is facile and transient' says Sue Rigby, bemoaning the poor self-image of palaeontologists: 'why pander to other people's ignorance?' (Palaeo-Comment, Summer 1995). These statements reveal much about 'what has gone wrong with palaeontology'. Publicity may be facile and transient, but it is also *necessary*. Nobody is going to be interested in what you are doing unless you tell them you are doing it. People are ignorant, but that ignorance may be dispelled by publicity. And the old adage that bad publicity is better than no publicity is entirely true. Many controversial issues are raised within palaeontology, and publicity *loves* controversy.

Eight years ago I was on track to becoming a palaeontologist myself when, disheartened by the prospect of spending the rest of my life as a nomadic postdoc, I joined the editorial staff of *Nature*. For most of that time I have been responsible for manuscript selection in most areas of organismal biology - with palaeontology as the centrepiece. (So if *Nature* has rejected one of your papers, it's probably my fault.) Most of my colleagues are molecular and cell biologists. My crusade, as I tell anyone who asks, has been to get as much palaeontology as I can into *Nature*, and I think I have succeeded. There's usually something of interest to palaeontologists in any issue of the magazine. I'd like to think more so than in our main competitors in this area. That task done, my focus is shifting elsewhere to do something about the lamentable way in which scientists present their work to the journals and the public.



Palaeontologists should be streets ahead of other scientists in the race to get their work the attention it deserves. My experience suggests that when it comes to prose style, palaeontologists are far more literate and lucid than any other scientist. The descriptive nature of the work demands literacy that experimental scientists, in the main, do not possess. And, let's face it, the subject matter of palaeontology is far more accessible to the public than that of cell biology. Newspaper readers lap up dinosaurs, fossil hominids, and yes, even conodonts. They couldn't care two pins about *src*-homology domains or seven-transmembrane-helix G-protein-coupled receptors. Sue - and many of you in this society - appreciate this at a practical level. Judged by the number of practitioners, palaeontology gets more than its fair share of column inches. Right now, some palaeontologist, somewhere, is writing a perspective, or a book review, or appearing on radio or TV (oh yes, never forget that palaeontology has the scenery that lab-based researchers would kill for), or generally getting talked about.

So what has gone wrong with palaeontology? Nothing! Palaeontologists are doing all the right things. There is no use bemoaning the lack of job opportunities. That has always been the way (even T. H. Huxley moaned about it), and jobs are scarce whatever you do, in science or out of it. In addition, society demands relatively few palaeontologists compared with (say) doctors, lawyers, immunologists, even journalists. Unemployment among palaeontologists is probably no worse than anywhere else, and is in any case indicative of demand outstripping supply. It probably means that the palaeontologists lucky enough to study fossils for a living are the brightest, best and most committed. The fact that there are more job ads for neurobiologists means that there are more of them to start with, not that there's more choice.

Don't do what museum people tend to do, which is huddle up in coffee rooms for a good moan. Think positive. Be nice to the press office at your institution (yes, there is one, and press officers need things to do. You are the reason they get paid). Tell them what you are doing. Cultivate contacts in the press. Invite them to your site, seminar or demonstration. Your institution will adore you if you get its name into the press. So will your funding agency. If the journalist misquotes you or cuts your story, don't be angry - that's the way it goes. It probably isn't the fault of the journalist (who has a news editor and a team of subeditors eager to trim copy to fit). Make yourself available as a 'pundit'. Appear on live drive-time local radio. Revel in the facile transience of publicity. And pander to other people's ignorance - it will do you credit in the long run. Sue Rigby paraphrases the



Bard, and so shall I - court publicity, put money in your purse: pander to the ignorance of others, fill your purse with money.

*Henry Gee*

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## MEETING AND EXCURSION REPORTS

### • **6th Symposium on Mesozoic Terrestrial Ecosystems and Biotas**

Beijing

*1 - 4th August 1995*

The Institute of Vertebrate Palaeontology and Palaeoanthropology (IVPP) hosted the 6th SMTE - the first of these Symposia to be held in Asia. Over 70 delegates from 13 countries attended the meeting. This was the first opportunity many of us have had to visit China and to meet some of the people behind the publications. This allowed a constructive exchange of information and ideas between Western and Asian scientists, something hampered not only by language, distance and cost, but also by China's isolation from the world scientific community prior to the political reforms of recent years.

Over 50 papers were presented during the Symposium. The words "Mesozoic Ecosystems" were used to their fullest extent so that papers on dinosaur functional morphology ran alongside presentations on palaeoclimates or early mammals. A special workshop on Mesozoic birds was held one evening, reflecting the stunning new discoveries of Cretaceous birds in north-eastern China. The Symposium served to emphasise the contribution that Chinese and other Far Eastern workers are making to our field as well as the continuing progress being made by Western scientists. I hope that the new links many of us made with our Chinese colleagues will endure, allowing international co-operation on a wide variety of research fronts. The conference proceedings have been published as a volume of short papers (6th Symposium on Mesozoic Terrestrial Ecosystems and Biota. Short Papers. Eds. Sun Ailing & Wang Yuanqing, China Ocean Press). Special mention must be made of the Conference banquet, a grand affair, at which we were treated to such delicacies as cuttlefish egg soup, turtle and sea cucumber.

As well as the scientific programme our hosts had organized two field trips. The pre-conference field trip was to south-western China visiting several classic vertebrate localities (Dadi and Dawa sites) in the Lufeng Formation (Lower Jurassic of Yunnan Province), where delegates had the opportunity to wear traditional coolie hats whilst picking up bits of dinosaur from the exposures. This trip also visited Zigong (Sichuan Province) with its world-famous Dinosaur Museum. The original excavation has been protected, from both the weather and developers, by the construction of the Museum over the site. Visitors can see many dinosaur skeletons *in situ* as well as the extracted specimens which are mounted in an adjacent hall. The trip also provided an opportunity to sample the local cuisine: one delegate described the trip as "a gastronomic as well as a palaeontological feast". A post-conference field trip visited Xinjiang Province in north-eastern China. The deserts of Xinjiang have yielded hundreds of fossil vertebrates and have outcrops representative of most of the terrestrial Mesozoic. The staff from Academia Sinica and IVPP worked incredibly hard to make the field trips highly enjoyable and looked after everyone with great humour.

The Symposium was a very successful and friendly one. This was due in great part to the hospitality and organisation of our Chinese hosts who did all that they could to make our stay at the Symposium as comfortable and enjoyable as possible. The next Symposium is to be held in Buenos Aires near the end of the century - the first to be held in Gondwana.

*Paul M. Barrett*

*Department of Earth Sciences, University of Cambridge*

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## **FUTURE MEETINGS OF OTHER BODIES**

### **● Annual Meeting of the American Association of Stratigraphic Palynologists**

Ottawa, Ontario, Canada *11 - 14 October 1995*

Contact Dr. Pierre Richard, Laboratoire Jacques-Rousseau, Laboratoire de paléobiogéographie et de palynologie, Département de géographie, Université de Montréal, C.P. 6128, succursale A, Montréal, Québec, Canada H3C 3J7; Tel. (514)343-8023; Fax (514)343-8008. E-mail: richard@ere.umontreal.ca

## ● **British Micropalaeontological Society Silver Jubilee Meeting**

University College, London, UK  
*18 November 1995*

Six keynote reviews will be given by experts in the fields of calcareous nanofossils, conodonts, foraminifera, ostracods palynomorphs and radiolaria. Registration fee: £5 to BMS members and £10 for non-members. There will be no registration fee for students (members or non-members). Palaeontological Association members will be especially welcome.

Contact: J. B. Riding - Secretary, British Geological Survey, Keyworth, Nottingham NG12 5GG, UK

## ● **Fauna, Flora and Sequence Stratigraphy**

Museum of Paris, Paris, France  
*14 - 15 December 1995*

Organized by Association Paléontologie Française and Société Géologique de France. For further details contact: APF, Fauna, Flora and Sequence Stratigraphy Meeting, Laboratoire de Paléontologie, 8, rue Buffon, F75005 Paris, France. Tel: (33) 40793046; Fax: (33) 40-79-35-80.

The meeting is devoted to the interrelationship between palaeontological and biological processes and sequence stratigraphy. Presentations will be in English or French.

## ● **Origins and Innovations: the First 200 Million Years of Vertebrate Evolution**

Leicester, UK  
*9 March 1996*

Many of the most important innovations in vertebrate body design appeared during the first 200 million years of their evolution. More recently, these key developments in the history of life on earth have been the subject of intense debate and controversy.

This one day symposium, presented by leaders in the field from around the country, will consider the genetics and ecology of vertebrate origins; the evolution of hard tissues and skeletons; the origin of teeth and jaws; and the development of limbs and the colonization of terrestrial habitats.

Provisional speakers include: Per Ahlberg (Natural History Museum), Richard Aldridge (Leicester), Peter Forey (Natural History Museum), Peter Holland (Reading), Mark Purnell (Leicester), Ivan Sansom (Birmingham), Paul Smith (Birmingham).

Fee (inc. refreshments): £17.00/ £14.50 (retired)/ £12.00 (student/benefits).

Contact: The Secretary, Vaughan College, St. Nicholas Circle, Leicester LE1 4LB.

Organized by Richard Aldridge & Mark Purnell on behalf of Vaughan College and The Leicester Literary and Philosophical Society.

### ● **Congress 'Paleogene of South America'**

Santa Rosa, La Pampa, Argentina  
*14 - 18 May 1996*

Contact: Dr Silvio Casadio, Dpto. Ciencias Naturales, Universidad Nacional de La Pampa, Uruguay 151, 6300 Santa Rosa, La Pampa, Argentina. Phone: 54 954 33093; telefax: 54 954 33408; e-mail: [RPMELCHO@ARCRIBA](mailto:RPMELCHO@ARCRIBA)

### ● **Geological Association of Canada - Mineralogical Association of Canada, Joint Annual Meeting**

Winnipeg, Manitoba, Canada  
*27 - 29 May 1996*

For information contact: G. S. Clark, Dept. of Geological Sciences, University of Manitoba, Winnipeg, Manitoba, R3T 2N2, Canada. Phone: (204) 474-8857; Fax (204) 261-7581.

### ● **North American Paleontological Convention - VI**

Smithsonian Institution, Washington, D.C., USA  
*9 - 12 June 1996*

Final Announcement and Call for Abstracts available October 1, 1995. Abstract deadline: **January 19, 1996**. Contact: NAPC-VI, c/o Department of Paleobiology, Mail Stop 121, National Museum of Natural History, Washington D.C. 20560, USA.

### ● **Biotic Recoveries from Mass Extinctions, IGCP Project 335**

Smithsonian Institution, Washington, D.C., USA  
*9 - 12 June 1996*

A symposium on "Biotic Recoveries from Mass Extinctions" will be held during the Sixth North American Paleontological Convention (NAPC 96) 9-12 June 1996 in Washington DC. The first circular is now available from NAPC-96, Dept of Paleobiology, MRC-121, National Museum of Natural History, Washington DC 20560, USA.

Contacts: Douglas H. Erwin, Dept of Paleobiology, NHB-121, Smithsonian Institution, Washington DC, USA 20560, Ph. (202) 357-2053, Fax: (202) 786-2832, email: MNHPB028@SIVM.SI.EDU; and  
Erle G. Kaufman, Sabbatical Address: Earth Systems Science Cntr, Deike 248, Pennsylvania State University, University Park, PA 16802-2711, Ph: (814) 863-9663, Fax: (814) 865-3191, email: claudia@essc.psu.edu

### ● **Third Baltic Stratigraphical Conference**

Tallinn, Estonia  
*8 - 11 October 1996*

The main topic of the next conference, to be held in Tallinn, will be 'High-resolution Biostratigraphy and Baltic Regional Stratigraphy'. Submissions of papers from across the topic are encouraged. The technical programme includes four days of sessions, and a two-day field excursion for the study of mainly early Palaeozoic around Tallinn will be run if there is a sufficient number of participants. The languages of the conference will be Russian and English. Russian presentations will be accompanied by English texts in writing.

The Second Circular will be distributed in December 1995, to those who have sent in a preliminary registration form. Contact: Dimitri Kaljo, Chairman, Institute of Geology, Estonian Academy of Sciences, 7 Estonia Ave, EE0100 Tallinn, Estonia. Phone 372.2.454653, Fax 372.6.312074. E-mail: kaljo@pzgeol.gi.ee

Further information is available in [Newsletter No. 27](#).

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## **BOOK REVIEWS**

● ***Marine Palaeoenvironmental Analysis from Fossils. Geological Society Special Publication no. 83.***

Editors D.W.J. Bosence and P. A. Allison. 1995. 272 pp. 21 contributors. Price £60 hardback.

I suppose the main worry of any such titled project is the extent to which the *ancient* water bodies can be covered, especially in a tome of only twelve chapters. It is inevitable that the modern oceans and earlier versions thereof receive most coverage. And in terms of geological time the Mesozoic and especially the Tertiary will receive most emphasis. So this is not a volume of the Palaeozoic and earlier marine environments; nevertheless, a great deal of information on earlier marine environments is included if you look carefully, and a fairly solid effort has clearly been made to give a reasonable outline.

I emphasize this aspect because to so many palaeoenvironmentalists and, indeed, palaeoceanographers, the subject ends near the base of the Mesozoic, or with the Atlantic and Pacific environments: workers with these interests have modern oceanography, modern marine environmental analysis, and plate tectonics to give them guidance.

In this volume, Smith on bryozoans gives examples from the Palaeozoic and the Tertiary, and this chapter is one of those satisfying pieces that leaves you with the impression of a very thorough coverage, and yet one you can read and will want to refer to again. Goldring on substrates and ichnofossils similarly gives a good run to pre-Mesozoic strata: this is a vast subject area, and the resultant chapter is, to put it mildly, rather intense. The second time I read this chapter I marvelled at its accurate condensation.

Palaeo-oxygenation (a word which will, presumably, remain hyphenated!) is dealt with by Allison, Wignall and Brett rather briefly, but well. As with the above-mentioned papers it covers the Phanerozoic as a whole: I also found a few jazzy names that I shall be able to implant in my own common-English descriptions of black shales!

One of the most impressive contributions is that of Brasier in two chapters on eutrophication and climate change, and evolution and extinction in relation to oligotrophy. The first of these chapters gives some very useful definitions and diagrams that I can understand, which probably means that it is an excellent chapter for undergraduates. His second contribution is, not unnaturally, about foraminifera yet clearly has much wider application, not



least in the consideration of the role of nutrient levels which is the core theme of both his chapters.

Other chapters include Murray on Tertiary microfossils; Perrin, Bosence and Rosen on Miocene reef zonation; Plaziat on modern and Tertiary mangrove environments; Leeuw, Frewin, Van Bergen, Sinninghe Damste and Collinson on organic C in the Holocene and Corfield on palaeotemperatures. The last paper also deals with the Palaeozoic as well as later time.

Finally, I should mention chapter one, a review of the subject by the editors; and chapter two by Bottjer, Campbell, Schuchert and Droser on palaeoecological models and non-uniformitarianism, a valiant attempt to place in perspective and to question the major palaeoenvironmental models.

All in all this book is a good read and an excellent reference work. I suppose it could have been twice as big, but £120 would probably deter most enthusiasts.

*R. B. Rickards*  
*Cambridge University*

### ● ***Extinction Rates.***

Editors J. H. Lawton and R. M. May. 1995. 233 pp. 21 contributors. Price £17.95.

Note that the title of this book is 'Extinction Rates', not 'Mass Extinctions'. I suspect that a very healthy attitude followed this volume from its conception to its birth, a suspicion reinforced in the editorial Preface by the remarks '...we have brought together a coherently organized set of chapters, whose focus is firmly empirical'. This is certainly the case, and it is all the more refreshing for that. If there are polemics in this volume, they are well hidden!

The overall impressive tone of this book is set in the first chapter, by the editors, on assessing extinction rates. Here, as in chapter 2, there is an analysis of the fossil record, including a summary of species longevity for the various groups where this has been measured. I found there my own work on Silurian graptoloids: in 1977 I calculated an average duration of 2 mya. This figure is of the same order as mammals, but much shorter than



for other groups. I have recently reassessed my measurements (as yet unpublished) based upon the great amount of modern research and my latest figure is of the order of 0.5 mya. I think this serves to emphasize that there are always 'monographic' or state-of-research components in whatever set of figures we come up with, so that caution is always necessary when making comparisons.

Another point this first chapter makes throughout, at least by implication, is that it is work at the level of species that is important, not compilations at the levels of genus or family or higher. Compilations at higher taxonomic rankings greatly increase the number of woolly and often indefinable factors, and in chapter two Jablonski steers his course through this particular minefield. Whilst he states the problems very fairly and clearly, I'm not convinced that it gets us very far. Extinction rates and extinction events are best discussed at a species level, whether this is possible on a global basis or only relatively locally. If, for particular groups, this is not yet possible then it carries the implication that new research would be of greater value as a database than the published literature.

Chapter 3 on constancy and change of life in the sea during the Neogene to Recent is a challenging study, at species level, by Jackson. He concluded that not only does punctuation exceed gradualism by a considerable margin in marine invertebrates, but that "there is no necessary correlation between the magnitude of environmental change and the subsequent ecological and evolutionary response".

There are chapters by Cooper on Ice Age insect faunas; by several authors on the past and future extinction of birds; by Greuter on vascular plant extinctions in the Mediterranean region; by Thomas and Morris on extinction rates of British invertebrates (during the past 300 years); all these are admirable chapters raising some deliciously awkward questions.

Then comes a slight change of tack from chapter 9 onwards, beginning with Bond's appraisal of the risks to plant extinction; Lawton on principles of population dynamics (you might understand this - I don't); Nee and co-authors on estimating extinction from molecular phylogenies; Margulis and Austin on monitoring and modelling species decline; Mace on classifying threatened species according to extinction risk and on conservation planning; and finally, logically, Ehrlich on human enterprise and biodiversity loss. Ehrlich concludes that total human energy consumption is usable as an index of global extinction rates. Perhaps it is worth quoting the last sentence of his paper: "That index, however, is not useful politically

because the assumptions upon which it is based are not understood by decision-makers and the general public". In the long term that has to be our own fault.

A superb book this, and a challenging read. The editors have clearly accomplished what they set out to do.

*R. B. Rickards*

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## **Newsletter copy**

Information, whether copy as such or Newsletter messages, can be sent in writing to Dr R. B. Rickards, Dept. of Earth Sciences, Downing Street, Cambridge CB2 3EQ, or Faxed (01223 333450). It would be helpful if longer items of copy could be sent on a Macintosh disk (MacWrite or Microsoft Word format). 3 1/2" PC disks with text in Microsoft Word or in Word Perfect are also acceptable. Disks clearly marked with the owner's name and address will be returned as soon as possible.

Review material, news, emergencies and advertising suggestions to Dr Sue Rigby, Dept. of Geology and Geophysics, University of Edinburgh, Grant Institute, West Mains Road, Edinburgh EH9 5LH, tel. 0131 650 8543, fax 0131 668 3184, e-mail [suerigby@glg.ed.ac.uk](mailto:suerigby@glg.ed.ac.uk).

**Deadline for copy for Issue No. 29 is 31 January 1996.**

### **Advertising in the Newsletter**

Advertising space in the printed paper version of the Newsletter will be made available at the rates given below to any organization or individual provided the content is appropriate to the aims of the Palaeontological Association. Association Members receive a 30% discount on the rates listed.

All copy will be subjected to editorial control. Although every effort will be made to ensure the bona fide nature of advertisements in the Newsletter, the Palaeontological Association cannot accept any responsibility for their content.

£75 for a half page £130 for a full page

These rates are for simple text advertisements printed in the same type face and size as the standard Newsletter text. Other type faces, line drawings, designs etc. can be printed.

**Rates for distribution of separate fliers with the Newsletter:**

1100 copies for worldwide distribution £230

850 copies for worldwide distribution exclusive of No. America £200

600 copies for U.K. circulation only £150

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*Reminder:*  
*Deadline for copy for Issue No. 29 is*  
*31 January 1996.*

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