PALYNOS

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NEWSLETTER OF THE INTERNATIONAL FEDERATION OF PALYNOLOGICAL SOCIETIES

http://palyno-ifps.com/

CONTENT OF PALYNOS VOL. 43 (2)

IFPS BUSINESS

XV IPC / XI IOPC, Prague, Czech Republic – New Dates: May 25th–31st, 2024

Dear colleagues

As you may know, a few days ago, the XV IPC / XI IOPC planned first to take place in September 2020, and than in May 2021, is now definitely postponed due to the current COVID-19 pandemic to **May 25th–31st, 2024**.

We look very much forward to this exciting conference and that all palynologists and palaeobotanists from all over the world will be able to join this event in good health and without risks.

All necessary information will be announced on the conference webpage:
https://www.prague2020.cz/index.php

Jean Nicolas Haas, IFPS President
Email: Jean-Nicolas.Haas(at)uibk.ac..at

IFPS Accounts 2016–2020

A FINANCIAL SNAPSHOT OF IFPS IN JANUARY 2021

The present cash holdings of IFPS are £8,122.98. IFPS has two bank accounts, both with the British high street bank NatWest. They were set up at the Sheffield branch of NatWest by our former Secretary-Treasurer Charles Wellman. The current account presently has a balance of £2,921.32. This account does not pay any interest whatsoever at this time. The most recent payment was £335.00 in January 2021 to Gareth Davies; this represents the annual maintenance fee for our IFPS website. Apart from website maintenance, the previous payments out were to the students that we sponsored to attend the

EPPC Dublin conference held in August 2018. I also received some society subscriptions during 2020.

Our "Business Reserve" account currently has a balance of £5,201.66. The account presently pays us the princely interest rate of 0.01%. This means that we receive £0.05 every two months! I only transfer money over to the current account when we need to pay student conference sponsorships, which basically represents our total spend.

This represents the current financial picture of the organisation. It should remain relatively stable over the foreseeable future, because physical conferences are not taking place due to the pandemic.

If any member has any questions about IFPS finances, I would be delighted to answer them.

James B. Riding
(Secretary-Treasurer and President-Elect)
Email: jbri(at)bgs.ac.uk

26 January 2021

New IFPS Councillor

We would like to give a warm and safely social distanced welcoming to our new councillor! Please see below a brief introduction of themselves, their new role and contact details.

Terri Lacourse – CAP

Dr. Terri Lacourse is Associate Professor of Biology at the University of Victoria in Victoria, Canada.

She is also a faculty member in the Centre for Forest Biology at the University of Victoria. She completed her PhD under the supervision of Dr. Rolf Mathewes at Simon Fraser University and her Master's degree with Dr. Konrad Gajewski at the University of Ottawa.

She has been a member of the Canadian Association of Palynologists for 25 years. She was President of the Association (2012-2013) as well as Editor of its Newsletter (2006-2011), before becoming IFPS Councillor in 2020.

Dr. Lacourse is a palynologist and paleoecologist. Her main area of research focusses on the development and dynamics of temperate forest since the last glaciation, using techniques such as pollen and charcoal analyses of lake sediment and peat. She places emphasis on identifying the ecological and life history factors that influence long-term changes in species abundance, species interactions, and community distributions. She is also keenly interested in increasing the taxonomic resolution of fossil pollen and stomata identification. Recent research efforts have focussed on wetland development and succession, and the links between peatland carbon accumulation and climate change.

Terri Lacourse
CAP councillor
Email: tlacours(at)uvic.ca

OBITUARIES

ERIC C. GRIMM (1951 – 2020)

The untimely death of Eric Grimm on 15th November 2020 is a much regretted loss to the global community of palynologists to which he contributed so much. Eric was a distinguished research palaeoecologist, a skilful and amusing companion in the field and one of the most widely known palynologists of his generation. He is best remembered for his advocacy of pollen databases and almost single-handed creation, maintenance and patient, good-natured back-up service for the widely used Tilia platform that displays palaeoecological data.

Eric was born in Cincinnati, Ohio but grew up in Rapid City, South Dakota, where his father was a distinguished mathematics professor at the South Dakota School of Mines & Technology. His father posed "Grimm's Conjecture" for consecutive composite integers and was a much appreciated teacher who is also remembered for his avid appreciation of the Black Hills and his friendly smile. All these qualities and interests were also strongly developed in Eric, with the addition of his generosity in sharing his knowledge and assistance on an international stage.

Eric was awarded his PhD in 1981 at the University of Minnesota under the supervision of Ed Cushing, at a time when there were five independent palynological research groups at the university, including one led by the legendary Herb Wright at the Limnological Research Center (LRC). Margaret Davis and Ed Cushing had groups based in the Department of Ecology and Evolution, which suited Eric's biological interests. Ed Cushing is a gentle, generous scientist of extreme scientific rectitude and his numerical rigour is also a feature of Eric's subsequent work.

Figure 1. Eric Grimm visiting glacio-aeolian deposits at Lutterzand, the Netherlands, in April 2017. Photo: Henry Hooghiemstra.

Eric always loved numbers and when I visited his laboratory in 1980, I was amused to see a very large figure written on the blackboard that was Eric's estimate of the number of pollen grains still uncounted in Minnesotan sediments. The number was revised downwards each week and was a typical Eric calculation. George Jacobson also from Rapid City (the Grimm and Jacobson families were good friends) had helped with the counting, finishing his thesis in 1975. Eric's thesis topic on hypothesis-testing of drivers of Holocene dynamics in the Big Woods of southern Minnesota has become a classic. He combined pollen analysis (including Wolsfeld Lake -familiar to all Tilia users) with historical land surveys to demonstrate the

importance of fire and climate on the long term invasion of prairie by forest communities (Grimm 1983, 1984).

Eric held a post-doc at the University of Cambridge directly after his PhD where he took part in the first European Union palaeoecological research project led by Bill Watts (Dublin) and John Birks (Cambridge). The exciting field trips to the west of Ireland and western Spain generated many stories and some useful data. Eric was mentor for two young Irish research assistants (Gina Hannon and Madeline McKeever) advising Gina on where to camp to minimise the risk of bear attack - a lesson she has never forgotten. While coring near Seville, their car was broken into (not by a bear). Eric lost his passport and Bill Watts lost a manuscript he was editing from a Russian palaeoecological review volume that was never recovered (there were no digital backups in the 1980s). This project was the foundation for a long professional friendship between Eric and Bill Watts. Eric was a wonderful companion and expert in the field who helped with numerous subsequent coring expeditions in Florida. Their collaboration culminated in the important papers that came from the Lake Tulane record where Eric, Bill and others demonstrated striking correlations between *Pinus* population fluctuations in Florida and the north Atlantic Heinrich events during the last glacial period (Grimm et al. 1993, Grimm et al. 2006). Bill Watts regarded these publications with Eric as the academic high points of his own distinguished career.

After Cambridge, Eric returned to Minneapolis and worked at the LRC on soft money, caught for a while in the dreaded 'post-doctoral trap', as were colleagues like Paul Glaser and Steve Jackson (Brown University). Those were lean times for palaeoecologists in North America. During this period, Eric was encouraged by Herb Wright to begin exploring Holocene records of vegetation dynamics, drought episodes and fire on the northern Great Plains, comprising the states of North Dakota, South Dakota, most of Minnesota, Iowa, and Nebraska. These were topics and field areas that were to preoccupy much of his subsequent research career. In 1988 Jim King left Illinois State Museum (ISM) to move to the Carnegie Museum, Pittsburgh and Eric was appointed as his replacement as Curator of Botany at ISM. He subsequently rose to become the Director of Sciences in 2013. He helped lead the Landscape History Programme, which was a perfect fit to his skills and experience. Eric's role was to develop the understanding of long-term changes in climate, landforms, ecosystems, and human-environment interactions and organise displays for the Museum's Natural History hall. This was also the most academically productive period of Eric's career. The palaeontologist Russ Graham was Head of Geology at the ISM when Eric arrived and was collating FAUNMAP, a database documenting late Quaternary distributions of mammal species in the United States. They began a collaboration that eventually led to the development of the Neotoma palaeoecology database and research community (Graham & Grimm 1990).

The pivotal role of Eric throughout the history of pollen database development is possibly his greatest legacy and epitomises his selfless dedication to palynology. Soon after his arrival at ISM he visited Tom Webb at Brown University and negotiated the transfer of the pollen database, developed during the Cooperative Holocene Mapping Project (COHMAP), to a more stable base at a major museum. Eric argued persuasively that a museum could manage the long-term curation of data as effectively as old bones or artefacts. Tom Webb showed some natural initial reluctance to hand over the North American pollen data that he had worked so hard to bring together. As his first post-doc, I had overheard Tom's long phonecalls to American palynologists convincing them of the scientific benefits of large, integrated datasets. However, Eric can be as persuasive as Tom and the North American Pollen Database (NAPD) was established at ISM. Eric thought big and already had a vision for a Global Pollen Database (GPD). I watched

him skilfully persuade a motley crew of leading European palynologists to establish a European Pollen Database at a 1989 meeting at Frostavallen, Sweden. European palynologists proved even more resistant than Americans to the idea of contributing their hard counted pollen data to a central site. John Birks argued for regional databases with strict quality criteria, barring data that did not meet the standards, but Eric's broader vision has proved to be the winner with the data users making their choice about appropriate data standards rather than the database managers. It has helped that digital memory is now far cheaper than it was back in the last century.

Eric was subsequently involved in several pollen database initiatives in Africa, China, the Indo-Pacific region, Japan, Latin America and Siberia. Together with his Tilia platform for handling, analysis and display of data he became a familiar figure to palynologists worldwide. In 1999 the first GPD meeting was held in Colorado, and I hosted a second GPD meeting (2001) in a medieval Danish Castle, where Eric led the discussions and gave a uniquely learned lecture on the critical topic of taxonomic harmonisation in pollen databases. Eric developed user-friendly data entry and analytical software using his programming skills and made them freely available to the scientific community. His generosity and personal assistance in supporting users of Tilia, CONISS and TiliaGraph have been major factors in the development of palaeoecological databases and associated new research (Grimm 1987, Grimm et al. 2013).

In parallel to his database and museum outreach, Eric also carried out his own significant innovative palaeocological research. His publication based on analyses from Kettle Lake, North Dakota is a personal favourite. The analytical detail of pollen, charcoal and minerals is impressive, but the discussion is a masterpiece with several earlier hypotheses from the literature re-evaluated and detailed new insights gained into major climate events and mid-Holocene wet-dry cycles of the northern Great Plains. The arguments for the *Selaginella densa* records responding to bison and subsequently cattle grazing are original and convincing (Grimm 2011).

In 2015, Eric resigned from ISM together with most of the senior staff in protest at the imminent closure of the 138 year-old institution. The new Republican governor of Illinois had vetoed the budget proposed by the Democratic-run legislature and imposed unprecedented spending cuts that included closure of the ISM. There was a strong Democratic political defence and public reaction, but to no avail in the hardening atmosphere of political confrontation in North America. Eric was devastated, telling Science magazine "you watch the whole thing you helped build be brought down basically because of politics". He moved his research materials back to his Alma Mater in Minneapolis, affiliated as a research project specialist. It was an undeserved, stressful and disappointing career development, but did not restrict his selfless service to the palynological research community or his contribution to international conferences. He spoke at INQUA, Dublin 2019 where his talk titled "Pollen databases: from von Post to Neotoma" was given to a fully packed lecture theatre with a large crowd outside the doors straining to hear what they could. Eric was one of the best known speakers at the major international meeting of the Quaternary Sciences.

Eric Grimm's selfless personality, modesty and special sense of fun made him one of a kind. He reached across the generations of palynologists contributing to a strong sense of an international community. He has left a tremendous legacy in the subject area, both amongst his colleagues and trainees and through his software, publications, advocacy of databases and training sessions. His memory will be treasured by many for years to come.

References

Grimm, E.C. (1983) Chronology and dynamics of vegetation change in the prairie-woodland

region of southern Minnesota, U.S.A. New Phytologist 93, 311-350.

Grimm, E.C. (1984) Fire and other factors controlling the Big Woods vegetation of Minnesota in the mid-nineteenth century. Ecological Monographs 54, 291-311.

Grimm, E.C. (1987) CONISS: A FORTRAN 77 program for stratigraphically constrained cluster analysis by the method of incremental sum of squares. Computers & Geosciences 13, 13-35.

Graham, R.W. & Grimm, E.C. (1990) Effects of global climate change on the patterns of terrestrial biological communities. Trends in Ecology and Evolution 5, 289-292.

Grimm, E.C., Jacobson, G.L. Jr., Watts, W.A., Hansen, B.C.S. & Maasch, K.A. (1993) A 50,000-year record of climate oscillations from Florida and its correlation with Heinrich events. Science 261, 198-200.

Grimm, E.C., Watts, W.A., Jacobson, G.L. Jr., Hansen, B.C.S., Almquist, H.R. & Dieffenbacher-Krall, A.C. (2006) Evidence for warm wet Heinrich events in Florida. Quaternary Science Reviews 25, 2197-2211.

Grimm, E.C., Donovan, J.J. & Brown, K.J. (2011) A high-resolution record of climate variability and landscape response from Kettle Lake, northern Great Plains, North America.

Grimm, E.C., Bradshaw, R.H.W., Brewer, S., Flantua, S., Giesecke, T., Lézine, A.-M., Takahara, H., & Williams, J.W. (2013) Databases and Their Application. In: Elias, S.A. (ed.) The Encyclopedia of Quaternary Science, vol. 3, pp. 831-838. Amsterdam: Elsevier.

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MAYA VLADIMIROVNA OSHURKOVA (1932 -2020)

One of the eminent palynologists of Former USSR and Russian Federation Dr. Maya Vladimirovna Oshurkova passed away in November 2020. Maya Oshurkova was a highly qualified specialist and an authority in the field of Upper Paleozoic palynology. For more than 60 years, she worked in the A.P. Karpinsky Russian Geological Research Institute (VSEGEI).

Maya Oshurkova is the author of over 120 scientific publications. She made a significant contribution to the study of microspores, megaspores, and macroscopic plant remains from the Carboniferous and Lower Permian deposits.

She developed the principles and method of facies-paleoecological research in paleobotany, introduced the term "phyto-oryctocenosis" and gave its definition. Maya Oshurkova typified phytooryctocenoses from the Carboniferous coal-bearing deposits of Central Kazakhstan and applied paleoecological successions of phytooryctocenoses for ecostratigraphic correlations. The palynological studies of Maya Oshurkova covered coal basins in Kazakhstan, Minusinsk and Kuznetsk coalfield in Russia, the Donetsk and Lviv-Volyn coal basins in Ukraine, Dobrudzha and Svoge coal basins in Bulgaria.

Two of her books (M.V. Oshurkova “Megaspores of the Carboniferous. Taxonomy, biostratigraphic significance. Handbook for paleontologists and geologists” SPb.: VSEGEI Publ. house, 2001. 112 p., and M.V. Oshurkova “Morphology, classification and description of form-genera of the Late Paleozoic miospores” SPb., VSEGEI Publ. House, 2003. 377 p.) became the most useful reference books on the upper Paleozoic palynomorphs for Russian and foreign colleagues. The second of the two

monographs (Oshurkova, 2003) was awarded the Hans Rausing medal of the third degree for the best paleontological work of 2004.

Since 1980, Maya Oshurkova was an active member of the Bureau of the Palynological Commission of Russia, and member of the International Federation of Palynological Societies (IFPS) (in the period 1988-1996). Maya Oshurkova was a member of the Central Council of the Paleontological Society of Russian Academy of Sciences and took part in Bureau of Carboniferous Commission at the Interagency Stratigraphic Committee of Russia. With great enthusiasm she worked in organizing committees of many Russian and international palynological conferences. She put a lot of effort into creating a bibliographic reference book "Palynologists of Russia", and since 2001, she edited and published the excellent newsletter "PALYNINFORM".

Maya Oshurkova was an amazing, noble, very modest person, a charming woman and an attentive colleague, always helping in problems and giving advice on the morphology of Paleozoic miospores. Blessed memory of Maya Oshurkova will remain forever in the hearts of her friends and colleagues.

Natalia Bolikhovskaya
(President of Russian Palynological Commission)
Lomonosov Moscow State University
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&

Elena Novenko (IFPS councilor)
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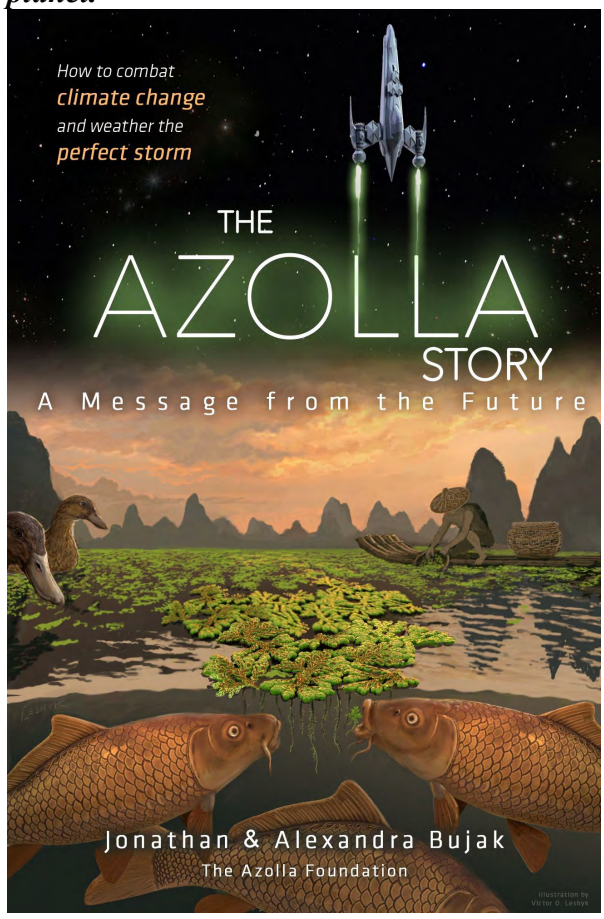
BOOK ANNOUNCEMENT

THE AZOLLA STORY : A MESSAGE FROM THE FUTURE.

A miracle plant worshipped in the East. A Superorganism with unique abilities. The Third Event since life originated on our planet.



This is the story of a wonder plant called azolla that can help us at this crucial moment in our human journey.
Written by Dr Jonathan Bujak, a palaeontologist with more than forty years' experience in the Arctic and his environmental scientist daughter, Alexandra, The Azolla Story takes the reader on an amazing journey through time and space, ending with a message written a hundred years from now in a world of incredible opportunities.

THE PAST
Deep Time

It begins with the 2004 Arctic Coring Expedition (ACEX) that discovered the Arctic Azolla Event featured in National Geographic (May 2005) and Nature (1 June 2006). Forty-nine million years ago azolla repeatedly covered large areas of the Arctic Ocean and drew down enormous quantities of the greenhouse gas carbon dioxide (CO_2), ending the world's greenhouse climate and moving it towards today's icehouse world with its succession of ice ages. Azolla was able to do that because of its phenomenal growth – doubling its biomass in less than a day floating on layers of fresh water that spread across the Arctic Ocean during the warm, humid Arctic summers.

Figure 1. Fossil azolla preserved on the facing sides of a mudstone that has been split open from the Green River Formation of Colorado, dated between 50.5 and 55.5 million years. Scale in centimetres. Photograph provided by Ian Miller of the Denver Museum of Nature and Science.

Combining the latest data on biology and genetics with geology and palaeontology, The Azolla Story describes the timing and location of a Whole Genome Duplication event that led to third major evolutionary jump since life began on our planet. The first two resulted in the amazing diversity of life on our planet, including all plants, animals and humans – a complexity of life that may be rare on other worlds that have life. The third evolutionary jump resulted in azolla – the only plant with a co-evolving nitrogen-fixing cyanobacterial symbiont that converts atmospheric dinitrogen into the essential nutrients needed for azolla's phenomenal growth free-floating on water. As a result, azolla was formally designated as a Superorganism by University of Lisbon's Francisco Carrapiço in 2010 – a unique plant that can help us overcome the multiple threats of the Perfect Storm we face today: shortages of land, fresh water, food and energy, plus man-made climate change as our population grows by more than a million every three days.

From Deep Time to Our Time

The story then transports us from Deep Time to Our Time as we see how azolla was first cultivated in rice paddies 6900 years ago in China, doubling rice productivity without the need for chemical fertilizers and pesticides. We see how Buddhist monks spread the knowledge of azolla's use as a biofertilizer and livestock feed in India and the Far East, and how it was brought back to France at the end of the eighteenth century by a naturalist and his remarkable assistant. Jeanne Baret disguised herself as a man so that she could go on Louis-Antoine de Bougainville's circumnavigation of the globe – the first women known to travel around the world. The plants brought back to France would be formally named 'azolla' by the French naturalist Jean-Baptiste Lamarck in 1783.

The stage was now set for the next part of our journey as we move from the Past into the Present.

THE PRESENT

The Present shows us the many ways in which azolla can help us weather today's Perfect Storm. The story takes us to different parts of the world, including India where azolla is revered as a wonder plant, transforming the lives of smallholder farmers for less than one US dollar (80 rupees) a year, and then to Ecuador where it can save the country more than a billion dollars a year and protect the country's precious ecosystems.

Thanks to the Azolla Foundation set up by Alexandra and Jonathan Bujak, thousands of smallholder framers around the world have been shown how to sustainably farm with azolla. In Sierra Leone, azolla's use as a biofertilizer in rice paddies provides the country's Ebola Orphans with food and

money to build their schools, while also preventing deforestation of the region.
The Azolla Story then takes us into space to see how azolla can be used in closed-loop life support systems (CLLS), providing food, recycled oxygen and purified water that are essential in space travel and the colonization of other worlds.

Figure 2. Fossil Azolla shown in illustration 10.1 has leaves (circled in red) and tendrils (circled in blue) that are identical to those of modern Azolla (right).

Back on Earth, the Azolla Biosystem, which is described in the book, grows azolla anywhere on our own world. The highly flexible, modular biosystem sequesters CO2 for Carbon Capture and Storage (CCS) or converts the greenhouse gas into a local source of renewable food, livestock feed, biofertilizer, biofuel and high-value pharmaceuticals.
But azolla can do more. Azolla Hubs that house the Biosystem increase urban agriculture in the world's growing megacities, connecting their inhabitants with nature through living, green arteries – a connection that is essential for our health as individuals and societies.

THE FUTURE

The last part of the book transports us to the shore of the Arctic Ocean a hundred years from now. As we stand there remembering the events of the past century, we record our message and view a world that is bright with optimism. It is a future that we can all have with azolla's help – a unique plant, a Superorganism and an ally on our remarkable human journey.

THE IMPORTANCE OF GEOLOGY AND OUR CONNECTION WITH NATURE

The Azolla Story illustrates the relevance of geology to today's world. It shows us how we can use our knowledge of the past to solve the multiple problems that we now face and how we can turn a problem into a solution. To quote from the book:
'It shows us the value of working with nature and its roots that go far back into the mists of Deep Time – time that is measured in billions of years – an unfathomable chasm compared to our own brief time as humans.
We really are the new kids on the block, but we are also beginning an incredible journey of exploration and discovery, providing we survive the next few years and weather a Perfect Storm that threatens us all. We can do that with azolla's help – a friend and ally at this crucial time in our human journey.
All we have to do is say yes, let's do it together.'
Join us on that journey as you read The Azolla Story.'
With an extensive Glossary of scientific terms and more than 600 citations linked to their web pages, The Azolla Story is written for both the specialist and the non-scientist. Its aim: to make people aware of a unique Superorganism and how it can help us overcome the Perfect Storm that threatens us all.

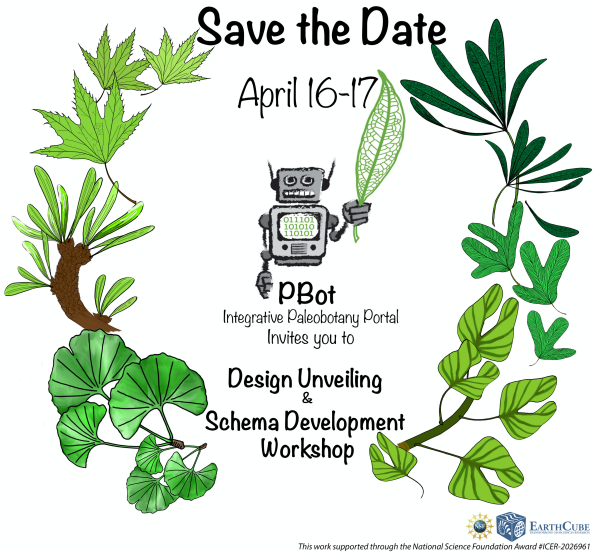
By Jonathan and Alexandra Bujak
Published as an ebook, 31 December 2020.
Available from Amazon (free with Kindle Unlimited until 31 March 2021).

Kindle Discount Deal: The ebook is also available for a discount on amazon.com and amazon.co.uk between Thursday 5 February and 11 February 2021:
Since 5 February at 4pm: $1.99 and £1.99
Since 7 February at 12 am: $2.99 and £2.99
Since 8 February at 8am: $3.99 and £3.99
Since 9 February at 4pm: $4.99 and £4.99 until midnight 11 February.
The book will then revert to its usual price of $9.99 and £9.99.

For more details about the book and see http://theazollastory.com/about-the-azolla-story/
or contact jonathanbujak(at)outlook.com

NEW INITIATIVES

INTEGRATIVE PALEOBOTANY PORTAL (PBOT)



Dear Colleague,

We would like to announce the development of the Integrative Paleobotany Portal (PBot), an online database and platform for paleobotany. The project is supported by the National Science Foundation EarthCube program, and is in the first phase of its three-year development plan. PBot will serve as an online database of fossil plant descriptions and their associated specimen & occurrence records, a workbench for researchers describing plants, and a central hub for paleobotanical educational and outreach content. PBot will work seamlessly with the Paleobiology Database, as well as the museum specimen database iDigBio. We hope to solicit feedback and participation from across our worldwide community of paleobotanists as we develop this online platform - we aim to make is as useful as possible so that it may facilitate a broad range of paleobotanical research and collaboration. More information about the project can be found at the following link:

https://www.nsf.gov/awardsearch/showAward?AWD_ID=2026961

PBot will be hosting a virtual workshop April 16 & 17, 2021. Please see attached Save The Date for additional information. A detailed itinerary for the workshop along with registration information will follow at a later date (the workshop will be free).

Thank you kindly,

PBot Development Team

Dr. Ellen Currano
Dr. Dori Contreras
Dr. Andrew Zaffos
Dr. Rebecca Koll
Claire Cleveland
Dr. Mark Uhen
Dr. Shanan Peters

FUTURE MEETINGS

2021

2021 AASP ANNUAL MEETING 2021

The AASP Annual Meeting 2021 will take place in Manizales, Colombia, probably end of August/beginning of September 2021.

2021 MEDPALYNO (ONLINE) SEPTEMBER 8-9, 2021

The MedPalyno conference planned in presence at Paestum, Italy, has been cancelled, and will happen instead as as a joint online meeting of APLF, APLE, and GPPSBI on September 8-9th, 2021. More information in due times at https://assoaplf.wixsite.com/website

2022

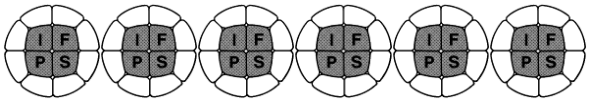
2022 11TH EUROPEAN PALAEOBOTANY & PALYNOLOGY CONFERENCE

The 11th EPPC conference will take place in Sweden, very likely in Stockholm, and as an online conference. More information in due times.

2024

2024 XV IPC / XI IOPC, PRAGUE, CZECH REPUBLIC 2021

The newly planned date for our main palynological/palaeobotanical conference is **May 25th–31st, 2024**. All necessary information concerning new terms, deadlines, payments etc. are regularly announced on the conference web-page (https://www.prague2020.cz/index.php). In the meantime, stay healthy!



CURRENT IFPS AFFILIATED SOCIETIES AND COUNCILLORS

The current list of the IFPS officers and IFPS councillors is provided below. The IFPS president (Jean Nicloas Haas), IFPS secretary-treasurer (James B. Riding), IFPS editor of *PALYNOS* (Encarni Montoya), and the IFPS Web-Master (vacant) should be informed of any errors or necessary changes. Please inform the IFPS Officers of possible website or email address changes.

IFPS Officers		Affiliation	Email
IFPS President	**Jean Nicolas Haas**	University of Innsbruck. Austria	Jean-Nicolas.Haas(at)uibk.ac.at
IFPS Past President	**Charles Wellman**	University of Sheffield, UK	C.Wellman(at)sheffield.ac.uk
IFPS Secretary-Treasurer & President-Elect	**James B. Riding**	British Geological Survey, UK	jbri(at)bgs.ac.uk
IFPS Editor of PALYNOS	**Encarni Montoya**	University of Liverpool, UK	encarnacionmontoya(at)gmail.com
IFPS Web-Master	**Benjamin Dietre**	University of Innsbruck. Austria	benjamin.dietre(at)uibk.ac.at
IFPS affiliated Societies		**Acronym & Website**	**Councillors**
American Association of Stratigraphic Palynologists – The Palynological Society		AASP – TPS http://www.palynology.org	Fabienne Marrret-Davies
Arbeitskreis für Paläobotanik und Palynologie		APP https://www.palaeontologische-gesellschaft.de/ueber-uns/arbeitskreise/ak-palaeobotanik-palynologie/	Martina Stebich
Arbeitskreis für Vegetationsgeschichte der Reinhold-Tüxen-Gesellschaft		AVRTG http://www.reinhold-tuexen-gesellschaft.de/	Hermann Behling
Asociación Latinoamericana de Paleobotánica y Palinología		ALPP http://www.ufrgs.br/alpp	Mercedes di Pasquo
Asociación de Palinólogos de Lengua Española		APLE https://aple.csic.es/	Pilar S. Testillano
Association des Palynologues de Langue Française		APLF https://assoaplf.wixsite.com/website	Marie-Pierre Ledru
Canadian Association of Palynologists		CAP https://capacp.wordpress.com/	Terri Lacourse
Collegium Palynologicum Scandinavicum		CPS www.palynology.info	Heikki Seppä
Commission Internationale de Microflore du Paléozoique		CIMP http://cimp.weebly.com/	Anthony Butcher
Gruppo di Palinologia della Società Botanica Italiana		GPSBI http://www.societabotanicaitaliana.it/gruppi/gruppo-palinologia-e-paleobotanica-gpp-sbi/21	Laura Sadori
International Association for Aerobiology		IAA https://sites.google.com/site/aerobiologyinternational/	Dorota Myszkowska
Linnean Society Palynology Specialist Group		LSPSG http://www.linnean.org/	Barry Lomax
Organisation of Czech and Slovak Palynologists		OCSP http://www.ocsp.eu/	Marianna Kováčová
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Palynologische Kring (The Netherlands)		PK http://www.palynologischekring.nl	Timme Donders
Palynologists and Plant Micropalaeontologists of Belgium		PPMB https://ininet.org/palynologists-and-plant-micropalaeontologists-of-belgium.html	Philippe Steemans
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Society for the Promotion of Palynological Research in Austria		AUTPAL http://www.autpal.at	Reinhard Zetter
The Micropalaeontological Society Palynology Group		TMS http://www.tmsoc.org/paly.htm	Manuel Vieira
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Philippine Palynological Society		PPS	

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