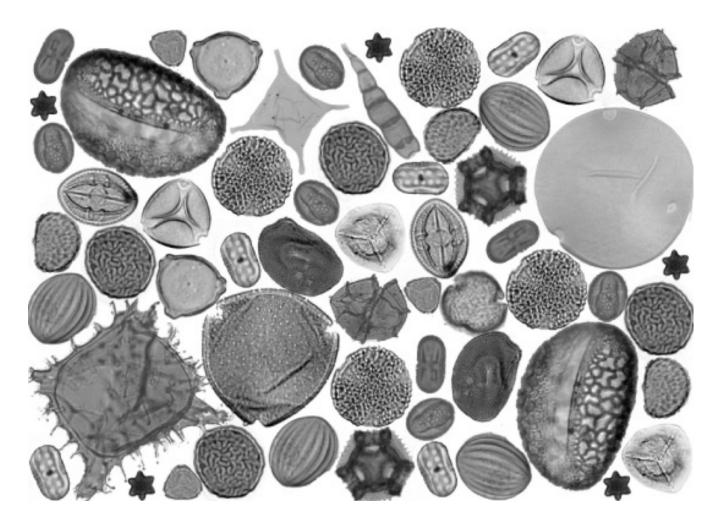


## AASP – The Palynological Society

Promoting the Scientific Understanding of Palynology since 1967



# NEWSLETTER

March 2021 Volume 54, Number 1

**Published Quarterly** 



## AASP – TPS NEWSLETTER

Published Quarterly by AASP – The Palynological Society

March 2021, Volume 54, Number 1

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The American Association of Stratigraphic Palynologists, Inc. - AASP – The Palynological Society - was established in 1967 by a group of 31 founding members to promote the science of palynology. Today AASP has a world-wide membership of about 800 and is run by an executive comprising an elected Board of Directors and subsidiary boards and committees. AASP welcomes new members.

The AASP Foundation publishes the journal Palynology (quarterly), the AASP Newsletter (quarterly), and the AASP Contributions Series (mostly monographs, issued irregularly), as well as several books and miscellaneous items. AASP organises an Annual Meeting which usually includes a field trip, a business luncheon, social events, and technical sessions where research results are presented on all aspects of palynology.

#### **AASP Scientific Medal recipients**

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Filipe Barreira, Laboratório Nacional de Energia e Geologia (LNEG), S. Mamede Infesta, Portugal

The AASP – TPS Newsletter is published four times annually. Members are encouraged to submit articles, "letters to the editor," technical notes, meetings reports, information about "members in the news," new websites and information about job openings. Every effort will be made to publish all information received from our membership. Contributions which include photographs should be submitted two weeks before the deadline. Deadline for submission for the next issue of the newsletter is MAY 15. All information should be sent by email. If possible, please illustrate your contribution with art, line drawings, eye-catching logos, black & white photos, colour photos, etc. We <u>DO</u> look forward to contributions from our members.

Volume 54, Number 1 Gilda Lopes, Editor

### A Message From Our President



Photo: Katrin Ruckwied, AASP-TPS President

Dear Colleagues and Friends,

I will keep this letter very short. The board had the mid-year meeting on February 13th, just before ice storm Uri hit the Southern United States. It is still affecting many people over here, and I got reminded to be grateful for simple but essential things like power and running water.

We are delighted to announce that the 53rd Annual Meeting will take place from August 9th to 13th 2021. For obvious reasons, this meeting will be held virtually, but I am hoping that we can still attract many participants due to very low registration fees! I would like to encourage all of you to join us, as session chairs, presenters, keynote speakers, or audience.

With vaccinations on their way, I am hopeful that we will soon be able to meet in person again. There is light at the end of the tunnel!

All the best and please stay healthy! Katrin



### Managing Editor's Report

At the time of writing this report, the first issue of the 2021 volume of *Palynology* has just been published online. Part one of Volume 45 comprises 13 items, all of which are listed below. The articles are 12 research papers plus a short editorial piece. This issue will be printed and distributed in late April/May, together with Part two. We hope you like this year's bright yellow cover with a fabulous pollen grain (see the website). Part two was recently finalised and we are now beginning to fill up Part three. However, there is plenty of space left in this year's volume, so submit your manuscript today!

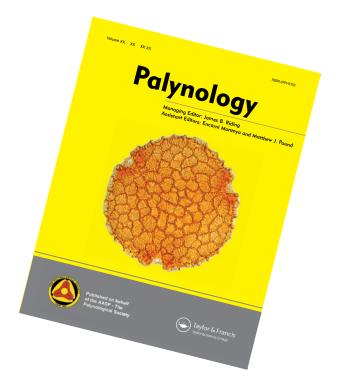
I would remind authors that I am presently working on a strategy to avoid what you might term a 'backlog' of papers which are in published online but not assigned to a volume and a final page range. More details to come on this, and sincere apologies for being so enigmatic!

You may have seen on the website a paper very recently placed online entitled A guide to preparation protocols in palynology. This is a relatively large paper which will be issued as a Supplement to Volume 45. We intend to print it separately and distribute it to all members who pay for paper copies in April/ May. The production and distribution costs of this Supplement have been paid by the author, and this extra issue does not impinge at all on this year's page budget. In effect therefore, it's a total freebie. Supplements are an excellent strategy for publishing large manuscripts, and I would encourage authors to consider this route.Publishingcostsaresurprisinglymodest, and one can order items such as open access. printing and distribution etc. from the menu. If you are considering a Supplement, contact me in the first instance.

Thank you for your support of the journal.

Jim Riding Managing Editor, AASP – The Palynological Society British Geological Survey Keyworth Nottingham NG12 5GG United Kingdom Tel: +44 (0)115 9363447 E-mail: jbri@bgs.ac.uk

1 February 2021



## The contents of *Palynology* Volume 45, Part 1

(online) (February 2021)

1. Riding, J.B. Editorial. The culture and ethos of *Palynology*. p. 1–2.

2. Gomes, B.T., Absy, M.L., D'Apolito, C., Jaramillo, C. and Almeida, R. Compositional and diversity comparisons between the palynological records of the Neogene (Solimões Formation) and Holocene sediments of western Amazonia. p. 3–14.

3. Ramezani, E., Talebi, T., Alizadeh, K., Shirvany, A., Hamzeh'ee, B. and Behling, H. Long-term persistence of steppe vegetation in the highlands of Arasbaran protected area, northwestern Iran, as inferred from a pollen record. p. 15–26.

4. lakovleva, A.I. and Heilmann-Clausen, C. Early and middle Eocene dinoflagellate cysts from the Aktulagay section, Kazakhstan. p. 27–57.

5. Worobiec, E., Widera, M., Worobiec, G. and Kurdziel, B. Middle Miocene palynoflora from the Adamów lignite deposit, central Poland. p. 59–71.

6. Alzer, F.C., Couto, R.S., Lopes, R.C., Gonçalves-Esteves, V. and Mendonça, C.B.F. Palynotaxonomy of Neotropical species of *Dioscorea* L (Dioscoreaceae). p. 73–86.

7. Lippi, M.M. and Giachi, G. Pollen content in a II century BC remedy from the Pozzino shipwreck (Tuscany, Italy): its sources and association with the ingredients. p. 87–93.

8. Li, W., Wang, Y., Liu, L., Niu, Y., Zhao, S., Zhang, S., Wang, Y. and Liao, K. Pollen morphology of selected apricot (*Prunus*) taxa. p. 95–102.

9. Gurdebeke, P.R., Mertens, K.N., Meyvisch, P., Bogus, K., Pospelova, V. and Louwye, S. *Hiddenocysta matsuokae* gen. nov. et sp. nov.

from the Holocene of Vancouver Island, British Columbia, Canada. p. 103–114.

10. Leite, F.P.R., da Silva-Caminha, S.A.F. and D'Apolito, C. New Neogene index pollen and spore taxa from the Solimões Basin (Western Amazonia), Brazil. p. 115–141.

11. Kumar, A. Palynology of the recent intertidal sediments of the southern Red Sea coast of Saudi Arabia. p. 143–163.

12. Dale, B. From hystrichospheres to dinoflagellate cysts: Scandinavian contributions to Evitt's pivotal recognition of fossil dinoflagellate cysts. p. 165–170.

13. Spina, A., Cirilli, S., Ghorbani, M., Rettori, R., Sorci, A. and Servais, T. Middle–late Cambrian acritarchs of the Zagros Basin, southwestern Iran. p. 171–186.



# How to access *Palynology* through your AASP-TPS membership

The following is a guide to help members understand how the AASP-TPS and Taylor & Francis work together to give you access to your membership subscriptions to our journal Palynology.

Access to the print and/or online issues of the journal are dependent on your membership levels, please check your membership level to understand whether you have access to Palynology and in which formats. Taylor & Francis have published Palynology for us since 2010 where the journal has gone from strength to strength increasing in size to four issues per annum.

Palynology subscriptions are for the calendar year, in line with your AASP-TPS membership. In January, all members will have their contact details sent to the publisher for them to set up the subscriptions for the year. This may lead to some downtime in early January.

Print copies will be sent out (currently in two mailings a year, issue 1 and 2 followed by 3 and 4). Your online access is governed by Taylor & Francis who should send out separate login credentials for their website – Your AASP-TPS login will not work for their website. If you do not receive any login details from T&F, then the quickest way to solve this is to contact them through their 'Help & contact' option on their website (red box on image below). They are usually very quick in solving access issues for us, but if you do have problems then don't hesitate to contact me, the AASP-TPS secretary (s.stukins@nhm.ac.uk).

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Photo: Screenshot from the bottom of the T&F *Palynology* web page.

# AASP-TPS is against racism!

AASP- The Palynological Society takes great pride in being home to a diverse group of early career and professional members internationally. We therefore aim to promote and embody an inclusive and equitable culture that is free from discrimination.



AASP - The Palynological Society | 9 | NEWSLETTER March 2021

### Update on the AASP Foundation



Photos: AASP Foundation Board of Trustees. From left to right: Thomas D. Demchuk, David Pocknall, Rob Fensome, and Jen O'Keefe.

By Thomas D. Demchuk

Trustee and Chair

It is my pleasure to announce some additional changes to the AASP Foundation Board of Trustees. After 22 years, Judi Lentin has decided to resign her position as Foundation Editor. Judi became Editor in 1999, joining Norm Norton, Bob Clarke, and Vaughn Bryant who formed the backbone of the Foundation for decades. Norm Norton resigned as Chair in 2016, with Bob Clarke and Vaughn Bryant resigning over the past year. We thank Judi for her dedicated and exemplary service to the Foundation.

We mourn the loss of Vaughn with palynologists worldwide. His decades of service to the Foundation are rivaled only by Bob's.

It is my extreme pleasure to announce that Rob Fensome (Geological Survey of Canada) will become the new AASP Foundation Trustee and Editor, taking the position immediately. Many of you will be familiar with Rob as author of numerous publications on dinoflagellate stratigraphy and taxonomy, as well as being senior author of Contribution Series No. 50, "The Lentin and Williams Index of Fossil

Dinoflagellates 2019 Edition" and being a coauthor of the online Dinoflaj3 database. Rob will bring editorial experience as long-time co-editor of the journal Atlantic Geology and some new thoughts on digital publishing, moving the AASP Foundation and associated publications into the 21st Century. Along with its Contribution Series, the AASP Foundation also published monographs, textbooks and other miscellaneous publications: these are usually larger scientific compilations that do not fit the manuscript format for Palynology.

You will recall that very recently, Jen O'Keefe and David Pocknall also joined the AASP Foundation Board of Trustees: Jen as Trustee, Assistant Editor and Publication Production Officer, and David as Trustee and Secretary. All publications, Foundation records and bank accounts now reside safely in Houston. The Trustees will be holding meetings shortly to formulate a path forward regarding publications, and other Foundation initiatives.

Regarding upcoming Contribution Series, Jen is putting final touches on an update by Jim Riding to his No. 46 "A Compilation and Review of the Literature on Triassic, Jurassic and Earliest Cretaceous Dinoflagellate Cysts". This publication will become No. 46A and will be available soon. We kindly ask the general AASP audience if they have any ideas for additional Contribution Series to please get in touch with Rob, Jen or myself.

Finally I would like to thank Reed Wicander for his recent, generous contribution to the AASP Foundation Century Club. Thank you Reed for thinking about the Foundation. You will see

information for the Century Club elsewhere in this Newsletter. For our American members, please note that the Foundation is a 501c3 tax-free organization and all donations are taxdeductible.

I look forward to the future of the AASP Foundation working alongside my new Trustees.

Regards,

Thomas Demchuk

# Candidates to the Board of Directors 2021



Stephen Stukins Secretary

Introducing the 2021 candidates for the board of directors in the following positions: Secretary, Managing Editor, Treasurer, Director-at-Large.

After studying a BSc in Geological Sciences at University of Leeds I undertook the MSc in Micropalaeontology at University College London in '05-'06. It was at UCL I first discovered palynology and went on to use it in my final project studying the onset of the Toarcian OAE from the Yorkshire coast under the supervision of Susanne Feist-Burkhardt and Andrew Henderson. I then ventured on to the University of Aberdeen for my PhD, supervised by David Jolley, Duncan McIlroy (Memorial University of Newfoundland) and Adrian Hartley. This research project, funded by Statoil (UK), took me to Argentina where I studied the palynology and sedimentology of the Middle Jurassic of the Neuquén Basin from its stunning outcrops. Following my doctorate I worked for PetroStrat Ltd in Conwy, North Wales, where I trained and worked on Mesozoic sections from West Africa and various sectors of the North Sea. Then the opportunity arose to join the Natural History Museum, London, where I have been since January 2012.

During the last nine years at the NHM, I have been privileged to be involved in a diverse range of projects from teaching on MSc courses at Imperial College and Royal Holloway universities; hosting student projects for the MSc at the University of Birmingham; researching using sections of the North Sea from our former British Petroleum Collection; hosting two TMS conferences; co-supervising PhD students on projects ranging from Devonian palynology to Cenozoic planktonic foraminifera (for my sins!), amongst many many other projects. However, for the last five years, being the secretary of this society has been a major privilege and gained me access to more palynology and palynologists than I could have ever imagined! I would be delighted to continue to work for you and the society. Currently, he is working as an interpreter and stratigrapher in the Americas New Opportunities Team. Other interests and passions are music, bicycle riding, hiking, gardening, and botany.



Vladimir Torres Treasurer



James Riding Managing Editor

Vladimir Torres is a geologist with a deep interest in micropaleontology, paleoecology, biostratigraphy, sequence stratigraphy, seismic stratratigraphy, and source rock prediction. Vladimir studied geology at the Universidad Nacional de Colombia in Bogotá, where he began his training in palynology and graduated in 1996. He worked as a field geologist between 1996 and 2000, and followed his Ph.D. in The Netherlands (University of Amsterdam) between 2001 and 2006.

In 2005 he joined the biostratigraphy team of the Colombian National Oil Company, Ecopetrol, where he worked in collaboration with the Smithsonian Tropical Research Institute to develop the Cenozoic palynostratigraphy of the Llanos Basin in eastern Colombia. In addition, he collaborated with the Universidad de Salamanca, to create the first integrated biostratigraphy project to understand the marine sequences of the Colombian Caribbean. In 2009, Vladimir joined in the Biostratigraphy Team of ExxonMobil as a specialist, where he has broadened his palynology skills.

During the first 6 years of his career at Exxon-Mobil, he has conducted palynological analysis and integrated biostratigraphic data from different sedimentary basins around the World. James B. Riding is a palynologist with the British Geological Survey (BGS), based in Nottingham, UK, and specializing on the Mesozoic and Cenozoic. After studying geology at the University of Leicester, Jim persued an interest in palynology which developed as an undergraduate. This started with the famous MSc course in palynology at the University of Sheffield directed by Roger Neves and the late Charles Downie. He left Sheffield for BGS. which was then known as the Institute of Geological Sciences, joining the Palaeontological Department run by the legendary Carboniferous palaeontologist and geologist W.H.C. (Bill) Ramsbottom in the Northern England office, based in Leeds, West Yorkshire. Here, he worked closely with Ron Woollam on the Mesozoic palynology of onshore and offshore UK; much of the work in those days was on the North Sea. The Leeds office was closed, and Jim and colleagues relocated to the BGS headquarters at Keyworth, immediately south of Nottingham. He was awarded a PhD by the University of Sheffield for a thesis on the Jurassic dinoflagellate cyst floras of northern and eastern England. His current palynological interests are wide-ranging and include the Mesozoic-Cenozoic palynology of the world (especially Europe, Australasia, Antarctica, west Africa, the Americas, Russia and the Middle East), paleoenvironmental palynology, palynomorph floral provinces, forensic palynology, preparation techniques, the history of palynology and the morphology, systematics and taxonomy of dinoflagellate cysts. The British Antarctic Survey, a sister organisation to BGS, have used Jim as a consultant palynologist for many years, and he visited the Antarctic Peninsula for fieldwork during the Austral Summers of 1989 and 2006.

The most recent field season was spent on Seymour Island. The European Union has recently funded two collaborative projects involving Jim on research into the Jurassic palynology of Russia and southern Europe. Jim undertook a one-year secondment in 1999-2000 to the Australian Geological Survey Organisation (now Geoscience Australia), Canberra, Australia where he worked on the taxonomy of Australian Jurassic dinoflagellate cysts with Robin Helby and Clinton Foster. The work emanating from this was published in 2001 as Memoir 24 of the Association of Australasian Palaeontologists. Jim was awarded a DSc by the University of Leicester in 2003. He served as a Director-at-Large of AASP between 1999 and 2001, was President in 2003, and became Managing Editor in 2004. He has previously served as Secretary and Treasurer of The Micropalaeontological Society (TMS). Jim is currently the Secretary-Treasurer of the International Federation of Palynological Societies (IFPS).

gained my Masters in biology from Freie Universität Berlin in 2016, based on a palynological study of the Carnian as part of a pilot project on carbon capture and storage. My interest in Late Triassic palynology continued through my PhD research at Freie Universität Berlin, where my work has sought to integrate my botanical/ ecological perspectives with palaeontology. I am currently in the process of finalizing my PhD and transitioning to a Post-Doc position at the Leibniz University Hannover, where my research will focus on Early Cretaceous palynology of Portugal; I am very excited to develop my palynological expertise by studying a completely new flora and region. As former Student Director-at-Large of the AASP-TPS, I was provided with the opportunity to connect with the society and many of you fellow palynologists. Now as I enter the next stage in my research career, I would be very happy if I could continue to serve the AASP-TPS as Director-at-Large, to stay engaged with the society, and contribute to the development new ideas and possibilities to help our discipline adapt to our changing scientific environment.



Jan Hennissen Director-at-Large

I am a palynologist and Biostratigraphy and Palaeontology Laboratory Manager at The British Geological Survey. I specialise in palynofacies analysis, Carboniferous miospores and the application of ecological statistical techniques on palynological datasets.

My career in palynology started 15 (gulp....) years ago in 2006 when I completed an MSc at Ghent University in the Research Unit Palaeontology and Palaeo-environments with Thijs Vandenbroucke, Jacques Verniers and Ste-



Julia Gravendyck

Director-at-Large

I am a paleopalynologist and botanist at the Freie Universität Berlin (Germany), where my research interests include palaeoecology, vegetation dynamics, teratology and taxonomy. I phen Louwye. I studied chitinozoans from the historical Hirnant type section and was able to conclude that the Hirnant Limestone was of Hirnantian age. After this resounding success, I moved to the Université de Liège (Wallonia, Belgium) where I completed a Master of Applied Science in micropalaeontology and palaeobotany with a thesis focused on the chitinozoan assemblages in the Upper Ordovician auxiliary GSSP of Dawangou (China) again with Thijs and Jacques.

In 2008, I crossed the Atlantic and started a PhD at the University of Toronto where I focused on dinoflagellate cysts of the Pliocene and Pleistocene in a collection of North Atlantic IODP cores under the supervision of Martin Head. Here I applied statistics on combined geochemical-palynological datasets to investigate the impact of seasonality changes on the palynoflora during the onset of the northern hemisphere glaciation.

In 2013, I started working at the BGS first as a PDRA, then as a full-time researcher and now as a palynologist and laboratory manager. I have been an active AASP member since I joined BGS. I had the good fortune to co-host the 50th AASP Annual meeting in 2017 together with my colleague Jim Riding. In 2020 I acted as a member of the Awards Committee and I hope to be able to contribute more to AASP-The Palynological Society as a Director at Large in the coming two years.



Patrick Moss Director-at-Large

Patrick Moss is the current Deputy Head of School and Professor at the School of Earth and Environmental Sciences, The University of Queensland. Patrick has worked as a palynologist for over 25 years, commencing with an Honours degree at the University of Melbourne (supervised by Ian Thomas) and then undertaking his PhD at Monash University (supervised by Peter Kershaw). Post PhD (2000 to 2004), Patrick undertook visiting assistant professor positions at the University of Iowa and the University of Wisconsin-Madison, which introduced him to North American palynology, and he commenced his position at the University of Queensland in July 2004.

Patrick's primary focus is Quaternary palynology, with an emphasis on using pollen and charcoal analysis to examine the relative impacts of people and climate on the late Quaternary landscape of Australia. In particular, he has utilised marine palynology to investigate environmental change in the Wet Tropics of northeast Australia for the last 500,000 vears, examined peatlands across southeast Queensland, Tasmania and South East Asia, as well as examining pollen from archaeological deposits across Australia. Patrick has also undertaken research into the Eocene environments of the Okanagan Highlands of British Columbia, Canada and has also worked on Australian Neogene deposits. His current research is focussed on marine palynology in Australia (Western Australia, Tasmania and Queensland) and examining peatlands across eastern Australia primarily through pollen and charcoal analysis.

Through his position at the University of Queensland, Patrick has been very fortunate in incorporating palynology in teaching, forming a key component of upper level undergraduate and master coursework subjects and encouraging the next generation of Australian palynologists. He has also been very active in terms of PhD supervision, advising several palynological focussed projects, ranging from Quaternary palaeoecological projects in Australia, New Zealand and South East Asia to Permian/ Triassic projects based in western Queensland. He has also utilised pollen and charcoal

analysis in management projects becoming an expert on the Patterned Fens of the giant sand masses of South East Queensland, with palaeoecological data forming an important component of understanding these globally unique systems. Patrick has been a member of AASP since 2000 and sees the Director-at-Large position as an opportunity to highlight palynology across Oceania and South East Asia, as well as emphasising its importance to environmental managers and archaeologists (some of his key collaborators). In addition, he is very appreciative of the important service that the society provides to the discipline and would be very honoured in serving the society to progress its key objectives.



Vann Smith Director-at-Large

Vann Smith is a geology instructor and postdoctoral research associate at Louisiana State University. He received his BS in Geology and Geophysics from Louisiana State University (LSU) in 2011, his MS in Earth and Environmental Sciences from Tulane University in 2015, and his PhD in Geology and Geophysics from LSU in 2020. He presented his doctoral research at the 52nd AASP-TPS Meeting in Ghent, Belgium, where he had the pleasure of meeting many AASP members in person.

Vann's research interests have evolved over time. His MS research involved the morphometric identification of Carcharhinus shark teeth, with applications to computer-aided

identification of fossil shark teeth. After his graduation from Tulane University, he worked as a nannofossil biostratigrapher at Paleo Data Inc. in New Orleans, mainly analyzing Cenozoic age drill cuttings from the Gulf of Mexico, both in the office and on offshore oil rigs. He began his PhD studies in 2017 with Dr. Sophie Warny as his advisor. His doctoral research focused on the Paleocene-Eocene palynology of the International Ocean Discovery Program (IODP) Expedition 364 Site M0077 core in the Chicxulub impact crater, in collaboration with Dr. Vivi Vajda, Dr. Johan Vellekoop, and many other IODP scientists. This research resulted in four publications with Vann as lead author, including two papers published in the journal Palynology. Two new genera and five new angiosperm pollen species from the Site M0077 core have been formally described and published.

Since his graduation, Vann has continued his association with LSU as a part-time postdoctoral research associate, starting in the fall of 2020. Among other responsibilities, he is currently helping Dr. Warny's graduate students with the identification of Paleogene pollen and spores from the Gulf of Mexico. In January 2021, he was hired as a geology instructor at LSU. He is honored to be nominated as Director-at-Large for AASP-TPS and looks forward to working with the society if he is elected. He is particularly interested in helping undergraduate and graduate students become more engaged with AASP-TPS and working on recruiting issues.

Born in Flint, Michigan, Vann has spent most of his adult life in southeastern Louisiana. He is the proud father of Felix and Iris Smith, and is married to Stephanie Welch, a geology instructor at Southeastern Louisiana University.

### AASP – TPS 50th Anniversary Jewelry Collection

#### Exclusive, Custom-made 50th Anniversary Jewelry Limited-Edition and availability





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Special thanks to John Firth and Ingrid Romero for palynomorph images.

**Celebrate the 50th anniversary of AASP – The Palynological Society with a beautiful, sterling silver palynomorph necklace.** The Society board worked with jeweler and designer, 'Science-inspired jewelry', to create these one-of-a-kind, unique necklaces in honor of our silver anniversary. There are a limited number available of two designs, a dinoflagellate cyst of *Diphyes recurvatum* and a pollen grain of *Macrolobium multijugum*. They are sterling silver and each measure c.3/4" diameter.

Each necklace comes with a commemorative information card that includes a picture and description of the palynomorph. **The society is selling them for \$150.00 (for members) and \$170.00 (for non-members).** This is a wonderful way to support AASP and is a great conversation starter!

Payment can be made to the AASP Paypal account, thomasdd98@yahoo.com. Necklaces can be mailed at your request.

### AASP – TPS Awards Application Deadlines

#### Marie Thomas

Awards Committee Chair

AASP-The Palynological Society has several awards that recognize outstanding service to the Society or to the discipline of palynology.

The basic nomination procedure is similar for most awards and can be found at <u>https://palynology.org/award-procedures/</u>. A complete list of previous winners can be found on the third page of this newsletter.

The deadline for submission of society awards nominations has been postponed from **March 1 to April 30, 2021**.

#### **Board of Directors Award**

This award is given by the Board of Directors to individuals who have made extensive and long-standing contributions to AASP-TPS. It is given infrequently to AASP-TPS members for a lifetime of service to the society. The nomination of candidates and decisions are made within the board.

#### Medal for Scientific Excellence

This is the society's highest award and has primarily been bestowed upon individuals who have made fundamental contributions to the development of the discipline of palynology. Recipients should have a substantial research record in the field. The medal has been awarded thirteen times in the history of the Society, most recently to David Batten in 2018.

#### Medal for Scientific Merit and Outstanding Promise

This newly established award recognizes in-

dividuals in their mid-career who have made important contributions to the science of palynology, and who show the promise of continued excellence in the discipline. Typically, nominees will have no more than 15 years' experience beyond their MSc or PhD graduation (excluding time spent in industry or on leave).

#### **Distinguished Service Award**

This award recognizes individuals who have generously supported the AASP-TPS with their work and resources over several years, and whose efforts have advanced the Society. Typically, recipients have held society office, participated in committees, or dealt with publications or meetings. There have been twenty recipients of this award, most recently Martin Farley in 2019.

#### Medal for Excellence in Education

This medal recognizes leaders in palynological education. Nominees are expected to have considerable experience and accomplishment in aspects of academic education involving palynology. The medal has been awarded five times, most recently to Geoff Clayton in 2016.

#### **Honorary Life Membership**

This is the oldest AASP–TPS award, with the first awards dating to 1975. This award is either bestowed upon individuals who have made a fundamental contribution to the discipline of palynology, or to people who have given devoted service to the AASP–TPS (or both). These may be persons who are not members of the society. Honorary Life Membership has been awarded to seventeen individuals, most recently to George Hart in 2020.

#### AASP-TPS Student Research Awards, 2021

#### **CALL FOR APPLICATIONS**

AASP-The Palynological Society is pleased to announce its program of Student Research Awards. For 2021, there will be two awards of \$3000 (US) each, to support research in any area of palynology. Student Research Awards are to be used for costs directly connected to carrying out research, such as fieldwork and laboratory expenses, but not for travel expenses to attend a meeting. Typically, these awards are provided to students in the preliminary stages of their doctoral research, but MSc. and advanced undergraduate students may also apply.

Basis of awards: The qualification of the student, the novelty and imagination of the proposed project, and the likelihood of significant contribution to the science of palynology are factors that will be weighed in the selection process.

#### **Application procedure:**

Please download the application form: <u>https://palynology.org/student-research-grants/</u>

**Part A** of this form is to be completed by the student, and **Part B** by the student's faculty supervisor. Applications **must** be accompanied by a photograph of the student (.jpeg format) for publication in the society's newsletter.

Additional material will not be considered.

<u>The applicant's supervisor must submit both</u> <u>parts A and B</u> of the form to the Awards Committee Chair, either as Word document or as a PDF:

> Dr. Marie L. Thomas AASP–TPS Awards Committee Chair <u>aaspawards@gmail.com</u>

Please ensure that you have completed both parts A and B of this application form.

The deadline for applications is **April 30th**, **2021**. Late or incomplete applications, as well as those that exceed the stated word limits in sections A or B will be disqualified. As per society awards policy only students who are registered AASP-TPS members are eligible to apply (https://palynology.org/join/#join). Applications from non-members will not be accepted.

#### **Undergraduate Student Awards**

In order to support the teaching of palynology at the undergraduate level, and to encourage and reward student achievement, AASP–The Palynological Society offers the Undergraduate Student Award. Each award consists of one year's free membership to the society, which includes digital access to the society's journal *Palynology*, discounted registration fees at society meetings, and eligibility for society awards.

Undergraduate Student Awards are made annually to students nominated by faculty members teaching courses with significant palynological content. One student recipient, with meritorious achievement in some aspect of the course, can be nominated per year, per institution.

The following institutions have approved courses from which undergraduate students may be selected: University of Southampton, Louisiana State University, University of Tennessee-Knoxville, University of Portsmouth and Morehead State University.

Additionally, course instructors who are members in good standing of AASP–TPS, and who teach an appropriate course, may nominate their course using the registration form below. This should be cut-and-pasted into a word document and sent to the Awards Committee Chair at: aaspawards@gmail.com

Upon course approval, instructors may nominate a student to receive the award (at any time of the year) by sending the name, institutional address, and email address of the recipient to the Awards Committee Chair (<u>aaspawards@</u> <u>gmail.com</u>) and to the Society Secretary (<u>s.stukins@nhm.ac.uk</u>).

Faculty must send the name of the winner, a paragraph about their achievements, and a photograph to the Newsletter Editor (<u>aaspnews@gmail.com</u>) for inclusion in the March (awards between July and December) or June newsletter (awards between January and June).

#### Undergraduate Student Award, Course Registration Form

Nominating faculty member:

University/Higher Education Institution:

Course Name:

Course Description and level:

Average number of students registered in the course annually:

Number of hours of palynological instruction: Criteria used to determine the winning student: Date:

### News from...

#### USA

By Ingrid Romero

We have some good news from several members of the society. First, we would like to congratulate Jen O'Keefe and Matthew Pound for their funded research **Fungi in a Warmer World (FiaWW)**. This project will provide the first global data set of fossil fungal biodiversity and ecosystem services during the Miocene, a geological interval of time characterized by a gradual warming event. Learning more about how fungi reacted to higher global temperatures in the past will allow us to predict what impact rises in the current global temperature could have on present day species.

For the next three years, this project will be funded by the National Science Foundation (NSF) and the Natural Environment Research Council (NERC), in which Jen (Principal Investigator) Matthew and (Principal Investigator) work alongside will with collaborators Sophie Warny and Noelia Nuñez Otaño. This interdisciplinary team will examine microfossils from around the world, including the United States, South America, Malaysia, China, Antarctica, South Africa, Australia and Slovakia.



Photos: Jen O'Keefe and Matthew Pound tried out the "big chairs" at the Kentucky Horse Park in Lexington, KY in April 2019.

We would also like to congratulate Francisca Oboh-Ikuenobe for her new position as associate dean for academic affairs in the College of Engineering and Computing at Missouri S&T. She has been a professor in Missouri S&T since 1991, and she was honored with an outstanding teaching award in 2020.

She is known for her passion for both undergraduate and graduate education. She is also known for her active participation in geosciences, such as: elected fellow of the American Association for Advancement of Science (AAAS); past member-at-large on the Geological Society of America Diversity in the Geosciences Committee; director of the Association for Women Geoscientist Foundation; and past president of the AASP-TPS.



Photo: Francisca Oboh-Ikuenobe.

UK

#### By Carlos Santos

Carlos Santos is our newest UK correspondent. Learn a little more about him below:



Photo: Carlos Santos, the new UK newsletter correspondent.

My name is Carlos Santos, and I am a palynologist with 15 years in the O&G industry. My research interests involve using Palynology in Biostratigraphy, Chronostratigraphy, Sequence Stratigraphy, Palaeoenvironmental reconstructions and Palaeoclimatology in projects at both a regional and a reservoir scale.

My interest in Palynology started during my Bachelor of Science in Geology at Universidad Industrial de Santander (Colombia), where I graduated in 2005. I was looking for opportunities to develop my senior thesis and always had an interest in Paleontology but had not found a clear path to get started. I met Dr. Carlos Jaramillo, by the time the head of the Biostratigraphy Team in the Colombian Petroleum Institute, had a conversation about Palynology and I got immediately excited about the possibilities. During my senior thesis titled "Marine influence during the Late Eocene in Eastern and South-Eastern, Colombia" (Advisor: Dr. Carlos Jaramillo) I used Palynology to study the Late Eocene Mirador Formation to build a paleogeographic reconstruction of Northern South America using palynological and sedimentological data.

In 2005, after graduating, I joint the Biostratigraphy team at the Colombian Petroleum Institute – Ecopetrol, where I worked as a Palynologist (2005 – 2010) conducting palynological analysis (dinoflagellate cysts, pollen, and spores) on the Late Cretaceous -Pliocene sequences from several basins in Colombia.

Between 2010 - 2012, I did my master's degree in Geology and Geophysics at Louisiana State University (Baton Rouge, Louisiana, USA). I studied the "Palynostratigraphy of the Umir Formation, Middle Magdalena Valley Basin (MMVB), Colombia" (Advisor: Dr. Sophie Warny) examining the dinoflagellate cysts and sporomorphs assemblages of the Late Cretaceous Umir Formation to build a palynostratigraphic framework and understand depositional paleoenvironments.

After graduating in 2012, I joint BP (2012 2020) working as a Palynologist / \_ Biostratigrapher providing support to teams across the globe on diverse projects through O&G activities including exploration and reservoir development. This position gave me the opportunity to work across a wide range of basins, stratigraphic intervals and palaeoenvironmental settings including Triassic – Miocene sequences from the North Sea and Norway; Lower Cretaceous from Iraq (Rumaila); the Pliocene from ACG oilfield and Eocene - Pliocene from Azerbaijan and Georgia; the Triassic - Cretaceous from the North West Shelf (Browse, Exmouth and

Bonaparte basins) and South Margin (Bight Basin) in Australia; the Upper Paleozoic from Jordan; Mozambique; and the Cretaceous – Cenozoic from West Africa (Angola, Ivory Coast and Ghana).

In 2021, I joint Ellington Geological Services where I am currently working as Senior Palynologist.

### In Memoriam...

Vaughn M. Bryant, Jr. 1940–2021

#### A life of science and service

By Jen O'Keefe – Morehead State University Angelina Perrotti – University of Wisconsin-Madison & Brown University Andrew Laurence – U.S. Customs and Border Protection Katelyn McDonough – Texas A&M University Sophie Warny – CENEX, Louisiana State University

Photo: Vaughn M. Bryant, Jr. (Photo from Katelyn McDonough)

Vaughn Motley Bryant, Jr. died 30 January 2021 following a six-year battle with cancer. He was born 5 October 1940 to Marjorie Price Trafford and Vaughn Bryant, Sr. in Dallas, TX, but spent his early years in South America and subsequently in several places in the southern United States and Alaska before entering the University of Texas at Austin in 1960, earning a BA in geography (1964), a MA in Anthropology (1966), and a PhD in Botany (1969), with a dissertation on Quaternary Palynology and Paleoecology of Central Texas. He was a "Lifelong Longhorn," exemplified by the bright orange shirts he often wore as a foil to the Aggie maroon, much to the dismay of some students and colleagues, and his personification of the Longhorn creed "What Starts here Changes the World."

#### And Change the World he did!

Vaughn became fascinated with what pollen could reveal about ancient diets as a MA student but was disinterested in excavating an archaeological site as part of a PhD in Archaeology, so cut a deal with the Botany department to do a year's worth of graduatelevel botany courses, earning at least a B average, and to teach introductory botany labs for them on Thursdays and Fridays. Why Thursdays and Fridays? Because with a wife and two kids to support, he needed the job, but he didn't know the material so would sit in on labs earlier in the week to learn it before he taught it. This can-do attitude with an emphasis on self-training not only earned him all A's for the courses but laid the foundation for many of the directions he took as a scientist.

Vaughn joined the department of Anthropology at Washington State University in Pullman, Washington in 1969 as an assistant professor and director of the palynology laboratory. It was there he trained his first two doctoral students, but the economic downturn of 1970 took a toll, and by 1971, Vaughn was struggling to support the lab and his students. When things were looking really bleak, as Vaughn always told the story, Dr. David Maxwell, then the dean of the College of Liberal Arts at Texas A&M, called on Bill Elsik's recommendation and recruited him to join the newly established Department of Sociology and Anthropology. The call and subsequent visit to Texas A&M included the two magic words: Texas, and funding. In summer of 1971, Vaughn moved his young family back to Texas and became the first assistant professor of anthropology, where in addition to Palynology, he taught increasingly popular courses in Anthropology: Introduction to Anthropology and Peoples and Cultures of the World. The popularity of these courses was such that by 1975, there was enough student demand to establish a program of Anthropology, with Vaughn as head, and in 1980 the stand-alone department of Anthropology was established, with Vaughn as the first chairperson. He was to remain chair for the next 19 years, and nurture both its growth into the PhD-granting highly-respected entity it is today, AND his own scientific career in anthropology/archaeology and beyond. For decades of excellence in education, Vaughn was awarded the AASP Medal for Distinguished Teaching in 2013.



Photo: At the microscope soon after the TAMU Palynology Lab was established. (image from Texas A&M).

This trajectory was not without some hiccups. The first of which was scientific and came in 1975 when Vaughn was approached by the USDA to assist them in determining the provenance and floral sources of honey purchased under the US Farm Loan Act of 1916. He was seen as the USDA's last hope, as so many of the other academic palynologists in the US had turned them down. Vaughn had never looked at pollen in honey before but sat down and taught himself how to do it. In his own words, "Looking back, I now realize that I was totally naïve about the diversity of pollen and nectar sources available for honey bees within the United States...After looking at a few of the honey samples I wanted to send them all back to the USDA telling them it was an

impossible task...my pride prevented me from giving up and the challenge to do something nobody else in the U.S. was willing to do, made me willing to solve my pollen identification problem." Thus, establishing himself as the only active melissopalynologist in the USA for decades.



Photo: Processing honey in 2017 with a long line of honey bears looking on. (Photo from Jen O'Keefe)

The second of which was political, which came in 1979 with the publication of the article "Anthropologist Vaughn Bryant Lost 30 Pounds (but not his health) Eating what the Cave Dwellers Ate" in the 19 February 1979 issue of People Magazine. The message was simple: eat the way our ancestors did - plenty of fresh fruit, vegetables, and seeds, supplemented by lean meat. It was the first research-based version of what we all know as the Paleo diet. This in and of itself was not a problem, nor was mention of suitcases of crap intercepted by customs following a dig in South America, rather, it was Vaughn's choice of attire for the accompanying photo. Texas A&M in the 70's did not welcome their head of Anthropology appearing in a state of relative undress in a cheetah-skin caveman outfit!

What the crap, you ask? Vaughn had begun studying pollen and larger plant remains from

human coprolites in the late 1960's during his MS work - remember that interest in paleodiets? By 1979 he'd published six papers on studies of coprolites from the southwestern United States, Mexico, and France. In 1971, just after he joined the faculty at Texas A&M, while on the way back from a dig at Ayacucho, Peru, with five suitcases of human coprolites. some collected by Eric Callen, some by Bryant himself, he was stopped by customs officers inspecting his archaeological permit. When asked what he had, he flippantly responded "Just a lot of crap." It took some fast talking, but, both Vaughn and the crap were soon on the way to Texas A&M...thanks to the fact that one of the agents was an Aggie (a graduate of Texas A&M). None of Vaughn's students will forget the "Faugh, put that in the hood," and the vehement replies of "It is!" on the days coprolites were being rehydrated and pollen, seeds, and other plant fragments were extracted. Vaughn was among those who pioneered systematic study of coprolites, and his former students Glenna Dean and Karl Reinhardt remain leaders in the field.

The next major challenge came in the early 1980's when, realizing that melissopalynology had uniquely prepared him to solve crimes using palynology, and the lab was in dire need of additional funding, Vaughn began pitching the young discipline of "forensic palynology" at various law enforcement agencies and conferences around the country. Following a presentation at the Sheriff's Association of Texas in El Paso, the Nolan County Sheriff contacted him about an unidentified body. From painstaking study of pollen from evidence provided by the sheriff, Vaughn suggested the victim originated near Kansas City. This was his first big forensic case; from here, his reputation grew and steady work helped fund the lab and Vaughn's graduate students' research, as well as leading to lifelong collaborations and friendships with Patricia Wiltshire and Dallas Mildenhall.



Photo: Training students to collect pollen from forensic evidence. (Photo from Katelyn McDonough)

After 9/11, demand for his forensics expertise increased exponentially, and he became such a figure at the CIA offices at Langley that agents knew him by name. Work for the CIA led to work with Homeland Security and the FBI, as well as independent forensics contractors. Vaughn used to liken the forensics work to solving puzzles. He loved the thrill of the chase and finding an answer, but he didn't need to know what happened next. The sheer demand necessitated the search for a second set of hands, as the only other forensic palynologist in the United States, Edward A. Stanley, was, by this time, long retired from the New York Citv Police Department Crime Lab. His search lead him to train Andrew Laurence, who went on to become the founding forensic palynologist with U.S. Customs and Border Protection, a lab which was catapulted into public view through their work on the 2015 Baby Doe case from Boston, MA, work assisted by then doctoral student Shannon Ferguson of LSU. In only six short years, this lab has grown to three full-time analysts with the addition of Katie Bailey, whom Vaughn also trained, and forensic palynology is beginning to gain the prominence it enjoys in other countries.



Photo: The father of Forensic Palynology in the United States with (clockwise from Vaughn) Sophie Warny, Shannon Ferguson, and Fred Rich in 2016. (Photo from Sophie Warny)

Vaughn was not just a consummate teacher and scientist. He was also among the most visible servants of palynology in the United States. After joining AASP in 1971, ahead of the meeting in Tucson, AZ, Vaughn rapidly rose to managing editor and newsletter editor in 1976. By mid-1979, he passed the task of newsletter editor to Doug Nichols to concentrate on Palynology for a further four years. In 1980, Vaughn became the first to propose and present a poster at AASP meetings, setting the stage for decades of successful poster sessions. The Vaughn Bryant Best Student Poster Award was named in his honor. He also spearheaded decades of AASP golf tournaments, even if it was only David Pocknall joining him on the green. In mid-1983, he was elected president elect, becoming president from 1984-85. Following his presidency, he chaired the public relations committee and organized the 5th annual meeting in College Station. From 1988-2000 he was an INQUA representative from the SAA. In 1990, Vaughn was elected secretary of the AASP Foundation , a role he held until his resignation in September of 2020 – an outstanding thirty-year commitment.



Photo: Bob Clarke and Vaughn during AASP Foundation Publications Inventory in January 2000. (Photo from Jen O'Keefe)

From 1992-1996 and 1998-2000 he also served as AASP's IFPS Councilor. During this time he was involved with a further three annual meetings, including the very successful 1996 IX International Palynological Congress in Houston, TX and the selection committee for the first director of CENEX at Louisiana State University. For this outstanding level of service, he earned the AASP Distinguished Service Award in 1999 and Honorary Membership in 2003. He was, for many years, AASP's official photographer – and appears at the front of nearly every annual meeting picture since the mid-1970's.

In September 2014, Vaughn's health suddenly threatened to derail all he had built - niggling issues suggested prostate cancer, but busy with melissopalynology, forensics cases, and the largest group of students he'd had in decades, Vaughn put off biopsy until April, when it was found that his unusually aggressive cancer had spread to his lymph nodes and bones. He approached cancer treatment in much the same way he'd approached so many challenges before, with that can-do positive attitude and huge amounts of work as an anodyne and distraction from worry. If anything, his public outreach on multiple fronts – as an archaeologist, melissopalynologist, forensic palynologist, and cancer survivor, went into overdrive, as shown by articles in Bee Culture, Dig into History Magazine, local newspapers and TV stations, and forensics trade journals. He made the national news for bringing a microscope into his isolation chamber during treatment and continuing both research and teaching from the hospital.



Photo: Even a month's isolation at MD Anderson couldn't stop the delight in science and his students! (Photo from Angelina Perrotti)

Even when diagnosis of acute myeloid leukemia derailed his cancer remission and launched an even stronger and more difficult fight, Vaughn maintained a public image of energy and positivity, writing a very upbeat article for MD Anderson's internal magazine in December of 2020. During all of these challenges, Vaughn arrived at his lab every morning with a big smile and his "Bee Happy" mug of coffee to check on his students and ensure that the many samples coming from over the world continued to be processed and analyzed for pollen. Vaughn and his lab never ceased to buzz with new research and excitement.

For his sustained contributions to the science and communication of Palynology, Vaughn was awarded the Distinguished Medal for Scientific Excellence in 2016.

Throughout all, Vaughn was a gifted teacher and mentor. No student every went hungry on his watch, and even through profound hearing loss sometimes made conversations challenging, he was always there to listen and provide constructive advice...although

we all suspect he would casually lower the power on his hearing aids when enduring particularly long diatribes. His significant contributions as an educator and researcher earned him the title of Regents Professorthe highest honor bestowed within the Texas A&M University system. From his introductory anthropology classes to his graduate students to the colleagues he took under his wings and mentored through their starts in academia and beyond – Glenna Dean, Kristen Sobolik, John Jones, Karl Reinhard, Gretchen Jones, Dawn Marshall, Sophie Warny, Jen O'Keefe, Andy Laurence, Angie Perrotti, Rossana Paredes, Katie Bailey, and Chase Beck, among so many others, and the students he left behind - Pierre Lau, Katelyn McDonough, and Anthony Taylor - he spread his can-do and change the world attitude wherever he went, always with a smile, often with a hug, often with a swift kick in the butt and a nudge in the right direction, usually in 20-point neon fonts.

An obituary and information about a memorial for Vaughn can be found at <u>https://</u><u>drbryantmemorial.github.io/</u>.



Photo: A clown car? In College Station? Nope! Just Dr. Bryant taking all the hungry students to lunch! (Photos from Angelina Perrotti)



Photo: Ever the Longhorn, Vaughn changed the world and celebrated life wherever he went. (Photo from: Andrew Laurence).

#### Arthur D. Cohen 1942-2020

#### A Palynologist and Organic Petrographer

By Jen O'Keefe, Fred Rich, James C. Hower

Arthur David Cohen, Distinguished Professor Emeritus at the University of South Carolina and long-time AASP-The Palynological Society member, died peacefully in his sleep in May 2020. He leaves an extensive legacy of insights into sub-tropical swamp and saltmarsh plant communities, peat development,



Photo: Art in the Everglades. (Image from Arthur Cohen via James C. Hower)

and coalification. Palynology was a continuous thread through Art's more than 50 years of academic contributions.

Art was born in Wilmington, DE on 26 February 1942. He received his B.S. in geology, with a minor in mathematics, from the University of Delaware in June of 1964. It was during his B.S. that he was introduced to palynology by Dr. Edward A. Stanley, a recent graduate of the Coal Lab at The Pennsylvania State University, who supervised Art's BS thesis, "A Palynological Post-Glacial Sea-Level Investigation of Changes at Canary Creek Salt Marsh, Lewes, Delaware." Art began his graduate career following in Stanley's footsteps, joining William Spackman's Coal Lab at Penn State in 1964, along with University of Delaware classmate John C. "Jack" Crelling. Both would go on to illustrious careers in energy geosciences. While Alfred Traverse honed Art's palynological skills, Spackman introduced him to organic petrography and paleobotany, as well as the beauty and wonder of the Everglades and Okefenokee swamps, and the joy of teaching, both in the classroom and the field. These were passions that would never leave him.

The fall before completing his doctorate (December, 1968), Art began his first academic posting, as an assistant professor of geology at University of Georgia, working with his old mentor, E.A. Stanley. This ended up being a one-year appointment, as he was recruited to establish the Coal Laboratory at Southern Illinois University at Carbondale beginning in Fall 1969, a position he held as Assistant Professor until his resignation in summer 1974, when he took a one-year appointment at the US Geological Survey's Coal Research Branch in Reston, VA. In 1975 he took a position at the University of South Carolina, as Professor and Director of the Organic Sediments Research Center, a position he held until 1982. From 1982-1988 Art served as a staff scientist in the Wetlands Survey at Lost Alamos National Laboratory/University of California Berkeley

while also maintaining appointments as an adjunct professor at both the University of South Carolina (USC) and the University of New Mexico. In 1988, he returned to the University of South Carolina as a Professor of Geological Science & Marine Science, where he remained until his retirement in 2011. He relocated to Palm Harbor, Florida, following his retirement and opened Wetland Survey, LLC in Palm Harbor, Florida, which was active from 2014-2019. In 2015, Art was elected Distinguished Professor Emeritus of Geology at USC.

Over the course of his lengthy career, Art wrote or edited 12 books and published over 140 papers, as well as many abstracts and technical reports. Art was a leader in the study of peat petrography and pioneered the use of microtome thin-sections for this work, which sped up section production and increased tissue preservation. Throughout his early career, Art used both organic petrography and palynology to elucidate peat depositional systems, especially of the marine-influenced peats of the Everglades and Okefenokee. In later years, the focus shifted to geochemical studies supporting peat utilization on one hand, and palynology-driven paleoecological and archaeological studies on the other.

Throughout, he was known as a gifted field trip leader, and was very well known for the excursions into the Everglades and Okefenokee he produced for AASP, GSA, industry, and many universities. Impeccably designed, supported by research, maps, hand-samples, and microscope slides, these trips sparked many others' scientific careers and produced a great deal of camaraderie among the invariably wet and muddy participants. Whether boating, coring, or examining samples collected in the evenings, Art's depth of knowledge and intuitive integration of organic matter production, both in terms of standing biomass and palynology, taphonomy, geochemistry, depositional environments, and diagenesis made these trips the scientific gold standard.

It is also worthy of note that Art always dressed in respectable field gear; he could have gone shopping in his field attire. He never hesitated, though, to get "down and dirty" when it came to slogging through a swamp, up to his knees in water and peat. He clearly loved what he was doing.

A prolific researcher and presenter, Art was a fixture at scientific meetings, especially annual and regional meetings of the Geological Society of America, The Society for Organic Petrology, and AASP – the Palynological Society. Beyond his insightful presentations, Art was well known for quietly entering presentation halls, asking one or two insightful questions, then fading into the background. He was never one to call attention to himself but went out of his way to support students and help everyone around him grow as scientists.



Photo: Wet and muddy Art and students leaving Okeefenokee after a successful peat coring expedition. (Image from Fred Rich)

Art supervised or co-supervised 10 PhD students and 22 masters students on wideranging topics from peat petrography, palynology and paleoecology, geomorphology and tectonics of wetlands, elemental and mineral distributions in peats, and utilization of peats as sorbents. Many of his students went on to become well known scientists and public servants, including leaders in organic petrography (Jim Staub - MS, 1977), palynology and organic petrography (Fred Rich - PhD, 1979), and National Park Scientists (David Skelley - PhD, 2007). For excellence in undergraduate education in the classroom and field, Art received the Michael J. Mungo Undergraduate Teaching Award from the University of South Carolina in 2003.

A consummate public servant, especially early in his career, Art served as chairman of the Coal Division (now Energy Geology Division) of the Geological Society of America in 1976 and won the outstanding paper award in 1987. He became a fellow of the Geological Society of America in 1982. Beginning with his service in 1976, Art completed many volunteer tasks with the Coal Division, including internal committee service, membership on the joint technical program committee for annual meetings, and as a session chairman. For 20 years of sustained service, he received the Distinguished Service Award from the Coal Division in 1996. Art served on the ASTM Classification of Peat Committee, which he chaired in 1979, as well as contributing to the development of other ASTM standards relating to coal and peat, for which he won Standards Development Awards in 1992, 1996, and 1997. Art served as president of The Society of Organic Petrology in 1989-1990. He received the Gilbert Cady Award from the Coal Geology Division (now Energy Geology Division) of the Geological Society of America in 2005 for his immense contributions to peat and coal petrography, palynology, and geochemistry, as well as energy education.

Art left us in much the same way he lived among us: quietly, with no fanfare, but he will not be forgotten: his scientific legacy will stand the test of time.

A list of Art's publications is given as a supplement to this NL at the AASP–The Palynological Society website.

### PBot - The Integrative Paleobotany Portal

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. A detailed itinerary for the workshop along with registration information will follow at a later date (the workshop will be free).

PBot development team: Ellen Currano; Dori Contreras; Andrew Zaffos; Rebecca Koll; Claire Cleveland; Mark Uhen; Shanan Peters.



### 'The Azolla Story: A message from the future.'

By Jonathan and Alexandra Bujak

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

Published as an ebook, 31 December 2020.

Available as an ebook from Amazon.

For more details about the book and see <u>http://</u> <u>theazollastory.com/about-the-azolla-story/</u> or contact jonathanbujak@outlook.com.

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

It begins with the 2004 Arctic Coring Expedition (ACEX) that discovered the **Arctic Azolla Event** (link: <u>http://theazollafoundation.org/azolla/</u> <u>the-arctic-azolla-event-2/</u>) featured in National Geographic (May 2005), Nature (1 June 2006) and the New York Times (November 2004). 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 (CO2), ending the world's greenhouse climate and moving it

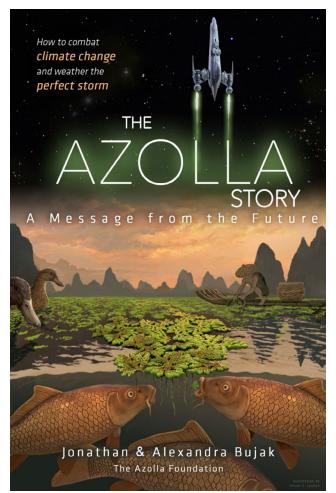


Photo: The book cover was designed by paleoartist Victor Leshyk (weblink: victorleshyk.com).

towards today's icehouse with its succession of ice ages.

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 the third major evolutionary jump since life began on our planet. The result was azolla – the only plant with a co-evolving nitrogen-fixing cyanobacterial symbiont that 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 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 [link here: http://theazollafoundation.org/], 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 on other worlds.

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 highvalue 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

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.' (link here: <u>http://theazollastory.com/</u>).

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.

#### References

Carrapiço, F. "Azolla as a Superorganism. Its Implication in Symbiotic Studies." Cellular Origin, Life in Extreme Habitats and Astrobiology Symbioses and Stress, 2010, pp. 225–241., doi:10.1007/978-90-481-9449-0\_11. Web link: <u>https://www.researchgate.</u> <u>net/publication/226143146\_Azolla\_as\_a\_Superorganism\_Its\_Implication\_in\_</u> Symbiotic\_Studies

### GSA 2021



By Francisca Oboh-Ikuenobe

The 2021 Geological Society of America Annual Meeting is scheduled for 10-13 October 2021, in Portland, Oregon.

The following link provides information about the 2021 GSA Annual Meeting: <u>https://</u>community.geosociety.org/gsa2021/home

### Call to Serve Newsletter open positions



Not sure that you want to run for office but want to help the society?

Current vacancies include:

#### · BOOK REVIEW EDITOR

Become a newsletter correspondent, either formally or informally! We welcome student and professional news, book reviews, reports on meetings, workshops, etc. Submissions are due on November 15, February 15, May 15, and August 15, annually.

The AASP - The Palynological Society Newsletter is a publication with an ISSN number (ISSN 0732-6041), which **helps your CV!** 

Our newsletter is only as good as the news we receive. Please stay in touch!

Gilda Lopes Newsletter Editor



### **Consider Helping our Mission**

#### AASP FOUNDATION CENTURY CLUB



#### What?

The Century Club of the American Association of Stratigraphic Palynologists Foundation is an organization founded by the Trustees of the Foundation in order to provide persons with the opportunity to support activities of the AASP Foundation.

#### Why?

1. To develop an established level of giving that will continue to provide a solid financial base for the Foundation.

2. To provide unrestricted funds to support the various publishing activities of the Foundation.

3. To provide a meaningful organization and method of recognition of dedicated "friends" of the AASP Foundation.

#### How?

Your tax-deductible contribution of \$100 or more to the AASP Foundation entitles you to belong to the Century Club. The 2020 "membership" drive is on now. Your contribution may be made by personal check or by a pledge which is **payable on or before December 31, 2021.** 

#### Join!

To join the Century Club, simply complete the attached Contribution/Pledge Form and mail to the address listed below.

The AASP Foundation is a 501 (c)(3) not-for-profit, public organization registered in the United States. This means that contributions to the AASP Foundation are fully deductible on your U.S. Federal Income Tax return. Also, many employers have a matching gift program whereby they match your personal gift to not-for-profit organizations. It is well worth the effort to explore this possibility concerning your gift to the AASP Foundation.

### 2021 AASP Foundation Century Club Contribution Form

Mail to: Thomas D. Demchuck AASP Foundation Chair and Trustee 14419 Lotusbriar Ln. Houston, TX 77077

Name:	
Address:	
Contribution Enclosed: \$	I wish to pledge: \$

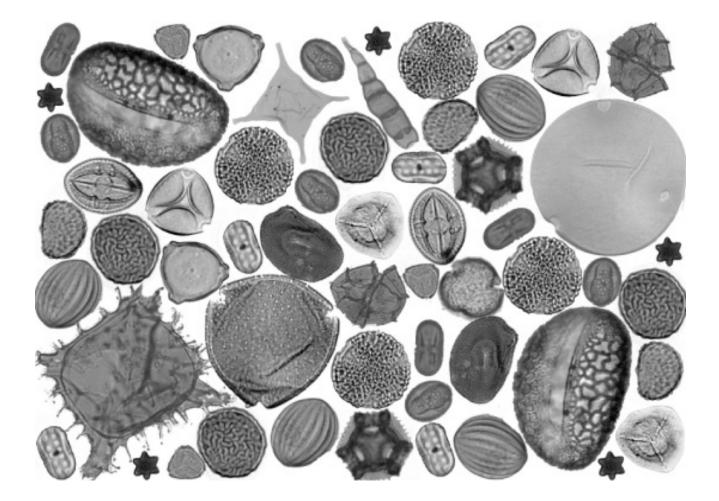
### Upcoming AASP – TPS Meetings

#### August 9-13, 2021 53rd Annual Meeting of the AASP - The Palynological Society

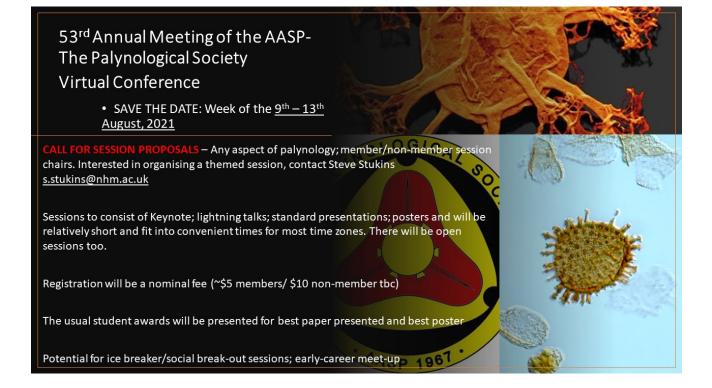
Virtual Conference Organizers: Stephen Stukins, Kimberley Bell, Vera Korasidis, Jim Riding, and Damián Cárdenas

#### August 7-11, 2022 54th Annual Meeting of the AASP - The Palynological Society Manizales, Colombia

Organizers: Ingrid Romero, Angelo Plata & Andres Pardo







### **AASP-TPS 53rd Annual Meeting Logo Contest**

Winning logo will be awarded free meeting registration. Logo designs must include AASP-TPS logo and be in jpeg, png or tiff format. Deadline: April 16, 2021. Submit to Damián Cárdenas: dcvvt@mst.edu







## 54<sup>th</sup> Annual Meeting AASP-The Palynological Society

Manizales, Colombia August 7 – 11, 2022

Organized jointly with

The Latin America Association of Paleobotany and Palynology (ALPP) The Online Pollen Catalogs Network (RCPoL)

The annual Palynological Society AASP-TPS meetings have as main goal to show the last advances in palynology at a scientific, technical, and academic level. For years, the AASP-TPS has focused on palynology as a biostratigraphic tool. In 2022, the annual meeting of the AASP-TSP will be in held in Colombia for the first time and for the second time in Latin America. For this reason, we want to celebrate the palynological diversity of the Neotropics and make this event an opportunity to include the diversity of the palynological community.

This meeting will include the participation of the Latin American Society of Paleobotany and Palynology (ALPP), and the Online Pollen Catalogs Network (RCPoL). The meeting will take place in Manizales, a traditional coffee city. Manizales and the Institute of Investigations in Stratigraphy (IIES) at Universidad de Caldas will welcome the global palynological community.







### 54 Encuentro Anual La Sociedad Palinológica AASP-TPS

Manizales, Colombia Agosto 7 – 11, 2022

Organizado conjuntamente con La Sociedad Latinoamericana de Paleobotánica y Palinología (ALPP) La Red de Catálogos Polínicos Online (RCPoL)

Las reuniones anuales de la Sociedad Palinológica AASP-TPS, tienen como objetivo mostrar los últimos avances en los diferentes aspectos y aplicaciones de palinología. Este evento se caracteriza por el alto contenido técnico, científico y académico. Desde 1967, la AASP-TPS ha dado gran importancia a el uso de la palinología como herramienta bioestratigráfica tanto en la industria del petróleo como en la academia.

En el 2022, el encuentro anual de la AASP se realizará por primera vez en Colombia, y por segunda vez en Latinoamérica. Por esta razón, en este encuentro queremos celebrar la diversidad palinológica del Neotrópico, y que esta sea una oportunidad para incluir la diversidad de palinólogos y colaboradores. Para esto contamos con la participación activa de la Asociación Latinoamericana de Paleobotánica y Palinología (ALPP) y la Red de Catálogos Polínicos Online (RCPol), en un sólo espacio y un solo evento en América Latina.

Manizales, una ciudad cafetera por tradición abre sus puertas para recibir a la comunidad palinológica mundial, y el Instituto de Investigaciones en Estratigrafía (IIES) de la Universidad de Caldas dan la bienvenida al evento.



Other Meetings and Workshops of Interest



#### **IMPORTANT DATES**

Early bird registration 1 September 2021– 28 February 2022

Call for Abstracts 15 January–15 April 2022

**Regular registration opens** 1 March 2022

**Abstract notifications** 30 May 2022

For inquiries, please contact: info.icp14@uib.no

Conference website https://icp14.w.uib.no/

The pandemic is currently putting limitations on international mobility, but we hope it will be possible to hold the ICP14 in Bergen in 2022. We plan for a traditional ICP centred around invited plenary presentations, extended poster sessions, a discussion session and social activities, including a Paleomusicology concert. This format is the beating heart of every ICP meeting, and we cannot imagine an ICP without the vibrant atmosphere this brings. We acknowledge that post-pandemic travel habits may change permanently, so we are also looking into solutions for digital participation and interaction.

#### 14<sup>th</sup> International Conference on Paleoceanography

#### 29 August–2 September 2022

Bergen, Norway

#### FIRST ANNOUNCEMENT

We cordially invite you to Bergen, the gateway to the Norwegian fjords, to join the 14<sup>th</sup> edition of the International Conference on Paleoceanography. The University of Bergen, NORCE Norwegian Research Centre, and the Bjerknes Centre for Climate Research are hosting the event.

The ICP gathers world experts and newcomers in the field of paleoceanography, to bring together researchers working on past climate and ocean change on a range of timescales, using climate proxies or modelling approaches. The conference provides an opportunity to present and debate ground-breaking new observations while creating the ideal environment for fostering discussions of pressing challenges and new scientific initiatives.

#### **ICP14 Scientific Committee**

Ayako Abe-Ouchi, University of Tokyo, Japan Jess Adkins, California Institute of Technology, USA Gavin Foster, University of Southampton, UK Jochen Knies, Geological Survey of Norway Tom Marchitto, University of Colorado Boulder, USA Helen McGregor, University of Wollongong, Australia Nele Meckler, University of Bergen, Norway Ulysses Ninnemann, University of Bergen, Norway Bette Otto-Bliesner, National Center for Atmospheric Research, USA Antoni Rosell-Melé, University of Barcelona, Spain Daniela Schmidt, University of Bristol, UK

The Local Organising Committee

Hosted by: N





