International Organisation —— of Palaeobotany ——



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Letter from the president

Hello colleagues.

We continue to update the IOP website, palaeobotany.org, with announcements and information on upcoming events, and rely on this site for providing general information on our activities and handling online membership joining and renewal. Relevant upcoming conferences and workshops are presented on the home page, and links are provided to other paleobotanical sites on the web as we become aware of them. We are still seeking a genuine webmaster for IOP; meanwhile we try to keep the information updated to the best of our abilities. Let me know if you would like your own website or blog featured on the page of links: http://palaeobotany.org/page/links/

The IOP facebook page has been updated frequently in recent months. We thank Nareerat Boonchai and all those who have participated to keep the site active: https://www.facebook.com/International-Organisation-of-Palaeobotany-543548202500847/

In our effort to increase membership internationally, we ask your help in recommending IOP to students and colleagues. Those who are members can take advantage of reduced registration rates for our conferences. We are also organizing exclusive deals for IOP members publishing in journals of our discipline. For example, the paleontological journal, Fossil Imprint, provides free open access, and will provide 50 free printed copies of the journal issue in which your article appears, at only the cost of shipping (if you are an IOP member). See <u>http://palaeobotany.org/page/journals</u>

The IBC conference held in Shenzhen, China, this summer was an enjoyable event attended by more than 70 paleobotanists; you can read more about it in this issue. Thanks very much to IOP congress representative, Xiaoyan Liu, for welcoming so many international colleagues and organizing the Paleobotanical Banquet. Looking forward, two large regional paleobotanical conferences are scheduled in 2018: the 17th Argentine Symposium of Paleobotany and Palynology (SAPP 2018), Towards new challenges, in Paraná, Entre Ríos Province, Argentina, July 30-August 5, 2018, followed by, followed by the 10th European Palaeobotany and Palynology Conference, Dublin, Ireland, August 12-17, 2018. Please see details in this newsletter and in the links provided our homepage, Palaeobotany.org

With best regards, Steve Manchester (Gainesville, FL, USA)

Award Announcements

The Latin American Association of Paleobotany and Palynology (ALPP) and the International Organisation of Palaeobotany (IOP) Awards

Within the XVIIth Argentine Symposium of Paleobotany and Palynology, Paraná, July 30 – August 5 2018 (see p. 27 of this newsletter) the Latin American Association of Paleobotany and Palynology and the International Organisation of Palaeobotany announce four and three awards respectively for PhD students and young postdocs (up to 5 years after defending their doctorate), who present their work in the fields of palaeobotany and palynology as a scientific talk during the conference. To qualify for this award, the applicant has to be first author and presenter, and must be a current member of ALPP and / or IOP when they register for the meeting, or become a member during onsite registration.

The members of the Directive Committee will select the jury that will evaluate the presentations during the event. Winners will receive their prizes at the ALPP Assembly at the end of the event, which consists of a certificate and 100 USD.

For inquiries about the awards or the means to partner with ALPP and IOP please contact Dr. Mercedes Di Pasquo (medipa@cicyttp.org.ar), or visit the organization's webpages.

ALPP - http://alpaleobotanicapalinologia.blogspot.com.ar

IOP- http://palaeobotany.org/page/forthcoming-meetings

John H. Hoskins Grants-in-Aid Program for Paleobotanical Research

The Paleobotany and Paleoecology Department at the Cleveland Museum of Natural History, USA, is pleased to announce a Grants-in-Aid program for research to be conducted on the paleobotany collection. Details on our facilities are provided at https://www.cmnh.org/paleobotany-paleoecology Each year, up to 4 awards of up to \$1000 each will be granted to visiting researchers who wish to visit our collections. Funds may be used for transportation and housing expenses. Priority will be given to graduate students or early career scientists (within 5 years of their Ph.D.) and international scholars without ready access to research funds.

To apply, please submit:

(1) research application (available at <u>https://www.cmnh.org/paleobotany-paleoe.../collection-database</u>)

(2) 1-page description of proposed research

(2) budget

(3) letter of support from faculty advisor if a graduate student

Deadline for proposal: December 30, 2017

Notification by: January 31, 2018

Applications may be considered for funding beyond the deadline under certain circumstances. Please contact Elizabeth Reinthal, Collections Manager, before submitting an application after the deadline.

Submit applications to: Elizabeth Reinthal, Collections Manager E-mail: ereinthal@cmnh.org (Proposals will only be accepted by email)

Meeting reports

XIXth International Botanical Congress, Shenzhen, China (July 23-29, 2017)

IOP Social Dinner

IOP Executive Committee was happy to welcome about 65 paleobotanists and palynologists to the IOP Social Dinner during the International Botanical Congress in Shenzhen, China, held on 25 July 2017 at the Foo Restaurant, Four Seasons Hotel Shenzhen. The informal associated meeting was excellently organised by Dr. Xiaoyan Liu and Han Meng - many, many thanks to both! We are happy to announce that during on-site registration for the dinner some participants decided to join IOP and became member of our organization. Steve Manchester, IOP President, gave a brief welcome speech.



Some snapshots from the social dinner (unfortunately there was no convenient place for a group photo) were provided by several colleagues (many thanks for that):











My first IBC: personal experiences

In late July 2017, I attended the XIX International Botanical Congress (IBC 2017), which was held in Shenzhen, China. Over 6000 scientists from across the globe attended this event. The International Botanical Congress is held every six years in different locations all over the world. The scientific program of the XIX IBC covered almost all fields of plant sciences, including plant taxonomy and evolution, ecology, genetics and physiology, molecular biology, agriculture, paleobotany, and related fields. The congress was comprised of public lectures, plenary lectures, keynote lectures, general symposia (both oral and poster sessions), society and association meetings, discussions, and workshops. With many sessions taking place in parallel, each of us brought something very different back from the conference.



Entrance of the Shenzhen Convention & Exhibition Center

I presented on July 29th during one of the Paleobotany sessions. This session was organized by Dr. Steven R. Manchester from University of Florida and Dr. Xiaoyan Liu from Sun Yat-sen University. I really appreciated the opportunity to give an oral presentation at such a grand conference. My talk focused on the fossil fruits of *Canarium* (Burseraceae) from South China. These specimens are three-dimensionally preserved, so we used CT scanning technology to observe the morphological and anatomical characters. The topic of our session was the "Ecological and biogeographic implications of Asian Oligocene and Neogene fossil floras." So, other colleagues invited to speak during this session also discussed something related to this topic. The other topics and presenters at this session were: *Cenozoic plant diversity of Yunnan: A review* (by **Yong-Jiang Huang**), *Cenozoic floras in the Qinghai-Tibetan Plateau: were they isolated?* (Tao Sou), *Oligocene and Neogene vegetation change in Siberia and the northeast of Russia reconstructed from palaeocarpological data* (Svetlana Popova), *Oligocene-Miocene floral changes in the circum-Japan Sea areas—climate changes and floristic separation* (Atsushi Yabe), *Elaeocarpus L. (Elaeocarpaceae J.) fossil fruits from Oligocene-Miocene of Guangxi, South China* (Xiaoyan Liu).

Although our session was on the last day of the congress, there were still many people in attendance, which made me happy. Every speaker did very well, and I absorbed a lot new information from their presentations. This symposium provided us a chance to gather the latest fossil record and paleoenvironmental data and to discuss their ecological and biogeographic implications in order to better understand the mechanisms of biogeographic change.

Below is a photo of the speakers and part of the audiences at our session:

I also attended the International Organization of Paleobotany (IOP) Social Dinner on the 25th July. Over 60 Paleobotanists attended this dinner. It was really a good setting for us to share our thoughts on the lectures and exhibitions, as well as an opportunity to have many interesting conversations. It was a nice, informal way for us to learn from each other. We were also able to promote the IOP society, so now more people know about the organization and want to join, which is exciting.

During and after the conference, the organizing committee arranged optional tours and field trips for attendees. Each of the trips had a knowledgeable guide who was familiar with that particular field site. I think it was an excellent opportunity for those who have not visited China to see and experience the outstanding technology, art, and rich vegetative diversity that China has to offer.

In summary, the XIX International Botanical Congress was a unique opportunity for us to meet with colleagues from around the world to discuss important issues, share new research findings and ideas, establish international collaborations, make new friendships, and renew old ones. I am very proud that this congress was held at my home country in China!

My travel to Shenzhen and participation in IBC 2017 was supported by the IBC and Journal of Systematic and Evolution. Many thanks to them for making this wonderful experience possible.

Han Meng, IOP Student Representative, Sun Yat-Sen University, Guangzhou, China

5th International Conference of Agora Paleobotanica, Montpellier (France), July 10-12, 2017.

The 5th meeting of the organization Agora Paleobotanica was held this year in the French city of Montpellier. The meeting gathered 28 participants coming from 5 different countries: Belgium, France, Germany, Italy, and Spain. The meeting started in the morning of July 10th with a keynote by Ronny Röβler (Chemnitz) on the history and recent results of excavations in the *in situ* Permian forest of Chemnitz. The following afternoon and the next day were devoted to presentations in all areas of paleobotany, ranging in age from the Silurian to the present.

The conference dinner was held at the restaurant le Petit Jardin, in the old city center of Montpellier. The "Prix Boureau", which recognizes the best talk given by a student or postdoc member of Agora Paleobotanica, was awarded to two equally deserving students: Aixa Tosal (Barcelona) for her talk on the significance of small order climatic cycles in the understanding of Eocene-Oligocene leaf floras, and Agathe Toumoulin (Montpellier) for her methodological and palaeoecological study of fragmented leaves from the Eocene of Germany.

The third day of the meeting was dedicated to a field trip in the Permian basin of Lodève, about 50 km northwest of Montpellier. It is one of the best exposed Permian sections in Europe and is the object of continuous geological, paleontological, paleoclimatic and paleoecological investigations. Its continental infilling consists of fluvial and lacustrine grey sediments, and red beds. Participants visited several spots where fossil plants have been found, including the historical Tuilières locality studied by Dufrenoy and de Beaumont (1848), Grand'Eury (1877), Zeiller (1898), Carpentier (1931, 1937), Florin, (1938-1945), Doubinger, (1956), and more recently by Broutin et al. (1992) and by Galtier (unpublished). The Tuilières macroflora contains 46 species, some corresponding to Carboniferous taxa that persisted in the early Permian. The warm day was interrupted by a lunch (and for some a quick swim) at the Salagou lake, an artificial lake surrounded by impressive "ruffes", the local name for the Permian red beds.

Agora Paleobotanica is an association founded in 2010 that brings together European researchers and amateurs interested in paleobotany and palynology. More information is available on the website: <u>https://agorapaleobotanica.wordpress.com</u>



Group photo in the Lodève Basin with Permian red beds in the background (photo S. Fouché)



At the Tuilières historical locality (photo A.-L. Decombeix)



Fossil conifer in grey Asselian sediments at the Tuilières historical locality (photo G. Scanu)



A nice spot for a lunch break: red Permian deposits around the Salagou lake (photo G. Scanu)

Celebrating Zlatko Kvaček's 80th birthday

About 35 colleagues and friends of Zlatko Kvaček from 9 countries met in Prague (Czech republic) for a one-day scientific meeting to celebrate his 80th birthday. The meeting was excellently organized by Jiřina Dašková and Jiři Kvaček from the Natural History Museum of the National Museum Prague together with many other helping hands both from the museum and the university. It was hosted by the Institute of Geology and Paleontology of the Charles University in Prague. After the scientific part Zlatko invited all guest to a party in the exhibition rooms of the institute. On behalf of the journal *FOSSIL IMPRINT* (formerly Acta Musei Nationalis Pragae, Series B – Historia Naturalis), Jiři Kvaček invited participants to contribute with scientific articles to a celebration volume of *FOSSIL IMPRINT*. Deadline for submission will be end of November 2017. This volume is also open for those who could not attend the Prague meeting but would like to submit a manuscript. Please visit the webpage for further information (<u>http://fi.nm.cz/en/</u>).



Zlatko Kvaček showing a gift (photo: Edoardo Martinetto, Turino)

ZLATKO KVAČEK - ON THE OCCASION OF HIS 80TH YEAR

Day Address	Friday, September 15, 2017 Charles University, institute of Geology and Paleontology, Albertov 6, 128 43 Praha 2; room: Velká Paleontologická (ground floor, left)		
8:50 - 9:00	Opening	Jiří Žák (Head of the Institute of Geology and Paleontology)	
9:00 - 9:15	Laudatio	Johanna Kovar Eder Lilla Hably Steven Manchester	
9:15 - 9:30	Jakub Sakala What is new Prague	Jakub Sakala, Vasilis Teodoridis What is new in Zlatko's research or 10 years after 70th anniversary party in National Museum in Prague	
9:30 - 9:45	David K. Ferg Forty years o	David K. Ferguson Forty years of friendship	
9:45 - 10:05	Lutz Kunzma The 'classical	Lutz Kunzmann, Karolin Moraweck, Dorothea Bräutigam & Christian Müller The 'classical' late Eocene Profen locality (central Germany): fossil plants and beyond	
10:05 - 10:25	Margaret Co X-ray investig	Margaret Collinson X-ray investigations of Eocene fruits and seeds from the London Clay Formation	
10:25 - 10:45	Johanna Kov Poorly presev of MN 7)	Johanna Kovar Eder Poorly preseved but relevant - Revision of the Steinheim flora (Germany, Miocene, reference locality of MN 7)	
10:45 - 11:05	Edoardo Mar Whole-plant	Edoardo Martinetto Whole-plant reconstructions in the Neogene of Italy	
11:05 - 11:15	Jiří Kvaček "Fossil Imprir	Jiří Kvaček "Fossil Imprint"	
11:15 - 12:45	Lunch (we wi	Lunch (we will recommend restaurants nearby)	
13:00 - 13:20	Lina B. Golov New findings	Lina B. Golovneva New findings of middle Albian angiosperms in Far East of Russia	
13:20 - 13:40	Peter Crane The Early Cre	Peter Crane The Early Cretaceous flora of Mongolia	
13:40 - 14:00	Hans-Joachir The lower rhe Garzweiler a	Hans-Joachim Gregor & U. Lieven The lower rhenanian browncoal deposits and their famous fossil floras - open cast mines Hambach, Garzweiler and Inden (RWE Power AG) – a never ending story.	
14:00 - 14:20	Else Marie Fi Early Cretace	Else Marie Friis, Peter Crane & Kaj Pedersen Early Cretaceous seeds: extinct diversity close to ANA-grade angiosperms	
14:20 - 14:40	Steven Mano Well preserve North Americ	Steven Manchester Well preserved leaves and fruits of Trochodendraceae from the Paleocene to Miocene of western North America.	
15:00	Zlatko' s Part (at the same	Zlatko' s Party (at the same place)	



Group photo of the participants at the entrance of the institute (photo: anonymous)



NECLIME Annual Meeting 2017, Yerevan, Armenia

The 18th Annual Meeting of the NECLIME (Neogene Climate Evolution in Eurasia) Consortium was held in Yerevan, Armenia, at the Botanical Institute of the National Academy of Sciences, from September 18 to 24, 2017. Thanks to the dedication of our hosts, Ivan Gabrielyan and Astghik Papikyan, the perfectly organized meeting was a great success. On a three-day post-conference field trip, the outstanding natural and cultural heritage of Armenia was introduced to the participants.



Group photo of the participants at the entrance of the institute (photo: anonymous)

28 colleagues from 12 countries joined the conference which included two key note lectures (Anush Nersesyan: Vegetation of Armenia; Ivan Gabrielyan: Palaeobotany of Armenia), 15 oral and 10 poster contributions. The contributions were arranged in the following topical sessions: (1) The environmental history of the Caucasus – flora, fauna, vegetation and climate, (2) Plant biodiversity in time and space, (3) Climate data from non-plant proxies: vertebrates, insects and geochemical proxies, (4) Early human environment, and (5) Neogene climate evolution in Eurasia (as a general topic of NECLIME).

In the context of the NECLIME conference, a three-day workshop was organized by ROCEEH (The Role of Culture in Early Expansions of Humans, Heidelberg Academy of Sciences and Humanities) that introduced young scientists from Georgia and Armenia into quantitative techniques of palaeoenvironmental reconstructions developed in NECLIME.

Torsten Utescher, Bonn, NECLIME coordinator

Martin Luther (1483-1546): Profit of prehistory or pioneer of palaeobotanical predictions?

Mrs. Malaprop: "Well,..., we will not anticipate the past." The Rivals; RB Sheridan (1775).

"In effect, we have redefined the task of science to be the discovery of laws that will enable us to predict events up to the limits set by the uncertainty principle." *A Brief History of Time;* Stephen Hawking (1988).

It is said that on the evening of October 31 1517, the priest Martin Luther tacked his 95 theses onto the door of the Schlosskirche at Wittenberg in northern Germany; a benchmark event in the

protestant reformation of western christianity some 500 years ago (van Doren 1991). What is more certain, however, is Luther's very early contribution to the predictive aspect of palaeobotanical science when he published his commentary on the biblical Book of Genesis *In primum librum Mose enerratones* in 1544. The following paragraphs on the Noahcian Flood (*"Deluge"*), after a 1904 translation of Luther's commentary by Prof. JN Lenker of Minneapolis, have some bearing on fossilized plants:-

"Who can doubt, therefore, that the fountains of these rivers were also broken up and confounded? As, therefore, since the Flood, mountains exist where fields and fruitful plains before flourished, so there can be no doubt that fountains and sources of rivers are now found where none existed before and where the state of nature had been quite the contrary. For the whole face of nature was changed by that mighty convulsion. Nor do I entertain the least doubt that all those wonders of nature which are from time to time discovered, are the effects of that same awful visitation, the Deluge. In the metallic mines which are now explored are found large logs of wood, hardened into stone; and in masses of stone themselves are perceived various forms of fishes and other animals. With the same confidence I also believe that the Mediterranean Sea before the Deluge was not within the land. My persuasion is the position which it now occupies was formed by the effects of the terrible Flood. So also the space occupied by the Red Sea was doubtless a fruitful field, and most probably some portion of this very garden. In like manner, those other large bays, the Gulf of Persia, the Gulf of Arabia, etc., as they now exist, are relic effects of the Deluge.

Wherefore we are by no means to suppose that the original source of the rivers, of which we are now speaking, was the same as it is today. But as the Earth still exists and brings forth trees and their fruits, etc., and yet these, if compared with those in their original and incorrupt state, are but miserable remnants as it were of those former riches, which the Earth produced when first created, so these rivers remain as relics only of those former noble streams; but certainly not in their primitive position; much less flowing from their original sources. In the same manner, how much the excellency has perished from our bodies by sin! Wherefore the sum of the matter under discussion is that we must speak of the whole nature since its corruption, as an entirely altered face of things; a face which nature has assumed, first by means of sin, and secondly by the awful effects of the universal Deluge."

I am not the first to have drawn attention to these remarks by Luther. In reviewing what he called "The foundations of palaeophytology", Harvey-Gibson (1919) remarked:

"When fossils began to be collected and studied in the end of the sixteenth and early years of the seventeenth centuries they were looked upon as the remnants of vegetable and animal life that had existed on the earth previous to the Noachian Deluge, and it is somewhat amusing to read Luther's commentary on Genesis the view expressed that indications of the Deluge would be found in the form of petrified wood near mines and other centres of early man's activities!"

It is unfortunate that Harvey-Gibson suggested that the collection and study of fossils had not already begun before about 1550. Had he read Stopes (1914) he would perhaps have known of the collection of *Cycadeoidea etrusca* Capellini & Solms in Italy *ca.* 500 BC; likewise of the studies of Renaissance polymath Leonardo da Vinci (1452-1519) who helped to establish palaeontological principles.



Martin Luther as Junker Jörg; Lucas Cranach the Elder, 1521/1522, Museum of Fine Arts, Leipzig, Germany.

Building upon a temporary exhibition about "The early history of palaeontology" of 1931 in the Geology Dept. of the British Museum (Natural History), London, Edwards (1967) also quoted (without giving his source of translation) from Luther's commentary:

"And I do not doubt that we have an indication of the Flood in the wood hardened absolutely into stone, which one often finds in places where there are mines."

Whilst it would be an exaggeration to compare these quotations from Luther with precise predictions such as forthcoming dates of eclipses or times of sunrise, his words might bear better comparison with many present-day weather forecasts. Luther was clearly considering the changes in geography, floral composition and distribution, plus the alteration of plant bodies after burial in sediments that were likely if one assumes a worldwide flood occurred as described in Genesis. These are certainly topics which still occupy much palaeobotanical thought in the twenty-first century. Harvey-Gibson's remark that Luther suggested petrified (*sensu lato*) wood might be discovered near mines etc shows his commentary on the biblical flood to have been one of the earliest predictions in the science of fossil botany. It took little over fifty years for the English barber-surgeon John Gerard (1545-1612) to report on the veracity of Luther's foresight when he described and illustrated a woody tree stump standing in water that he called *Ligna Lapidea* in his "The Herball, or general histoire of plantes" (1597) :

"Among the wonders of England this is one of great admiration, and contrary unto man's reason and capacitie, that there should be a kinde of Wood alterable into the hardnesse of a stone called Stonie Wood, or rather a kinde of water, which hardened Wood and other things into the nature and matter of stones."

Within a century of Luther's commentary too, Francesco Stelluti (1577-1646) published his "Trattato del Legno Fossile Minerale" (1637). Edwards (1967) called this "... probably the earliest separate treatise on fossil plants"; Scott(2001) remarked that Stelluti's treatise, following on from the research of Federico Cesi(1585-1630), was the first to link data from specimens of fossil wood with fieldwork observations to account for the origin of these fossils.

Contrary to the remark of Sheridan's Mrs Malaprop (above), palaeobotanical predictions have become more frequent since 1544.Gordon (1935) presented a very wide-ranging account of fossil botany in human culture from Palaeolithic times to the early twentieth century; he foresaw progress in dendrochronology as a means of mapping out what he termed "*climatic rhythm*" in the Quaternary. Andrews (1980) is also an excellent source for tracing the history of our subject; whilst philosophical at times, he made few comments on where fossil botany might be going next. Stopes (1914) however, after reviewing palaeobotany from Etruscan times to the dawn of the First World War, went on to consider the worldwide future for our subject. Having pronounced that, in her view, "*Palaeobotany is an intricate and independent science.*", she then listed the following *desiderata* for fossil botanists after 1914:

1: That fossil botany be recognized in each "*civilised*" country by the provision of "*adequate*" accommodation for at least one palaeobotanical institution.

2: That such institutions act as centralizing bureaux, linking the botanical, geological and applied aspects of the subject.

3: That type specimens and stratigraphically important "zoned collections of all ages" be housed at the institutions.

4: That herbaria and *"immense series of sections of modern plants"* be available there for comparison with fossils.

5: That all literature relating to palaeobotany be available there, analysed and indexed on card catalogues.

6: That a cosmopolitan card catalogue be drawn up to list all the published names given to fossil plants since 1753 to reduce synonymy and homonymy.

7: That such institutions house collections from as wide a geographical area as possible.

8: That there be sufficient endowment to house and equip these institutions.

Whilst it is straightforward to judge Luther's prediction that pre-Deluge wood might be found petrified near mines etc, it is harder to apply the assessment of posterity to these great expectations by Stopes. In brief, our Secretary, Lutz Kunzmann, states that 333 citizens of 33 countries over 6 continents have paid to be members of the International Organization of Palaeobotany; naturally that includes retired individuals and other amateur friends of our subject-and not all professionals in

the field will have paid up either. Not all establishments are as specially palaeobotanical as, for instance, the Birbal Sahni Institute in Lucknow, India, but most countries have museums and/or universities where researchers/curators are engaged in studying, preserving and often collecting fossil plants, including many type and figured specimens that collectively represent most fossiliferous strata from all continents. Andrews (1980) refers to the Generic Index that has from 1955 with periodic updates to the present day helped us to keep up with names of fossil plant genera published since 1820 (the agreed starting date for their publication having moved on from Linnaeus as Stopes proposed.) These indices, along with more regional, periodic reports and bibliographies of recently published papers and books on palaeobotany and palynology, have done a great deal to help us keep up with current research. Stopes did not mention the value of national and international conferences; nor could she have foreseen how remarkably the advent of the worldwide web has immeasurably improved the quantity of palaeobotanical data for most of us, along with its rapid retrieval and analysis. Collections of extant floras often permit access to herbarium sheets that allow comparisons with fossil plant; however, this situation is better for adpression workers than for anatomists, as Stopes hopes for access to serial sections seem about as remote now as in 1914. As for funding, Stopes bemoaned the loss in the UK ("England ") in 1848 of the role of Botanist to the Geological Survey of Gt.Britain following the retirement of Dr JD Hooker from that post. Even during the First World War, when UK coal-production was at its peak to meet high demands for it by her armed forces and industries, that special palaeobotanical post was not reinstated. Now, when the reign of "King Coal" is largely ended and "peak oil" is past too, how much harder it has become to justify the funding of purely palaeobotanical jobs, be they in applied or theoretical aspects of our subject.

Harris (1961) looked forward fifty years in the limited field of study focusing on the Jurassic flora of Yorkshire, England, in the hope that 1961-2011 would witness a quicker progress in that area than had 1911-61. Certainly, his five volumes published (along with Millington and Miller) down to 1979 were outstanding contributions not only to knowledge of that county and period but also to Mesozoic palaeobotany across much more of the world. His predictions that applying more "powerful methods" (*eg* use of SEM) and more "vigorous collecting" (eg multiple specimens sampled from sediment logically-specified horizons) would result in more "spectacular advance" have proved true. However, I am not yet aware of any young palaeobotanist having abseiled over the cliffs south of Whitby in order to dynamite parts of the Aalenian strata there.

After reviewing the progress of palaeontology more broadly for 1980-90, Hoffman (1990), in accord with Hawking (quoted above), bemoaned its lack of new biological laws "or even inductive generalizations". He went on to predict:

"... a more humble focus on reconstruction of the history of life, rather than on attempts to discover the laws of this history; but I also envisage a considerable expansion of the scope of palaeontology to include all aspects of the history of life on Earth, rather than solely the history of particular lineages ,clades or communities. To this end, however, we must always be explicit about the biological entities we undertake to describe and reconstruct-whether we talk of genotypes, phenotypes, or single traits, lineages, whether of taphocoenoses, ecological communities or taxocoenoses-and we must also be explicit about the limitations of our biological interpretations. Otherwise, palaeontology will inevitably fall back to the level of mere story-telling." Just as the only certainties in human life are death and changes in general, we palaeobotanists must surely be certain that the fossil record will always be frustratingly incomplete. However, trying to tread in the steps of Luther, whilst bearing in mind the comments of Hoffman, may I suggest the following as a selection of aims, *desiderata* and/or predictions for the future of fossil botany:-

1) To search for unicellular ancestors of brown algae (Phaeophcophyta) in Precambrian sediments.

2) To seek out late Ordovician land plants that produced spores and/or cuticles of that age.

3) To find the reproductive organs of *Prototaxites*.

4) To discover the gametophyte/s of *Asteroxylon* in the Rhynie Chert.

5) To link *sporae dispersae* with spores/pollen in their parent plants.

6) To search for new fossil specimens to define the geographic bounds of the Notal flora of the early Jurassic.

7) To seek out specimens showing organic connexion between frequently and consistently associated organs.

8) To aim to recognize pre-Cretaceous angiosperms.

9) To test predictions from seemingly-contradictory molecular clock evidence, eg for the Mid-Cretaceous/Upper Carboniferous divergence of monocots from dicots or for the Eocene origin of heterostyly in flowers of Primulaceae.

10)To record our discoveries and ideas on fossil plants in ways that will prove as lasting and retrievable as those published in the time of Luther, if not earlier.

Readers, you will surely add to that list yourselves!

Acknowledgments: My thanks go to Dr Helen Carron, Librarian of Emmanuel College, Cambridge, for her help in locating a translation of Luther's Latin text; also to Mr Timothy Cross of Gwent, Wales, for help with philosophical points.

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H.L. Pearson, UK (Hugh.pearson@ edf-energy.co.uk)

Short communications PhD theses successfully defended

Jian Huang (Xishuangbanna Tropical Botanical Garden, CAS, Paleoecology Group):

" The Middle Miocene Wenshan flora, Yunnan, southwestern China, and its palaeoenvironmental reconstruction"

Supervisors/reviewers: Prof. Dr. Zhe-Kun Zhou (XTBG), Prof. Dr. Steven R. Manchester (Gainsville, USA), Ass.-Prof. Dr. Tao Su (XTBG)



Huang Jiang (center) with the defense committee and the paleoecology group members (photo: XTBG)

Karolin Moraweck (Technical University Dresden, Germany, Institute of Botany & Senckenberg Natural History Collections Dresden):

"Potential and significance of leaf trait changes of long-lived species during the Paleogene" Supervisors/reviewers: Prof. Dr. Christoph Neinhuis (TU Dresden), Dr. Lutz Kunzmann (Senckenberg, Dresden), Ass.-Prof. Dr. Tao Su (XTBG, Chinese Academy of Science)

Eva-Maria Sadowski (Georg August University Göttingen, Germany, Department Geobiology): "Towards a new picture of the 'Baltic amber forest' – flora, habitat types, and palaeoecology" Supervisors/reviewers: Prof. Dr. Alexander Schmidt (Göttingen), Dr. Lutz Kunzmann (Senckenberg, Dresden), Dr. Leyla J. Seyfullah (Göttingen), Prof. Dr. David Grimaldi (American Museum of Natural History)

Celebrations

Dr. Johan van der Burgh (Utrecht), well-known paleo-xylotomist and paleoecologist, celebrated his 80th birthday in September 2017.

Upcoming meetings

26th International Workshop on Plant Taphonomy, Göttingen, November 24th to 26th, 2017

- Second Circular -

To be held at the Geoscience Centre, University of Göttingen, Germany.

This will be an open meeting with talks, posters and round table discussions on plant taphonomy, and the maintenance and availability of palaeobotanical collections and issues such as deterioration and preservation. Students are particularly welcome to join in and can attend for free. We will also be opening up our museum and amber collection to attendees and offering a field trip to Willerhausen.

Registration and abstract submission:

Registration is by email to Leyla Seyfullah, by **30 August 2017**: <u>lseyful@uni-goettingen.de</u>

Abstracts are due **1 October 2017**. Abstracts (500 words maximum) for posters (A0 portrait) and talks of 20 minutes are due by email to Leyla Seyfullah: lseyful@uni-goettingen.de

Attendance fee: students free, all others 10 € payable at the meeting.

Conference outline:

Keynote speakers: Paul Nascimbene (American Museum of Natural History) and Jiri Kvaček (University of Prague).

Evening of Friday 24th November: Informal pre-meeting dinner at 19:00.

Saturday 25th November: Workshop with key note presentations; talks and poster sessions, and roundtable discussions. Coffee and lunch will be provided. Conference dinner at 19:00, at your own expense.

Sunday 26th November: Collection visit; amber preservation and preparation, demonstrated by Eva-Maria Sadowski.

Organizers: Eva-Maria Sadowski, Alexander Schmidt and Leyla Seyfullah, University of Göttingen.

For more information: see meeting web link coming soon at:

http://www.geobiologie.uni-goettingen.de/index_e.shtml

Contact us: Any inquiries please email us: lseyful@uni-goettingen.de



Morning view of the Geopark, an educational mixture of large rock samples and an arboretum, surrounding the buildings of the Faculty of Geosciences and Geography at the University of Göttingen (Image: GZG Museum / G. Hundertmark).

Eva-Maria Sadowski, Leyla Seyfullah & Alexander Schmidt (Göttingen)

10th European Palaeobotany Palynology Conference, Dublin, August 12-17 2018

On behalf of the organization committee we would like to extend a warm welcome and invite you to Dublin in August 2018 to attend the 10th European Palaeobotany and Palynology Conference. The disciplines of palaeobotany and palynology are integrative and multidisciplinary by nature. As a community we are constantly seeking new tools and techniques to answer both long-standing and new questions. Palaeobotanists and palynologists demonstrate a strong history of partnership with disciplines that are outside our core biological and geological fields of research such as with chemistry, physics, maths and computer science. Our community have been early adopters of stateof-the- art technology in visualization, experimentation and chemical analyses to name but a few.

The theme for EPPC 2018 'A Multidisciplinary Science' seeks to highlight multi- and interdiciplinarity in palaeobotanical and palynological research, past, present and future. We aim to showcase disciplinary diversity in palynological and palaeobotanical research through themed and open sessions, via demonstrations of new technology platforms in a dedicated exhibition space and during post-conference field excursions.

We have planned exciting cultural activities and field trips for you to explore the great botanical, archaeological and geological richness that the island of Ireland has to offer. These include the famous karst landscapes and flora of the Burren in County Clare and two world heritage sites of immense geological and archaeological interest; The Giants Causeway in Northern Ireland and Skellig Michael, islands within the Atlantic Ocean off the west coast of County Kerry. Mid-conference day trips will showcase the Viking history and building stones of Dublin city and natural heritage of surrounding counties including blanket bogs and oak forests.

Céad Míle Fáilte! We look forward to welcoming you to EPPC Dublin in 2018.

Yours sincerely, Jennifer C. McElwain

Chair, Organization Committee

All information, registration, deadlines and bookings for the EPPC are available on: http://eppc2018.ie/.



10TH EUROPEAN PALAEOBOTANY & PALYNOLOGY CONFERENCE, DUBLIN 12TH-17TH AUGUST, 2018.



5th International Palaeontological Congress, Paris, 2018

THE 5TH INTERNATIONAL PALAEONTOLOGICAL CONGRESS July 9th - 13th, 2018 FRANCE

"The FOSSIL WEEK"

On behalf of the Organising Committee, we are particularly pleased to invite you to France for the fifth edition of the International Palaeontological Congress, the IPC5. Under the auspices of the International Palaeontological Association (IPA) and with the participation of the whole French Palaeontological community, "the Fossil week" will be organized in 2018 in Paris, July 9th-13th.

This event is a unique opportunity for our community to present its new results and discuss all aspects of our discipline.

We propose here some possible symposia and sessions. Of course, the list is provisional and it is still completely open. We are waiting for your proposals.

Fieldtrips are planned before and after the congress throughout France, Belgium and Italy. They will give you the opportunity to discover our palaeontological, geological and gastronomic heritages.

We hope to welcome many of you in France in 2018. Contact details: 1st Circular available: www.palaeontology.geo.uu.se/ISCS/IPC5_1stCircular.pdf

XVIIth Argentine Symposium of Paleobotany and Palynology, Paraná, July 30 – August 5 2018



We are pleased to invite you to participate in the *XVII Argentine Symposium of Paleobotany and Palynology* (SAPP 2018), *TOWARDS NEW CHALLENGES*. This prestigious scientific event brings together the most recognized specialists both locally and worldwide, and its importance is reflected in the significant number of participants who have attended each one, which has risen in the last two symposia, 150 in Corrientes 2012 to 180 in La Plata 2015.

In this edition it will be held for the first time in the city of Paraná, Entre Ríos province, between July 30 and August 5, co-organized by the Latin American Association of Paleobotany and Palynology and the *Universidad Autónoma de Entre Ríos*, declared of Institutional Interest (CS Res. N° 121/17). We thank you for the diffusion of this invitation and we hope to have your valuable contribution. http://fcyt.uader.edu.ar/web/sapp2018

Disclaimer:

Newsletter edited by Lutz Kunzmann & Steven Manchester.

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 (115) until end of January 2018. Contributions should be sent to Lutz.Kunzmann(at)senckenberg.de.

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