#### INTERNATIONAL UNION OF BIOLOGICAL SCIENCES SECTION FOR PALAEOBOTANY



International Organisation of Palaeobotany

## **IOP NEWSLETTER 107**

September 2015

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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 (December 2015) by November 30th, 2015.

President: Johanna Eder-Kovar (Germany) Vice Presidents: Bob Spicer (Great Britain), Harufumi Nishida (Japan), Mihai Popa (Romania) Members at Large: Jun Wang (China), Hans Kerp (Germany), Alexej Herman (Russia) Secretary/Treasurer/Newsletter editor: Mike Dunn (USA) Conference/Congress Chair: Francisco de Assis Ribeiro dos Santos

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

# FROM THE SECRETARY/TREASURER

Dear International Organisation of Palaeobotany Members,

Please accept this July-ish newsletter.

Thanks to everyone who submitted items for the Newsletter. I really appreciate the support of those who sent items in. The International Organisation of Palaeobotany is a Member-Centric Organization, and this Newsletter is an example of how great and meaningful we can be when the membership participates.

XIV IPC/X IOPC is set. We will meet 23-28 October 2016 at Salvador, Bahia, Brazil. Details are below and attached. My personal thanks goes out to Francisco and the entire Organizing Committee. Brazil is a very busy place right now, I certainly appreciate all of the hard work that the Committee has done to get us this far. The generosity of the 2012 IOPC Committee is allowing us to offer financial support for students to attend the 2016 IOPC, so please spread the word. The official call for proposals is below.

Anne-Laure Decombeix submitted a wonderful report on the 3rd International Conference of Agora Paleobotanica, and Mihai Tomescu reviewed the new Fossil Fungi book by Taylor, Krings and Taylor.

In addition, Bob Spicer, Alexei Herman, Tatiana Kodrul and Natalia report on the unfortunate passing of Valentin Krassilov.

Please also note that it is time to begin thinking about the venue for IOPC 2020, and also, who you want to run your organization. A call for nominees to the Executive Council will go out in the December Newsletter.

Please feel free to contact me with questions, comments, or any information you would like passed on to the Membership. I can be reached at:

Mike Dunn Department of Biological Sciences Cameron University Lawton, Oklahoma 73505 Ph.: 580-581-2287 email: <u>michaeld@cameron.edu</u>

## IPC XIV/IOPC X 2016



The 2016 joint meeting of the International Palynological Congress and the International Organization of Palaeobotanists will be held in Salvador, Brazil. The first circular and call for symposia are included as attachments to this email.

The date is set for 23-28 October 2016 at Salvador, Bahia, Brazil. The venue is The Bahia Othon Palace.

The homepage with registration details should be up and running by the end of October, and be sure to note the substantial savings for early registration.

Please submit symposium proposals using the attached form.

# STUDENT TRAVEL AWARDS TO IOPC 2016

Thanks to the generosity of The Organizing Committee for IOPC 2012, we are able to give several travel awards for student travel to IOPC 2016. The awards are competitive and must include:

- 1. Title and abstract of talk (no posters).
- 2. C.V. of no more than two pages.

3. Letter of support from their advisor (may be submitted separately: if submitted separately include the name of the advisor with the original application).

One award of \$3000, three awards of \$2000, and two awards of \$1000 (US Dollars) will be awarded by an international committee, and the winners will be announced in the March 2016 Newsletter

Applicants may be undergraduate or graduate students, and must be members of The International Organization of Palaeobotanists.

Applications must be received by 1 January 2016, and should be submitted to:

Michael T. Dunn Department of Biological Sciences Cameron University Lawton, Oklahoma 73505 ph: 580-581-2287 email: michaeld@cameron.edu

Submissions may be emailed as PDF (preferred), Word, or WordPerfect attachments.

Please also remember to begin thinking about venues for IOPC 2020. All proposals for hosting IOPC 2020 are welcome. I will be happy to share past proposals as templates for submission.

## **MEETING REPORT**

3rd International Conference of Agora Paleobotanica, "A tribute to Bernard Renault (1836-1904)" Autun (France), July 6-9, 2015.

The 3rd international congress of the organization Agora Paleobotanica was held this year in the French city of Autun, to commemorate the research conducted in the area by the famous paleobotanist Bernard Renault (1836-1904). The meeting gathered 49 participants (Figure 1) from 9 different countries: Belgium, China, France, Germany, Italy, Mexico, Netherlands, Spain, and the United Kingdom.

The meeting started in the afternoon of July 6th with an opening talk by Georges Gand (Dijon) on the history of the paleontological and lithostratigraphic studies conducted in the Autun Basin since the XVIIIth century. The Basin is famous for its oil-shale beds



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Meeting participants

and associated sandstones of Autunian (=Asselian, Early Permian) age and is a major reference succession for continental Permian. The opening talk was followed by a welcome address by the mayor of Autun, Mr Rebeyrotte, who then offered the participants an "apéritif" in the Natural History Museum.

A day and a half was devoted to presentations in all areas of paleobotany, with a focus on anatomically preserved plants and fungi that were the main material studied by B. Renault. Three sessions were organized for the twenty six talks: two on Paleozoic plants and fungi, and one on Mesozoic and Tertiary plants. Jean Galtier (Montpellier) opened the first session on July 7th with a keynote on Renault's life and contributions to paleobotany.

The afternoon of July 8th was dedicated to the visit of Autun's Natural History Museum. Five posters on Permien-Jurassic floras were presented. Jean Broutin (Paris) and Jean Galtier had prepared a fantastic temporary exhibit of compressions and permineralised specimens from the Autun

Fossil exhibit organized by Jean Broutin and Jean Galtier at the Autun Natural History Museum. Photo A-L Decombeix

Basin, with the help of the curator of the museum Dominique Chabard. Isabel Van Waveren (Leiden) and Georges Gand also presented an exhibit on plants compressions recently collected at the locality of Muse. The participants were then invited to the Rolin Museum, which contains historical artifacts and paintings from Autun and its region.

The conference diner was held at the restaurant Les Ursulines, a former XVIIth century convent. 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: Alma Rosa Huerta-Vergara (Mexico) for her talk on Cretaceous conifers and the history of Pinaceae in Mexico, and Mélanie Tanrattana (Paris) for her talk on the reconstruction of the late Eocene climate in western Europe using leaf compressions from southern France.



Recipients of the Boureau award: Mélanie Tanrattana (left) and Alma Rosa Huerta-Vergara (right). Photo G. Scanu.

The last morning of the conference was dedicated to a fieldtrip to the small village of Muse to see the Muse Formation (Lower Autunian = Asselian). Participants visited



Collecting Asselian plant compressions at the Muse excavation. Photo A. Boura.

the excavation of the Muse oil shales beds, owned by the Autun Natural History Society and which has been worked at every year from 2010 to 2014. The lithography consists of a succession of black shales in which are interbedded several volcanic ash layers. The shales contain remains of arthropods, fishes, September 2015

amphibians, pollen, and plant compressions. About 600 plant specimens have been collected in the last 5 years; the dominant groups are Filicales, Equisetales, and Cordaitales.

The second stop was a field in the area of Les Echars, which correspond to Renault's "zone 3" of silicified woods.



Looking for Permian silicified wood and chert in Renault's "zone 3" at Les Echars. Photo V. Daviero

Two wood taxa have been identified to date from that zone: Dadoxylon rollei and Scleromedulloxylon varollense. Work in progress will determine if other woods like Metacordaites rigollotii reported from the "zone 4" by Marguerier (1973) are also present. The participants were able to collect abundant specimens of silicified wood at this site and also some blocks of chert containing silicified plants. The congress closed with a picnic in the backyard of the Natural History Museum.

More information about the congress and the abstract volume are available on the following website:

http://amap.cirad.fr/agora-paleobotanica201 5/index.html

Agora Paleobotanica is an association founded in 2010 that brings together European researchers and amateurs interested in paleobotany and palynology. Agora Paleobotanica comes from a reorganization of the OFP (Organisation Francophone de Paléobotanique).

Anne-Laure Decombeix

## **BOOK REVIEW**



### <u>Fossil Fungi</u> – T.N. Taylor, M. Krings & E.L. Taylor 2014

Academic Press / Elsevier 382 pp. ISBN 978-0-12-387731-4 ca. US\$ 115.00-150.00

"Ahh, now that the book came out, I'll be able to describe the fungi in my material", said my friend – a seasoned paleobotanist –

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a few months ago, rubbing his hands in excitement. I have little doubt that this is the kind of attitude that Tom Taylor was hoping to inspire in paleobotanists, all along, as he worked over the past several decades to document and publicize the fungal fossil record. Indeed, if up until now the fungal fossil record – widely scattered across the peer-reviewed journals of several biological disciplines and chapters of edited volumes may have seemed cryptic, nebulous, or at least not entirely coherent, now there's no escaping it: the Taylor-Krings-Taylor team is bringing it to us in all its breadth and depth, and in abundant detail, in their book, Fossil Fungi. The declared scope of Fossil Fungi is to increase awareness of the fossil record of fungi and to record the history of fungi and of their interactions with other biota through geologic time – the volume does both successfully. The authors define paleomycology as the study of the fossil evidence of fungi and their activities throughout time, and the book's introduction (chapter 1) provides a brief history of the discipline and a note on fungal fossil nomenclature. Chapter 2 covers the formation and study of fungal fossils, discussing and illustrating the different modes of fossil preservation of fungi, as well as methods employed in studying them. Chapter 3 deals with the age of fungi as a group – after a quick note on phylogenetic systematics and discussion of molecular clocks, it introduces early-occurring fossils of putative fungal affinities and the importance of fungi and mycorrhiza-type symbioses in land plant evolution. The next chapters, 4 through 9, each deal with one group of fungi: Chytridiomycota, Blastocladiomycota, zygomycetes, Glomeromycota, Ascomycota, and

Basidiomycota. Each chapter starts with a brief introduction to the ecology, life cycles, and systematics of each group. These are followed by detailed and richly illustrated accounts of the fossil record of the group and of the different types of interactions in which its representatives are involved and that are recorded by fossils, in chronological order (starting with the oldest). Where necessary due to high taxonomic diversity and systematic complexity (e.g. Ascomycota, Basidiomycota), major lineages within the group are treated one by one.

Chapter 10 covers the fossil record of lichens, including discussions of early putative lichens and lichen-like associations. The enigmatic Prototaxites is also discussed here, along with other Devonian fossils with tubular organization and Spongiophyton. Chapter 11 is a treatment of the fossil record of fungal spores – discussions of their nomenclature and applications in stratigraphy and paleoecology are followed by a detailed taxonomic overview of their diversity. Chapter 12 is dedicated to the fossil record of interactions between the different groups of fungi and other organisms: plants, animals, as well as other fungal groups. Also included here are fungal trace fossils and fungus-geosphere interactions (bioerosion, rock weathering). Chapter 13 concludes the book with a treatment of bacteria and of fungus-like organisms. The survey of bacteria (including actinomycetes) emphasizes primarily those fossil occurrences related to the plant fossil record – a reasonable choice, as otherwise the book would have needed to be expanded by another 100-200 pages. Aside from these, the chapter includes mycetozoans (slime molds) and an extensive review of peronosporomycetes (oomycetes). At the end of the book, an extensive glossary of terms (more than 700 entries) and bibliography (more than 2400 entries), as well as an index of names (of both taxa and people), provide handy tools for using the book as a reference.

Like the second edition of Paleobotany – the **Biology and Evolution of Fossil Plants**, published by the same team, Fossil Fungi is richly illustrated with color figures. What makes the illustration particularly valuable is the fact that it consists primarily of images of very good quality provided directly by the authors of original papers (as opposed to reproductions of figures from journal articles and books). On the same note, I always liked the parade of portraits of scientists that have contributed to the different topics over time, which Tom Taylor introduced in the first edition of his paleobotany textbook (Paleobotany: An Introduction to Fossil Plant Biology; 1981). This tradition is continued in Fossil Fungi, whose pages feature enlightening and entertaining portraits of paleomycologists, as well as 'neo'-mycologists, lichenologists, etc.. The primary and most active users of Fossil Fungi will be paleobotanists working on all plant groups, with all types of preservation, and from rocks of all ages, for which the book is an excellent reference. I would go as far as to say that Fossil Fungi should be a required reference in every paleobotanist's library (or, at least, the library of their institution). More generally, the book will be a very useful reference for all those working in some way on the evolution of fungi. On a slightly different note, I encourage those of us who teach introductory botany courses that include a treatment of fungi, to bring up in their

lectures the fossil record of the different fungal groups and to illustrate it with images from this book. I am already doing this in my General Botany course and Fossil Fungi will greatly improve the coverage of fungi in the paleobotany course I teach.

Meanwhile, new fungal fossil discoveries keep popping up – several recent ones (e.g., bryophilous fungi, fungal biomarkers in the fossil record) would have certainly made their way onto the pages of Fossil Fungi, had they not surfaced after the book went to press. Given this rate of discovery, maybe it's not too early to start planning for a second edition. If I were to make recommendations for the second edition. here are some thoughts. I would have liked to see more pointed opinions in the discussions of phylogenies and molecular clocks, in chapter 3. While insightful about the different results of such studies as well as the issues associated with them, these discussions leave one wondering what the authors' take really is, as respected scholars of the fungal fossil record, on specific issues that involve the fossil record, such as the resolving power of phylogenies that exclude fossils, or the use of hard (fossil) vs. soft (non-fossil) calibration points in dating studies that address fungal lineages employing molecular clocks.

Topics that could be expanded in the second edition include wood rot fungi and the geochemistry of the fungal fossil record (although this is not a complete list). Given the relative abundance of fossil wood studies that are being conducted worldwide, expanding the wood rot section (in chapter 9) with a more detailed treatment (more examples, images) is likely to introduce the scientists to, or raise their awareness about,

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types of evidence for fungus-wood interactions of which they may be unaware and, thus, overlook. In terms of geochemistry, research in the Taylor lab has been breaking new ground recently on the recognition, specificity, and diagnostic value of fungal biomarkers. Hopefully, this research direction will be expanded in the future and so will be the corresponding section of the book, based on the new findings. Lastly, a few of the landmark fossils discussed could use some (more) illustration – e.g. Honegger et al.'s (2013) Early Devonian lichens, Cyanolichenomycites and Chlorolichenomycites (chapter 10).

In the preface of Fossil Fungi, Taylor et al. discuss several reasons why fossil fungi have been historically neglected. Featuring prominently among these are the perception that fungi are fragile organisms and therefore have low preservation potential; the major disconnect between those who have the fungal fossils and those who have the knowledge about extant fungi that's needed to understand those fossils: and a collecting bias of paleobotanists toward the better-preserved fossils which are, unfortunately, also the least likely to harbor fungal 'intruders'. If the plethora of studies published previously on fossil fungi was not enough to dispel the myth that fungi have low preservation potential, now the weight of the impressive amount of fossil evidence demonstrating the contrary, assembled in this volume, cannot be neglected any longer. All these show clearly that the types and numbers of instances in which fossil fungi are preserved are more numerous than those in which they aren't. Furthermore, by providing a comprehensive reference on the state of the art in fossil fungi that is easily

accessible to paleobotanists and 'neo'-mycologists alike, Fossil Fungi does a lot toward bridging the gulf between those who have the fungal fossils and those who have the knowledge needed to understand them.

Finally, the book provides both the tools to recognize fungal fossils - search images for the different kinds of fossil structures and interactions – and the information needed to interpret them. Accordingly, from here on there are no more excuses for overlooking fungal fossils or ignoring the fungal fossil record, whether you're a paleobotanist, a 'neo'-mycologist, or any kind of botanist and biologist, in general. And if you're a paleobotanist, hopefully next time you go collecting in the field or stumble over a fossil fungus while studying your beloved plant fossils, you won't neglect it anymore instead you'll report it and describe it ... or, at least, will let those of us interested in fossil fungi know about it. So, here's a challenge: let's discover enough fungal fossils that when the time comes for the second edition of Fossil Fungi there's enough new interesting material to double its size!

Alexandru M.F. Tomescu Humboldt State University Arcata, California, USA

## **OBITUARY**

### Valentin Krassilov: 1 December 1937 - 10 February 2015

On February 10th 2015 Valentin Krassilov died in Haifa. Israel. He was a well-known and distinguished geologist, biologist, palaeobotanist, evolutionary scientist, and philosopher. Science was the foundation of Krassilov's life, eschewing the mundane and often requesting that he be left alone to focus on the task in hand. To those who knew him at conferences in later life he could appear humourless, rarely smiling, and often consumed by his own thoughts. However, those who knew him well were aware that he possessed a unique and wonderful sense of humour, liked to participate in the preparation of different celebrations and parties, and reportedly was an excellent dancer.



Valentin Krassilov in 1984; Moscow, USSR, International Geological Congress (photograph by A. Herman)

Valentin was born in Kiev on December 1st 1937. His father was a professional military man and his mother, who taught English, encouraged him to read, write, talk and think in two languages. Valentin often used English when he gave presentations, taught students, and wrote papers and books.

Valentin was awarded a degree with distinction from the Geological Department of Kharkov State University after which, in 1961, his research career started in the Far Eastern Department of the Siberian Branch of the USSR Academy of Sciences in Vladivostok. His PhD thesis was focused on the Early Cretaceous floras of South Primoriye. It was defended after four years of hard work both in the field and in the laboratory. His colleagues of the time remember very well a sparkling defense and his work was marked as one close to the higher Doctor of Science degree.

Valentin's first book entitled "Early Cretaceous Flora of South Primorye and its Stratigraphic Significance", was based on his PhD research, and was published in 1967. In this book he paid special attention to the early angiosperms and from then on, throughout the rest of his life, he returned time and again to the problem of the 'abominable mystery' surrounding the appearance and development of flowering plants.

In 1972 Valentin Krassilov became head of the newly created palaeobotanical laboratory of the Branch of Evolutionary Biology of the Institute of Biology and Pedology, Far Eastern Research Centre, USSR Academy of Sciences in Vladivostok. Vladivostok colleagues remember this time with a particular warmth. He was responsible for

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re-organising the laboratory staff, establishing new methods of research and organizing conferences and seminars. People who worked with him remember that he was already quite influential in the broader scientific community, yet he remained open and accessible. An early mark of his brilliance was that he would not automatically buy into the accepted wisdom of the day and constantly approached problems from unique directions. For almost 20 years Valentin Krassilov was head of the Palaeobotanical Laboratory and several of his students went on to join him in there: Nadezhda Blokhina, Eugenia Bugdaeva, Elena Volynets, Valentina Markevich, Svetlana Shorokhova and others.

Krassilov's second book, 'Palaeoecology of Terrestrial Plants' (Basic Principles and Methods) was published in 1972. In this book the fundamentals of what was then a relatively new research topic, deep time plant palaeoecology, were presented. Very soon this book was translated into English and published in New York. Bob Spicer, who was then starting his PhD in taphonomy, remembers the impact this book had. It was excitedly discussed by the London based palaeobotanists because it represented a new way of looking at palaeobotany and attempted to break down palaeoecological problems into well-packaged elements. This book was one of only a few research monographs of the Soviet period published in the west.

Numerous field expeditions in the Soviet Far East provided Krassilov with abundant material for another scientific approach – Ecostratigraphy. This approach embraces a complex stratigraphic study based on palaeoecology. Many principles and

methods of this approach were published by him in two books entitled " Ecostratigraphy: theory and Methods" (1985) and "Cretaceous Period: Evolution of Earth's Crust and Biosphere" (1985).

One of his major theoretical books named "Evolution and Biostratigraphy" was published in 1977 when he was still career young. In this major work he, for the first time, used a synthetic analysis of periodicity in geological processes and biological evolution. Throughout his life he returned to this approach and his novel perspective on macroevolution was a recurring theme throughout numerous papers and monographs. The logical continuation of the idea that a single mechanism and common principles permeated the development of the planet and its organisms, including human beings, is encapsulated in "Unsolved problems in the theory of evolution" (1986), "Ecosystem and Egosystem evolution" (1995), and "MetaEcology: the Pattern of the evolution of natural and spiritual systems" (1997). Here the general model of organic evolution became a theoretical background for the study of the principles underlying development of the personality and human spirituality.

It is obvious from these works that Valentin was interested in philosophy and indeed this had been so since his early childhood. His mother recalled that even when her son was a schoolboy he recited from Socrates and tried to explain any event using principles of liberalism. At the beginning of perestroika Krassilov was a co-founder of the 'Intelligent Club' in Vladivostok, where philosophical seminars were held.

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Valentin Krassilov had an ability to see problems from a large-scale perspective and perceive clear directions for the future while at the same time appreciating today's needs. For example, when he was in Vladivostok, he initiated an ecological council in the Institute of Biology and Pedology that dealt with different aspects of nature conservation. Issues considered included the building of a nuclear power station in Primorya and the ecological problems of lakes in the Far East. His ecological interest was later reflected in his book named 'Nature Protection: Principles, Problems, Priorities' published in 1992.

A new stage in Krassilov's life started in 1989 when he moved to Moscow and became director of the All Russian Institute of Nature Protection and Conservation belonging to the ministry of Ecology. Valentin provided significant scientific input into what was then an institute focused purely on practical activities.

In 1994 Valentin Krassilov was appointed head of the newly created Laboratory of Palaeobotany in the Palaeontological Institute of the Russian Academy of Sciences. When he arrived there was no equipment and no team of specialists with whom to work. To develop this laboratory Valentin had to first of all obtain modern technical equipment and attract bright co-researchers. In the 1970s he was one of the first Soviet scientists to use the SEM. He did all the routine work in material preparation, and even with light microscope work he made his own slides and took his own high quality photographs. He invited many young specialists from biological and geological departments of Moscow State University to work in his laboratory,

supervising bachelor and masters and PhD research dissertations. Even now many of his former students work at the institute including: Natalia Maslova, Natalia Gordenko, Maria Tekleva, Eugenii Karasev, and Alexandra Sokolova.

In April 2001 Krassilov moved to Israel to support his elderly mother. There he started to work with the Institute of Evolution, University of Haifa. He continued his supervision of students in the Palaeobotanical Laboratory of the Palaeontological Institute in Moscow while conducting laboratory studies and fieldwork together with the staff of the Haifa laboratory. Krassilov did a lot to develop palaeobotany in Israel, giving lectures to both students and staff of the university, supervising research and conducted fieldwork, including the collection of numerous Cretaceous plant fossils from the Negev desert. He co-authored a book with Israeli colleagues entitled "Turonian flora of southern Negev, Israel" published in 2005. Valentin also continued his research of plant insect damage. Results of this research were published in a series of papers and a book "Plant – Arthropod Interactions in the Early Angiosperm History: Evidence from the Cretaceous of Israel" (2008).

From the very beginning of his scientific research Valentin was interested in the problem of the origin and early evolution of angiosperms, publishing several books on this topic: "Cercidiphyllum and fossil allies: morphological Interpretation" and "General Problems of Plant Evolution and Development" (2010).

The problem of angiosperm origins was discussed by him in a series of papers and

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two books published in 1989 and 1997: "Problem of Origin and early Evolution of Flowering Plants" (1989) (In Russian), and "Angiosperm Origins: Morphological and Ecological Aspects" (1997). He was the first to note that typically angiospermous features appeared independently in many different groups of Mesozoic gymnosperms and called such plants pro-angiosperms. He published an innovative hypothesis of a new evolutionary mechanism – horizontal gene transfer - due to which angiosperm features became aggregated in one organism, which ultimately gave rise to flowering plants. In many ways this parallels the idea of reticulate evolution in which, early in the evolution of a major group of organisms, frequent hybridization brought about by weak breeding barriers results in a network of gene flow and a mixture of characters that only become later canalized to form recurring sets of morphological features. Such ideas are becoming increasingly popular to explain early human evolution.

Krassilov's views were not always popular with traditionalists. He was aware that numerous examples show that the assignment of Cretaceous angiosperm leaves to modern genera and families is erroneous or, at least, needs more support. Krassilov pointed out that for Cretaceous angiospermous leaves we need to use a morphological classification that is independent from the system used for modern plants. This morphological system should be based on observed features of leaf morphology rather than on weak and often erroneous hypotheses about the morphology of the whole plant. Krassilov (1979, p. 43) noticed that "only an inductive system with clear diagnoses of the taxa (each taxon includes leaves of a definite morphological

type rather than those resembling leaves of a particular extant genus) and consistent application of the principle of priority to names can provide a common language and reduce the loss of information." This approach allows a palaeobotanist to detect the first appearance of a particular leaf morphotype, trace its geological history, and document the proportions of particular leaf morphotypes that occur within certain time intervals and certain fossil floras. Not everybody agreed with Krassilov's views, but the problem of angiosperm origin is complicated and it is unreasonable to expect simple answers to this question of flowering plant early evolution. Krassilov's insights into this topic are all the more valuable for their originality.



Valentin Krassilov in 2006; Prague, Czech Republic, The 7th European Palaeobotany-Palynology Conference (photograph by A. Herman)

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In 2014 Valentin Krassilov finished and published his book "Evolution: System Theory". In this book he includes a synthesis of his views developed throughout his life. He published more than 400 papers and more than 20 books. He was a member of the editorial boards of international and Russian Journals such as Review of Palaeobotany and Palynology, Palaeobotanist, Acta Palaeobotanica, and Palaeontological Journal. He was a field palaeobotanist collecting material from numerous parts of the world including Sakhalin, Kamchatka, Primorye, Amur River Region, Lake Baikal Region, Siberia, Crimea, Israel, Lebanon, China and Mongolia. Not long before he died he took part in an international conference dedicated to 45th anniversary of Russian/Mongolian Palaeontological Expeditions and planned some research with Mongolian Colleagues that was to have taken place in the summer of 2015.

We shall miss his originality, depth of thought and companionship.

Bob Spicer, Alexei Herman, Tatiana Kodrul and Natalia Maslova

# IOP EXECUTIVE COMMITTEE

The official call for nominations for IOP Officers will go out in the December Newsletter, but just to keep everyone informed, this is what you need to be thinking about and talking about with your colleagues.

From Article 4 of the IOP Constitution:

4.1 The officers of IOP shall be: President; three Vice-Presidents; Secretary/Treasurer; three Members at Large; Conference/Congress Member.

4.2.1 The President shall chair meetings of the Executive Committee and the General Assembly.

# The position of President is up for election and needs a nominee.

4.3.1 The Secretary/Treasurer is the driving force behind the Organisation. He/she shall transmit suggestions from the membership to the President and Executive Committee, maintain an IOP web site on the internet, maintain contact with regional and local groups of palaeobotanists, maintain contact with IUBS by the assistance of one of the Vice Presidents, control the income and expenditure of IOP and maintain a central treasury, transmit decisions of the Executive Committee and President to the membership. The newsletter shall be the Secretary/Treasurer's chief medium of communication.

> The position of Secretary/Treasurer is up for election and needs a nominee. Although this position is eligible for consecutive terms, I am not running and will not accept a nomination. Therefore I will act as a neutral election monitor.

4.5 Vice presidents shall not serve more than one consecutive term of office. One of the three Vice Presidents is selected by the Executive Committee to take special responsibility for the Committee with IUBS affairs. He/she will instigate creative projects, in consultation with the Executive Committee, which will be part of the activities of IUBS relevant to the aims of the IOP.

> The three Vice-President positions are all up for election and need nominees.

4.6 The three Members at Large must be from different countries: they may not serve more than two consecutive terms of office.

> The three Members at Large: Jun Wang (China), Hans Kerp (Germany), and Alexej Herman (Russia), are all eligible for reelection, however must be renominated. Other nominations will also be accepted.

The Conference/Congress Member will be selected by the Executive Committee once the venue for IOPC 2020 is selected.

## **UPCOMING MEETINGS**

### 24th International Workshop on Plant Taphonomy 2015, November 26 - 27, 2015, Stuttgart, Germany

The International Workshop on Plant Taphonomy 2015 will be held at the State Museum of Natural History in Stuttgart, ermany, from November 26th to 27th. In line with the traditionally open character of the International Plant Taphonomy meetings, we cordially welcome contributions (oral, poster and/or workshops) dealing with various

palaeobotanical topics and we invite contributions dealing with a broad range of issues. One highlighted topic, for example, will concentrate on fossil leaf traits and their significance in palaeoclimatology, palaeoceophysiology and taxonomy.

More information can be found on http://www.plant-taphonomy-2015.naturkundemuseum-bw.de/.

Please note that the deadline for registration and abstract submission is September 1<sup>st</sup>, 2015.

Contact Anita Roth-Nebelsick anita.rothnebelsick@smns-bw.de

Organizers: Anita Roth-Nebelsick (anita.rothnebelsick@smns-bw.de) Michaela Grein (michaela.grein@smnsbw.de) Johanna Eder (johanna.eder@smns-bw.de)

# The 10th European Palaeobotany and Palynology Conference



EUROPEAN PALAEOBOTANY & PALYNOLOGY CONFERENCE

September 2015

The 10th European Palaeobotany and Palynology Conferencewill be held in Dublin on the 12th to 19th of August 2018 at University College Dublin. Partner organizations include Trinity College Dublin and the National Museum of Ireland. We look forward to welcoming you in 2018!

Jennifer McElwain, Earth Institute, University College Dublin Chair of EPPC organizational committee

# CALL FOR NEWS AND NOTES

Please send submissions for the next news letter by 30 November 2015 to:

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