



International Organisation of Palaeobotany
(Homepage: www.palaeobotany.org)

IOP NEWSLETTER 87

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The views expressed in the newsletter are those of its correspondents, and do not necessarily reflect the policy of IOP. Please send us your contributions for the next edition of our newsletter (February 2009) the latest by 15 February 2009.

President: Gar Rothwell (USA)

Vice Presidents: Ruben Cuneo (Argentina), Carol Gee (Germany), Edith Taylor (USA)

Members at Large: David Ferguson (Austria), Lena Golovneva (Russia), Sun Ge (China)

Secretary/Treasurer: Johanna Eder-Kovar (Germany)

Conference/Congress Member: Harufumi Nishida (Japan)

IOP Logo: The evolution of plant architecture (© by A. R. Hemsley)

NEW IOP EXECUTIVE

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A NOTE FROM THE PRESIDENT

Over the past decade IOP has undergone a dramatic transformation, emerging as a modern scientific organization of global scope. Building on a solid foundation established by two generations of our predecessors and implemented by many years of dedicated service by Mike Boulter and others, we now are able to take full advantage of the tremendous changes in international relationships and the technological advancements of the 21st century. Our recently completed joint IOPC/IPC meeting was the most active and well attended to date, and we look forward to an even more impressive joint congress that will be held in Tokyo, Japan in 2012.

It has been an honor and a pleasure for me to work closely with the two most recent past Presidents of IOP, Else Marie Friis and Margaret Collinson. Both have provided insight and encouragement through the challenging transition to our present operational structure, and their leadership and guidance is greatly appreciated.

Over the next four years I will do my best to continue in their footsteps and to help further strengthen IOP. In the end, however, the goals, direction, and vigor of IOP rest in the hands of the membership. We will be most successful if what we choose to do (or to not do) is a direct reflection of the needs and desires of the membership. Thanks to Jason Hilton and Mihai Popa we now have a centralized web based operation with the potential and flexibility to dramatically improve communication and access to resources. Located at <http://www.palaeobotany.org/>, our website serves as a portal to those resources. Please log on, add or update your personal information, and browse the "Members Area" and other parts of the web site. Check the "time to renewal" date that appears in the middle of your "Members Area Home Page".

If your membership will expire shortly please either renew it on line or send your dues to your Regional Representative (who is identified on the web site). If you have trouble logging on to the web site, merely put your e-mail address on the "Username" line and click the "Forgotten Your Username or

Password?" line. A new password will be e-mailed to you. Once you are logged on, you can go to your personal information in the Members Area and change the password to one you can remember. If you still have trouble logging on, let me know. We'll get you connected.

We are in need of more content in several areas of the web site. Your contributions to this area are resources for your colleagues. To help accelerate this process I have just completed a compilation of my own studies to be added to the Members Area as a combination of links to PDF files on the web and as PDF files that can be downloaded by all current members. Future works will be added as they appear. This will be available soon, and it is only the first of a large number of contributions of this type that we expect to have available shortly. Please let us know what other information and resources you would like to have available. We'll do our best to implement your requests.

Best wishes,

Gar Rothwell
President, IOP

A NOTE FROM THE SECRETARY/TREASURER

Thanks to your confidence the job of the secretary/treasurer has been passed on from Gar Rothwell to me. It is an essential task and great honour to act as "the driving force behind the organisation" as the secretary/treasurer is defined in the IOP-statutes. Thus, I follow up the row of secretaries after Edouard Boureau, Bill Chaloner, Hans Tralau, Mike Boulter, and Gar Rothwell (see also Newsletter 68). Mike invested tremendous time in collecting news and keeping up a distributing system long before the time of the worldwide web. The newsletter was distributed by making copies and spreading it by what we call now snail mail (normal post). The last executive community (especially Margret Collinson, Gar Rothwell, Jason Hilton, and Michael Popa) made strong efforts to

develop the IOP homepage. Soon, most of the community will be able to download the newsletter from the homepage. This is a huge progress and information will be available much faster and cheaper. However, the newsletter must be fed with information from members around the globe. Thus it can only be successful with your assistance. My intention is to produce the newsletter regularly and three times every year (February, June, October). Via your regional representative you will be reminded 3-4 weeks in advance to supply me with information. I would very much like to encourage you to take the chance to contribute with information that may be of interest for our community such as forthcoming meetings, reports on past meetings, job opportunities, address changes, obituaries, news about projects, collections, networks, and any other relevant activity.

Above that, I would also like to encourage you to approach me with suggestions concerning IOP matters. Looking forward to fruitful cooperation.

Johanna Eder-Kovar

NEW REGIONAL REPRESENTATIVES

China WANG Jun

He got his PhD on Palaeobotany from Northwest University (Xi'an) in 1997. His major research interests focus on China's Carboniferous and Permian floras and their ecosystem. Current research projects include:

- 1) A systematic study on Noeggerathiales – a group of Palaeozoic plants with uncertain affinity, most poorly known Palaeozoic plant group.
- 2) A restoration of an Early Permian peat-forming vegetation preserved in air fall tuff in Inner Mongolia. The tuff flora is an exceptionally well-preserved window to the palaeo-ecosystem of so-called Cathaysian realm.
- 3) The evolution of Carboniferous and Permian floras under the background of Icehouse and

Greenhouse transition. Carboniferous and Permian may be the only geo-historical time when the earth had well-developed vegetation and went through Icehouse and Greenhouse climatic changes. The principle of vegetational response to Icehouse-Greenhouse transition during the Palaeozoic could be meaningful for understanding the vegetational change in response to the present Icehouse-Greenhouse transition.

J.Wang

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UPCOMING MEETINGS

26th Midcontinent Paleobotanical Colloquium (East Tennessee State University, Johnson City, Tennessee, USA; March 14-16, 2009).

This year's organizer is (Christopher) Yusheng Liu. To encourage more students to attend this meeting, we will try to keep the registration fees as low as possible. Preliminary considerations are \$80 for professionals and \$50 for students.

Tentative meeting agenda are as follows:

Friday (March 14): Registration. Early arrivals are welcome to visit the Liu & Zavada Paleobotanical lab to see the collections of the late Neogene fruits/seeds and leaves from a newly-found fossil site, known as the Gray Fossil Site, about 7 miles north of the ETSU campus. The ETSU on-campus arboretum, featuring East Asian - North American disjunct plant pairs, is also a nice place for botanists. Mixer will be followed.

Saturday (March 15): Scientific session will run for the whole day. The banquet will be followed by a lecture by ETSU ornithologist Dr. Fred J. Alsop III, who will be talking about the birds in Appalachian.

Sunday (March 16th): A field trip to the Gray Fossil Site and a visit to the on-site and new natural history museum (www.grayfossilmuseum.com) will be planned.

For more information, please contact Dr. Liu at liuc@etsu.edu;

tel. (423) 439-6920, fax (423) 439-5958.

A conference website is now being built and will be announced soon. Stay tuned.

9th North American Paleontological Convention (NAPC 2009, University of Cincinnati, Ohio, USA; June 21-26, 2009)

The centrally-located Cincinnati region is world renowned for its Upper Ordovician fossils and strata, and has a long-established heritage of paleontological research and teaching.

The organizing committee is planning a wide range of activities, including a full slate of regional field trips; a plenary session commemorating the bicentennial of the birth of Charles Darwin and the sesquicentennial of the publication of *The Origin of Species*; workshops on the creationism/evolution controversy and other topics; an evening banquet at the Cincinnati Museum Center; a special social event for students and postdocs; and a range of other social and educational activities.

A conference website has been established at <http://www.napc2009.org/>

The deadline for submission of symposium proposals has been extended to October 31st.

Details may be found at

<http://www.napc2009.org/proposals>

If symposium proposers have any questions or problems they should feel free to contact Arnie Miller, chair of the NAPC organizing committee, directly (arnold.miller@uc.edu). Upon submission of a proposal, an e-mail should also be sent to him to ensure that the submission is viewed promptly.

If anyone is interested in running a field trip, please contact our field-trip organizer, Dr. Carl Brett (brettce@email.uc.edu).

Here are some additional dates to keep in mind:

Abstract submission starts: November 15, 2008
Abstract submission deadline: February 12, 2009
Pre-registration starts: March 15, 2009
Pre-registration deadline: May 21, 2009

We look forward to seeing you in Cincinnati next summer!

The NAPC 2009 organizing committee &
Katherine V. Bulinski
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10th Mesozoic Terrestrial Ecosystems (Teruel, Spain; September 14-21, 2009)

We are pleased to invite you to participate in the 10th Mesozoic Terrestrial Ecosystem Symposium that will take place in Spain. Three Spanish Universities as well as the Fundación Conjunto Paleontológico de Teruel will be involved in the organisation of the meeting.

The symposium aims at examining (1) Mesozoic continental palaeobiotic and/or palaeoclimatic reconstructions, (2) Mesozoic palaeoecology of continental fossil assemblages, (3) the influence of microbial mats in preservation, and (4) Mesozoic amber deposits. We would also like to encourage the application of all specialists on microbial, algae, plant, molluscs, arthropods or vertebrate assemblages.

The whole symposium (pre-symposium fieldtrip, scientific sessions and post-symposium fieldtrips) has been scheduled between September 14th-21st. From the 17th-19th scientific sessions will be held at Dinopolis, in Teruel city, where the Foundation has its principal headquarters.

A first circular including inscription, accommodation, and abstract deadlines will be ready to be sent in November 2008.

Further information is available at:
<http://aragosaurus.blogspot.com/2007/07/10th-mesozoic-terrestrial-ecosystems.html>

42nd Annual AASP meeting (Meadowview Convention Center, Tennessee; Sept 27-30, 2009)

The Palynological Society meeting begins Sunday Sept 27 with all day registration and the evening ice breaker and ends Wednesday, Sept 30, with the business meeting. This will be co-sponsored by East Tennessee State University and the ETSU General Shale Brick Natural History Museum and Visitor Center at the Gray Fossil Site.

We are planning workshops prior to the start of the meeting on Saturday September 26, 2009. A theme for the workshop is tentatively "Educating the next Generation of Palynologists" designed to include the regions K-12 teachers and how they can incorporate lecture or laboratory exercises in the lower grades, and may provide innovative ideas to our academic members. Anyone interested in participating please contact me at the email below.

We also have three public lectures that would begin on Monday afternoon, Tuesday afternoon and Wednesday afternoon, the public and local educators will be invited to attend in addition to our students and professionals to hear the talks, e.g., David Pocknall: "Palynology and Petroleum: Supplying Americas Energy Needs".

We are also entertaining a number of field trips to begin on Thursday October 1, and return Saturday October 3, among the suggestions are "Appalachian Habitats, a trip through the southern Appalachians for bear and bird watching, it will also include local geology", another is a "Visit to Dayton Tennessee to the Rhea County Courthouse (Home of the scopes monkey trials) and then on to Paris, Tennessee for collecting in the Eocene Claiborne Formation of West Tennessee. These localities have superb plant fossils and also produce some very nice pollen floras.

A third suggestion is the Appalachian flora and Cumberland gap either a hiking trip through the gap or a more sedate road trip through the gap and include the Paleozoic of Harlan County Ky.

Any other suggestions are welcome and anyone wishing to take a lead on any of these trips or other trips is welcome to contact me. I would also like to

open the field trips up to local teachers so they too can mingle with the professionals.

Finally an art exhibit at the Natural History Museum will open during the Sunday icebreaker entitled "The microscopic World of Palynology". This will display a wide variety of photographs from professional paleobiologists and palynologists. If you think you have any artsy photos with this theme submit them to Michael S. Zavada zavadam@etsu.edu.

Anyone wishing to put together a symposium please contact me as soon as possible at Zavadam@mail.etsu.edu
<http://www.palynology.org/meetings.html>

8th European Palaeobotany – Palynology Conference (Hungarian Natural History Museum, Budapest, Hungary, July 6-10, 2010)

The Hungarian Natural History Museum is the center for palaeobotanical research in the country and thus has been selected as the venue for the conference. A unique exhibition, specially mounted for the occasion of the EPPC conference, will present a rich display of various palaeobotanical findings from Hungary.

In accordance with the tradition of the EPPC conferences, oral and poster presentations are welcome to introduce the latest findings and results of palaeobotanical and palynological research. We are looking forward to receiving presentations focusing on Paleozoic, Mesozoic and Cenozoic; taxonomy, palaeofloristics, taphonomy, palaeoecology, and palaeoclimate.

Symposia, poster sessions, and meetings associated with workshops will be included in the scientific program.

EPPC conferences usually host a small but enthusiastic group of Quaternary (Pleistocene and Holocene) pollen and plant macrofossil scientists. Various pre- and post-conference field trips will be organized for the participants to ensure that

everybody can select what fits their personal interest.

Come and join the 8th European Palaeobotany-Palynology Conference and experience the Hungarian hospitality.

You are welcome in Budapest in 2010!

For details please see www.eppc2010.org

Invitation to the IPC/IOPC 2012 in Tokyo

Japanese IOP members are very glad to be able to invite all of you to Tokyo in the year 2012 for sharing fruitful time of scientific discussions and various cultural exchanges. Although the main body of invitation is the Palynological Society of Japan, we are keeping a tight connection with the PSJ members in order to follow up the successful Bonn joint meeting. The conference date is planned to be in early- to mid-September. Preliminary information is available from the following PSJ web page. Please note that Japan is full of natural, cultural, historical, and scientific interests, and most importantly is not an expensive country anymore. See you very soon.

Harufumi Nishida

Just try to visit:
<http://wwwsoc.nii.ac.jp/psj3/ipc13japan/IPC-IOPC/index.html>

REPORTS FROM PAST MEETINGS

Annual meeting of the Paleobotanical Committee of Paleontology Society of China

(Shenyang Normal University, August 2-7, 2008)

The meeting was organized by the faculty of the Institute of Palaeontology of Shenyang Normal University and the Palaeontological Research Center of Jilin University. About 90 colleagues of 27 affiliations attended the meeting. Twenty-five oral presentations including all aspects of palaeobotany in China were conducted at August 3-4, many of which were later presented in the IOPC-VIII, Bonn, Germany, during August 31-September 5th, 2008.

Field trips to Benxi and Beipiao were successively carried out in August 5-6. In Benxi, participants saw the type section of Carboniferous Benxi Formation at Niumaoling, and Middle Jurassic Dabao Formation at Tianshifu, and the palaeoanthropological site in Miaohoushan. Besides, the travel by boat along the river through Shuidong Cave in an Ordovician mountain was especially impressive, where various stalactitic forms were shown as surprise to all non-experts. In Beipiao, participants realized an examination of the Sihetun section yielding the well-known Jehol Biota, where *Sinosauropteryx* was discovered for the first time. The delicate museum is particularly worth mentioning; it shows off the major bedding plane containing *Sinosauropteryx* and others in place, and with a profile of the geological section forming the rear wall of the exhibition hall.

Wang Jun, China

News of IOPC-VIII

(Bonn, Germany, August 30-September 5th, 2008)

The 8th conference of the International Organization of Paleobotany (IOPC) was held in conjunction with the 12th International Palynological Congress (IPC). The attendance figures for this meeting, nearly 800 people from 54 countries, well exceed the combined numbers from previous meetings of IOPC and IPC. The program opened with a ceremony that included a saxophone-

piano duet performed by Thomas Heck and Thomas Litt, followed by welcoming presentations by conference chair, Hans Kerp, and IOP President, Margaret Collinson and a wonderful evening dinner and reception at the Botanical Garden.

There was a great array of interesting lectures and posters, which were conveniently held in adjacent lecture halls of the beautiful and historic Main Building of the University of Bonn. The conference extended from Saturday evening to Friday noon, with a break on Tuesday for local fieldtrips (eight different choices!), workshops, and an enjoyable evening tourist cruise on the Rhein River. Plenary lectures were delivered by Jonathan Overpeck, Peter Crane, Conrad Labandiera, Edith Taylor, and Remy Petit.

The scientific program included 8 parallel sessions, 48 symposia, 536 oral presentations, and 238 posters presented over 4.5 days. In addition three pre- and post-Congress field trips took place. The quality of planning, hospitality and logistics of this meeting of both paleobotanists and palynologists in Germany were first rate. Those who have organized prior conferences will know that managing such an event is no small task.

We thank the Organizing Committee including Carole Gee, Thomas Litt, Hans Kerp, Georg Heumann, Julia Schmidt-Sinns and Norbert K hl for hosting this excellent conference, as well as organizers of field trips, and related activities cited in the Program. The abstract book of 337 pages was published as Terra Nostra; Schriften der GeoUnion Alfred-Wegener-Stiftung 2008/2.

Steve Manchester

5th Symposium on Extant and Fossil Charophytes

(Rostock, September 23-29, 2008)

The symposium was held in the hanseatic town and UNESCO world heritage city of Rostock (North Germany) under the auspices of the International Research Group on Charophytes (IRGC). All aspects of this venue were perfectly organised and I'd like to thank Prof. Hendrik Schubert and Dr.

Irmgard Blindow for all the energy they invested to make the meeting so successful. 80 participants from 25 different countries came together for this quadrennial event and could enjoy the comfortable and spacious environment at Rostock University.

35 oral presentations and 28 posters covered a wide range of topics, including Paleobotany, Ecology and Conservation, up to recent advances in molecular research of the charophytes. Interesting new fossil floras from Argentina, Brazil, China, Uruguay, and Serbia were presented. Palaeoecological aspects using Charophyte fructifications as biomarkers are being more and more developed both in Europe, China and in the Southern Hemisphere.

A very animated 2-day workshop, following the scientific sessions, gave rise to exchange of views and materials, supported by binocular examination, about Charophyte systematics and to discussion about determination criteria of these particular plants.

During the General Assembly of the IRGC, held on Sept. 25, Dr. Carles Martin-Closas (Barcelona) was elected President of the IRGC for the 4-year term until the next quadriennial meeting of the IRGC, already planned to take place in Argentina in 2012!

The pre-symposium excursion led to characteristic habitats of living Characeae in the post-glacial lakes of Northern Germany. The post-meeting fieldtrip brought 25 participants to the Island of Gotland (Sweden). Under the expert guidance of Dr. Lennart Jeppsson, we could sample the oldest known Charophytes from the Upper Silurian as well as a profusion of living Characeae.

More about Charophytes - please check the IRGC-website at: <http://irgc.uow.edu.au/>

Ingeborg Soulié-Märsche
(Past president of the IRGC)

OTHER ITEMS OF INTEREST

DNFS - German Natural History Research Collections

<http://www.dnfs.de/>

Eleven German Natural history collections have formed a consortium. Among them are the Natural History Museum Berlin, Research Institute and Museum Senckenberg, State Museum of Natural History Stuttgart, Bavarian Natural History Collections, and the Natural History State Collections Saxony which hold important palaeobotanical collections and research positions for palaeobotanists and palynologists. The natural history collections of all member institutions comprise more than 100 millions of objects. Some of the main objectives of the consortium are to

- initiate and promote joint research actions,
- develop joint actions for public understanding of research,
- develop a joint concept for the sustainability and future development of their collections as large-scale research infrastructure,
- serve as contact for politics, media, and stakeholders.

Johanna Eder-Kovar

New research topic in palaeobotany

The role of solid-state ^{13}C NMR spectra in pathways of organic-matter transformation: research in Pennsylvanian medullosalean pteridosperms

Erwin L. Zodrow¹, Ulrike Werner-Zwanziger², and Banghao Chen²

¹Department of Geology, Cape Breton University, Curator of Fossil Plants, Sydney, Nova Scotia, B1P 6I2 Canada.

²Department of Chemistry, Dalhousie University, IRM ARMRC, Halifax, Nova Scotia, B3H 4J3, Canada.

Noticed in research literature is a complete lack of ^{13}C NMR experiments with plant organs of Pennsylvanian seed ferns over a stratal range that includes the Asturian-Cantabrian boundary. Recent

mining activities in the Sydney Coalfield, Nova Scotia, Canada, made it possible to collect massive amounts of compressions over this interval with well-preserved cuticles of *Alethopteris pseudo-grandinioides* Zodrow and Cleal associated with *Trigonocarpus grandis* (Lesquereux) Cleal and Zodrow, *A. ambigua* (Lesquereux pars) Zodrow and Cleal, and *Macroneuropteris scheuchzeri* (Hoffmann) Cleal *et al.* Up to 86 mg of cuticle/species could be prepared from the compressions using Schulze's process which involved macerating a maximum of 400 pinnules, or ½ of the compressed trigonocarpalean ovule measuring 80 mm by 45 mm. Available as control group against extracted cuticles from compressed *A. ambigua* pinnules are fossilized cuticles of *A. ambigua* from the same biostratigraphic horizon. The large amount of sample made ¹³C NMR studies possible. We applied ¹³C cross-polarization Magic Angle Spinning (CP/MAS) NMR to analyze the distribution of chemical functional groups of these cuticles, other plant parts and the associated coal seams. Implications for chemotaxonomy, together with new sampling methodology, will be published in the near future.

Erwin L. Zoderow

Email: Erwin_Zoderow@cbu.ca

Scientific Excavation Chemnitz-Hilbersdorf

The 'Petrified Forest' of Chemnitz is a widely known fossil lagerstaette amongst palaeontologists around the globe. A pioneer in excavating petrified wood in Chemnitz-Hilbersdorf was David Frenzel. In 1721 he organized the excavation of an outstanding gymnosperm trunk with roots. The Petrified Forest had a remarkable effect on the research of anatomically preserved plant fossils.

The region which is now Germany was close to the equator during the Permian, and the Permian biota were very diverse. Due to volcanic activity, coupled with frequent pyroclastic eruptions, the biota were preserved in situ, offering a unique chance to reconstruct the local earth history and the whole ecosystem. In fact, for about 250 years, the Chemnitz Petrified Forest was intensively studied

and the results were published. Therefore Chemnitz provides an interesting place to shed light on the palaeobiology and living conditions of Late Palaeozoic plants. In recent years findings were restricted to new construction works.

140 years after the foundation of the Natural History Museum of Chemnitz, stimulated by the international UN year of the Planet Earth 2008 and in preparation of the UNESCO application to accept the Petrified Forest Chemnitz as "natural world heritage", an area of 500 m² has been excavated in detail.

This project - the first scientific excavation in Chemnitz-Hilbersdorf - started on April 4th this year. On this day we also celebrated the 167th birthday of Johann Traugott Sterzel, who, as the first Museum Director, initiated the famous collection of petrified wood at the museum.

In preparation for this excavation the amount of material which would have to be moved, was carefully calculated to 2000 m³! Students of the Technical University Bergakademie Freiberg, (www.tu-freiberg.de) and a lot of volunteers helped our excavation team. Numerous companies provided financial support for the project. At present most of the excavation facilities are sponsored. In the hard rock a wide variety of petrified trees was found such as large three-dimensionally branched calamitaleans, cordaitaleans with branches, and medullosan seed ferns, Psaronius tree ferns, many of them with organ remains attached.

The progress of the excavation has been intensively documented by various newspapers and television programs. The excavation was open to the public at weekends, and we counted about 3.800 visitors, including 60 scientists from 13 foreign countries. The field-trip participants of the International Organisation of Palaeobotany Conference were deeply impressed by the "treasures" at the excavation site, and the results will certainly change some well known plant reconstructions as well as the view on the Permian biota in general.

The intensive documentation, including 3D imaging of each single fossil tree trunk, has resulted in a huge amount of data.

Currently, we apply for further funding in order to continue the excavation for another year.

Looking back, we have experienced a captivating and successful year in our earth studies. We are proud to have shown our city that the Petrified Forest is very relevant today for tourists and citizens alike and we hope that visitors and scientists will show their support for our ongoing project by writing to the editor.

We thank all the sponsors and volunteers who have made this scientific excavation possible.

Ronny Rößler & Thorid Zierold, Museum für Naturkunde Chemnitz; 15.10.2008
(www.naturkunde-chemnitz.de)

JOB OPPORTUNITY

Research position (E13 TV-L) in the Department of Palaeontology at the State Museum of Natural History Stuttgart (Starting: 01-Jan-2009)

(Homepage: <http://science.naturkundemuseum-bw.de/de/palaeontologie>)

The palaeontological collections of the State Museum of Natural History Stuttgart encompass more than 4.5 million fossil organisms (with focus on the Meso- and Cenozoic era) along with minerals and rocks. Therefore, the collections rank among the three largest within Germany.

We are seeking a highly motivated, team-working scientist with a desire to participate in internal as well as external national and international projects, including interdisciplinary endeavours. The main job duties would focus either on “Triassic marine invertebrates” or “Mesozoic/Cenozoic plants”.

Duties would include

- scientific evaluation, maintenance and extension of the marine invertebrates or the palaeobotanical collection
- pursuit of high quality research (particularly on the material of the collections being curated) and publication in internationally renown journals
- public relations work: communication of research results via popular science journals,

lectures and other media; scientific design of exhibitions; responding to queries

- participation in the preservation of palaeontological monuments in the state of Baden-Württemberg
- organisation and conduction of fieldwork
- supervision of the preparation and technical labs.

Required qualifications

- graduate degree in geology/palaeontology; PhD/doctorate in palaeontology
- detailed knowledge about Mesozoic marine invertebrates or Meso- and Cenozoic plants.
- sound publication record
- experience in applying for external funding
- solid computer proficiency
- at least basic German language skills.

Desired qualifications

- experience in specific, museum-related activities (curatorial work in collections, exhibition design)
- interest in biostratigraphy, morphology, systematics, phylogeny, palaeoecology, climate change, and/or sedimentology
- ability to maintain and expand international scientific collaborations
- experience in biodiversity informatics as the museum is participating in international projects in this field.

Remuneration is at level E13 TV-L (German public service). The official language is German. Severely handicapped persons with equal qualifications will receive preferential consideration; as part of our equal job opportunity agenda we particularly welcome applications by women.

Please send your written application with the standard documents by the **30-Nov-2008** to the: Staatliches Museum für Naturkunde Stuttgart, Rosenstein 1
70191 Stuttgart
Germany

For further information please contact Dr. Ziegler (ph +49 711/8936-141) or our museum director Prof. Dr. Eder (ph +49 711/8936-112).

BOOK REVIEW

Anderson, H. M. and Anderson, J. M. 2008.

Molteno Ferns: Late Triassic biodiversity in southern Africa. *Strelitzia*: 21. 259 pp.

This is the fourth in a series of monographs that the authors have published on what is proving to be a surprisingly large flora in the Late Triassic Molteno Formation in South Africa. In contrast to the earlier volumes the order of authorship is reversed with Heidi Anderson taking the position of senior author. Otherwise, it generally follows the format used in the earlier volumes and like the more recent monographs in the series, this one is also paper bound which means that after much use, it too will undoubtedly have to be rebound. The cover has an attractive montage of colour drawings of some of the species described in the book. The volume is well printed on coated A4 size paper and contains some 100 black and white plates of the sterile remains, 52 coloured plates of the fertile fossils, numerous line drawings, several tables and distribution maps. It does not contain as much front matter as previous volumes but we do learn a little more about the authors and their personal life and background from what there is.

The amount of data on the fossils is limited because the fossils are only represented by impressions as is typical of the fossils in the Molteno flora. However, the matrix is so fine grained that the venation and outlines of the fossils are generally clearly visible in the plates. In addition, some of the cellular structure of the sporangia is even visible although the spores are not preserved. Comparisons will be facilitated by the presence of many illustrations of nearly every species described in the volume. For example, there are 18 photographs of *Cladophlebis moltenensis* on four plates. Thus, study of the range of variations in the species will clearly be greatly facilitated by this abundance of illustrations. On the other hand, comparisons will be hampered by the brief descriptions given of the taxa and the absence of figure explanations.

Prior to the work of the Andersons less was known about the Molteno ferns than of any of the other plant groups in the formation. Thus, it is not

surprising to find that 27 of the 37 species and 11 of the 16 genera considered in the book are new. These findings demonstrate that the distinctive nature of the Gondwana Triassic flora extends to the ferns. In contrast to earlier volumes the authors follow a conventional classification scheme and assign most of the Molteno ferns to the Marattiaaceae, the Osmundaceae, and the Dipteridaceae. In addition, three species are tentatively assigned to the Polypodiales.

This volume is a welcome addition to the palaeobotanical literature of both southern Africa and the rest of Gondwana as well, because the ferns are so poorly known there. In fact the only other comprehensive treatment of the Triassic ferns of the southern lands has been published in a series of shorter contributions on the Nymboida flora of New South Wales, Australia by Heidi's husband, Keith Holmes. Elsewhere in the region their descriptions are scattered in shorter papers published throughout the world, particularly in South America. Fortunately, the present authors include a table listing all of the fossil Triassic ferns described from Gondwana in the past which will greatly facilitate the research of future workers who desire to learn about the world wide distribution of the ferns during the Triassic.

It certainly should be on the shelf of university libraries and on the desk of most palaeobotanists. With a sale price of only about \$35.00 plus postage this book is a real bargain. It is published by the South African National Biodiversity Institute in Pretoria and can be ordered online from their bookshop at <http://www.sanbi.org/index.html>

OBITUARY

Professor Baolin Tian



Prof. Baolin Tian, paleobotanist and geologist of China University of Mining and Technology (CUMT) at Beijing passed away at 12:30 pm, on Jan 9, 2008, at age 79, in Beijing, China. He was diagnosed with cancer in 1986, but continued teaching, conducting research, and supervising graduate students till he retired in 1992. After that, he participated in research and served on a number of study committees for graduate students, till 2007.

Prof. Tian was born in the western rural area of Beijing. He graduated from Beijing University with a Bachelors degree in geology in 1952, and then he taught at Fuxin Coal Mining College (1952-1956). Since 1956, he began to teach at Beijing Coal Mining College that was now renamed as China University of Mining and Technology, where he served as the Chair of the Coal Geology Department between 1980 and 1990.

Professionally, Prof. Tian had served as an executive committee member for several societies, including the Paleobotanical Society of China, Paleontology Society of China, and Coal-Science Society of China. One of his major achievements is his discovery of coal balls in China in the 1970s. When Beijing Coal Mining College was moved to Sichuan (then called Sichuan Coal Mining College) between 1970-1978 because of the Cultural Revolution, Prof. Tian was

sent to Wangjiazhai Coal Mine, western Guizhou Province (south of Sichuan Province) to work with coal miners in tunnels, as a routine practice of the Cultural Revolution. The coalfields in that area yield coal seams of the Upper Permian, including the uppermost Permian coal seam just beneath the conformational Permian/Triassic boundary layer. Some stone clusters (up to tens of meters in diameter) were found embedded in some coal seams, like tigers in pathways so they were called "Tiger Stones" by coal mining workers. In order to understand their nature, Prof. Tian examined those stones closely and surprisingly found fossil plants inside! That was how he discovered coal balls in China and in Southeast Asia for the first time!

Later, he also found coal balls in several mines in that area and even in the Carboniferous coal mines in Taiyuan, Shanxi Province, as well as in some sites in Shandong Province. His early studies were very difficult because there were neither a laboratory nor reference material available to him. He set up a very simple laboratory at the Wangjiazhai coal mine site with a diamond saw and simple darkroom, and visited many libraries and institutes to search for old references in foreign languages. This was necessary because China had been isolated from the West since 1949, and thereafter there had been almost no new foreign literature available to him. It was under that extreme situation that Prof. Tian successfully dissected coal balls and identified a number of taxa of fossil plants, such as *Lepidodendron*, *Sigillaria*, *Psaronius*, etc.

When he reported his discoveries at the Ninth International Congress of Carboniferous Stratigraphy and Geology, in 1979, his study immediately attracted a lot of international attention because coal balls and other anatomically preserved fossil plants had been found in three other Paleozoic floras and paleobotanists have been waiting for the discovery of anatomically preserved fossil material from the Cathaysian flora to compare with their studies. Professor Tian presented the first descriptions of coal ball plants from China in his book, "*Fossil atlas of Wangjiazhai Mine Region*", which was published in 1980.

Another major contribution by Prof. Tian was his successful promotion of modern paleobotanical studies by Chinese workers. In 1982 Prof. Tian organized a special training workshop at CUMT and invited Dr. Thomas L. Phillips to teach dozens of Chinese professors and graduate students, as well as laboratory technicians, about how to study coal balls. That training really led to the reinvigoration of anatomical studies of fossil plants in China.

Professor Tian personally supervised 4 Ph.D. graduate students in paleobotany and coal geology (including Shijun Wang and Yingting Guo) and 11 masters degree students in paleobotany, and some of them later pursued Ph.D. degrees in paleobotany in other countries (e.g., Zhifeng Gao, Qiangsheng Huang, and Hongqi Li). Professor Tian also trained five masters degree students in hydrogeological engineering. Most his former students have become professionals and/or governmental officers in China. When I began my paleobotanical studies with Professor Tian in 1992, we had a very strong paleobotany program, including Prof. Tian, Prof. Meitang Mei, Yingting Guo, and myself. Professor Tian guided the studies and gave valuable advice to his students, both academically and personally. All of his students regarded Professor Tian not just as a teacher, but also a guardian and friend. His enthusiasm in teaching, his dedication in research, and his guidance nourished all of us to mature professionalism.

Since 1980, Prof. Tian had published/coauthored four books and more than 40 papers in paleobotany. He won an Award of Scientific Achievement for the project titled "*Systematic study on some Cathaysian plant groups*" from the State Education Committee of China, in 1995. His research was also internationally recognized and attracted many paleobotanists from many countries to visit him. I still remember that I helped him to arrange visiting activities for Thomas Taylor, Edith Taylor, Tatsuaki Kimura, Andrew Scott, just to name a few, when I was a faculty member at CUMT Beijing before 1990. Certainly, Prof. Tian left many long memories to many paleobotanists in the world.

Prof. Tian's funeral was held on Sunday, Jan 13, 2008, followed with the cremation in Babaoshan, Beijing, and his ashes were buried together with those of his wife Xu, who passed away from cancer in 2005. Prof. Tian is survived by two daughters and two sons.

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CHANGES OF ADDRESS

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