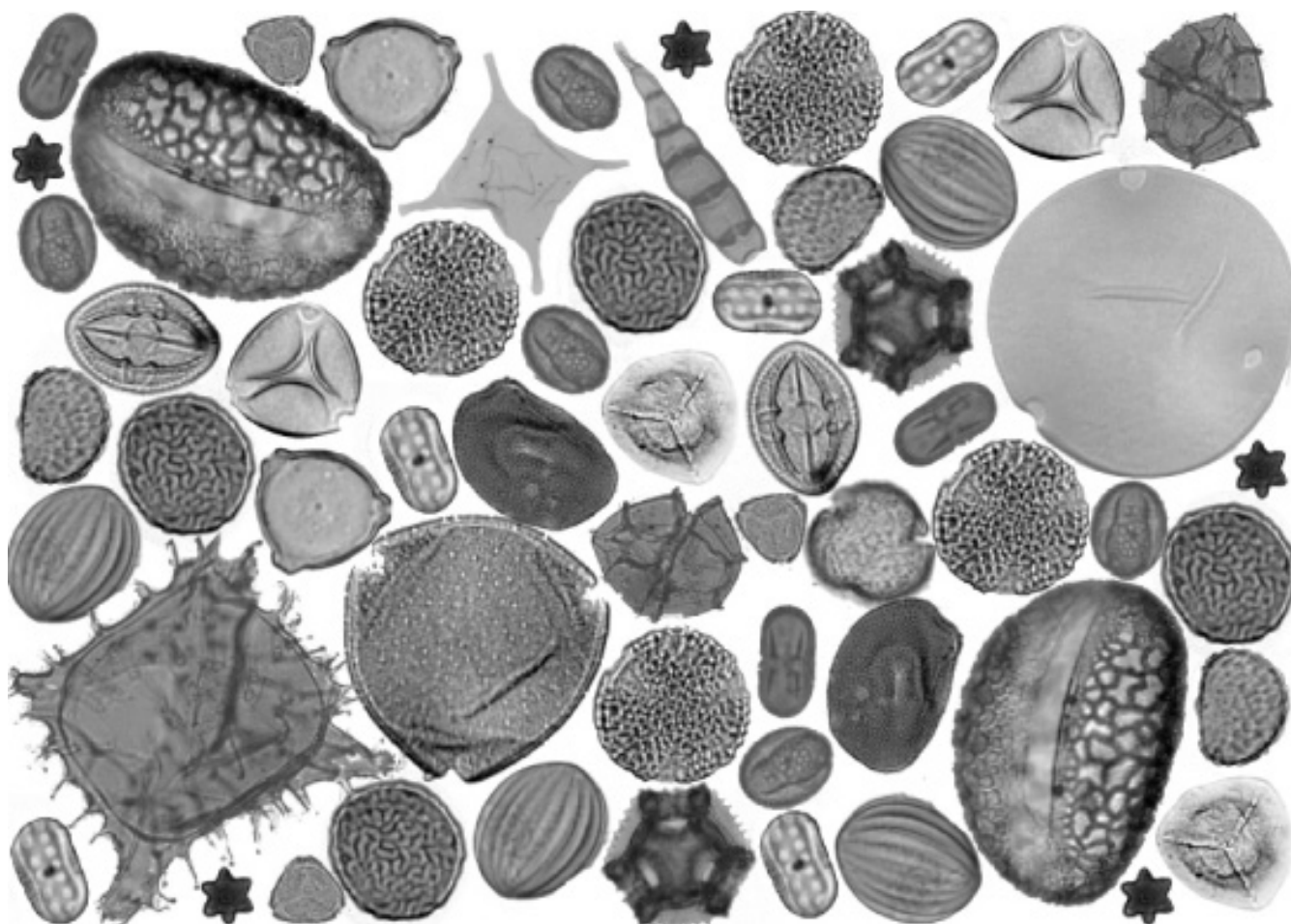




AASP – The Palynological Society

Promoting the Scientific Understanding of Palynology since 1967



NEWSLETTER

September 2019
Volume 52, Number 3

Published Quarterly



AASP – TPS NEWSLETTER

Published Quarterly by AASP – The Palynological Society

September 2019, Volume 52, Number 3

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AASP

The Palynological Society

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.

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Dr. James B. Riding (awarded 2016)
Prof. Martin B. Farley (awarded 2019)



AASP – TPS NEWSLETTER

Published Quarterly by AASP - The Palynological Society

September 2019
ISSN 0732-6041

Volume 52, Number 3
Gilda Lopes, Editor

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To express interest in open correspondent positions, please send an email to:
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AASP WEBMASTER

Fabienne Marret, aaspwebmaster@gmail.com, website: <http://www.palynology.org>

AASP NEWSLETTER EDITOR

Gilda Lopes, aaspnews@gmail.com, Faro, Portugal

AASP NEWSLETTER GRAPHIC DESIGN (September 2019 Issue)

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 NOVEMBER 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 DO look forward to contributions from our membership.**

A Message From Our President

Dear colleagues and friends,

This is my first letter as AASP president, and I'm proud and excited to serve the organization for the next two years! First of all, I would like to thank Gunn, our past president, for all her good work. We got a lot accomplished in the last two years, and I'm more than happy to take over the steering wheel from her. I will work hard to keep this ship on course and continuing the progress. Of course, this is only possible with a good crew, and we are very lucky to have an excellent and very dedicated group of people on board, who put their blood, sweat and tears into this organization. Thanks to all of you!

Our 52nd Annual Meeting was hosted in Ghent/ Belgium and was a great success. Stephen Louwye and Thijs Vandenbroucke did an amazing job organizing a meeting that covered all aspects of palynology and I think everybody who attended thoroughly enjoyed it! For me, this meeting was a perfect representation of what The Palynological Society should be: A highly diverse group of people, with all kinds of backgrounds, from academia and industry, presenting high-end integrated research and a host of creative new applications.

However, there is as always room for improvement: When we compare the attendees of the conference and the AASP membership, we can clearly see that some demographics are still underrepresented. We work hard towards attracting more of those colleagues and hope sincerely they will feel at home in our society. The first group is Quaternary palynologists and climate modelers. And whilst there were some representatives of Latin- and South America, Asia and Australia in Ghent, our society is still dominated by North American and European members. Hopefully, the selection of the next two annual meeting venues reflects our efforts: The 53rd Annual Meeting will be held in Baton Rouge, Louisiana. Louisiana State University not only hosts Cenex, our very own Center of Excellence, but is also known for



Photo: Katrin Ruckwied, AASP - TPS President

world class climate research! For those of you who have never seen the Mississippi delta and the coastal swamp, this is your chance, and believe me, every geologist should have seen it once! I'm also delighted that the 54th annual meeting will be hosted in Manizales, Colombia and will be the perfect venue to connect us with many South American palynologists.

As the overall numbers of palynologists are decreasing, we must join forces and get better connected amongst ourselves. Let's carry the wonderful "Ghent spirit" over to the upcoming events, I hope to see y'all next year in Baton Rouge!

Best regards,
Katrin

Managing Editor's Report

Volume 43, Parts 1 and 2 of *Palynology* was printed and distributed in June 2019. Furthermore, Part 3 plus a Supplement to this Volume on the dinoflagellate cyst genus *Cyclonephelium* and its relatives by Rob Fensome and three coauthors were published online recently. The contents of Part 3 are reproduced below. The final part of the journal for 2019 will be issued both online and in print during October this year. We do hope that you like the tasteful light green cover featuring the dinoflagellate cyst *Dolichodinium?* sp.

The 2018 Impact Factors were released by Clarivate this June. Our Impact Factor dropped to 1.253 from 1.383 (i.e. a minimal decrease of 0.130). This small variation is not regarded as representing a trend, and we hope that we regain this ground and more when the 2019 data are released next year. The journal is now in Quartile 3 for the ISI Palaeontology category (ranked 33/57), and remains in Quartile 3 for Plant Sciences.

We have just agreed a new, and improved, five-year contract with Taylor and Francis, and this will begin in January 2020. Discussions are taking place with our publishers regarding the implications for *Palynology* of Plan S and open access generally.

In *Contributions Series* news, Rob Fensome and his coauthors Graham Williams and Andrew MacRae hope to have the latest *Lentin and Williams Index of Fossil Dinoflagellates* out during October 2019. This will not be printed, and the pdf file will be freely available to download from the website.

James B. 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

12th August 2019



The contents of *Palynology* Volume 43, Part 3

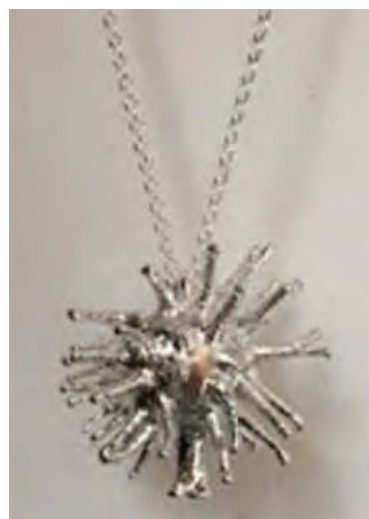
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1. Riding, J.B., Lebedeva, N.K. and Goryacheva, A.A. Obituary. Vera Ivanovna Ilyina (1930–2018). 349–354.
2. Song, Y., Gu, L. and Liu, J. Pollen morphology of selected species from the family Solanaceae. 355–372.
3. Mezzonato-Pires, A.C., de Sousa, H.C.F., Mendonça, C.B.F. and Gonçalves-Esteves, V. Pollen morphology of *Barteria* and *Paropsia*: implications for the systematics of Passifloraceae *sensu stricto*. 373–382.
4. de Freitas, A.S., Barreto, C.F., Bastos, A.C. and Baptista Neto, J.A. The Holocene paleoenvironmental evolution of Vitória Bay, Espírito Santo, Brazil. 383–393.
5. Tahoun, S.S. and Ied, I.M. A Cretaceous dinoflagellate cyst palynozonation of northern Egypt. 394–410.
6. Wainman, C.C., Mantle, D.J., Hannaford, C. and McCabe, P.J. Possible freshwater dinoflagellate cysts and colonial algae from the Upper Jurassic strata of the Surat Basin, Australia. 411–422.
7. Niechwedowicz, M. *Odontochitina dilatata* sp. nov. from the Campanian (Upper Cretaceous) of Poland: the importance of wall structure in the taxonomy of selected ceratiacean dinoflagellate cysts. 423–450.
8. Srivastava, J., Farooqui, A. and Seth, P. Pollen-vegetation relationship in surface sediments, Coringa mangrove ecosystem, India: palaeoecological applications. 451–466.
9. Ied, I.M. and Tahoun, S.S. A Cretaceous sporomorph palynozonation and the palaeobiogeography of northern Egypt. 467–482.
10. Gu, F., Chiessi, C.M., Zonneveld, K.A.F. and Behling, H. Shifts of the Brazil-Falklands/Malvinas Confluence in the western South Atlantic during the latest Pleistocene–Holocene, inferred from dinoflagellate cysts. 483–493.
11. Torres, G.R., Fierro, P.T., Sanchez, A.C. and Lupo, L.C. Relationship between vegetation assemblages and modern pollen in semiarid environments of Jujuy, northwestern Argentina. 494–506.
12. Martinelli, E., Castelletti, L., Oberli, F., Maggioni, C. and Tinner, W. Pollen from beeswax as a geographical origin indicator for the medieval Evangelistary cover 'Pace di Chiavenna', Northern Italy. 507–516.
13. Horn, S.P., Boehm, M.S. and Ballard, J.P. An improved chronology for the microscopic charcoal and pollen records from Anderson Pond, Tennessee, USA. 517–522.
14. Alves, R.F. and Santos, F.A.R. Pollen foraged by bees (*Apis mellifera* L.) on the Atlantic Forest of Bahia, Brazil. 523–529.
15. Asprino, R.C., Santos, F.A.R. and Amorim, A.M. Pollen morphology of some Brazilian species of *Hirtella* L. (Chrysobalanaceae). 530–537.

AASP – TPS 50th Anniversary Jewelry Collection

Exclusive, Custom-made 50th Anniversary Jewelry

Limited-Edition and availability



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 or check can be mailed to Treasurer, Rebecca Hackworth, 1030 East 14th Street, Houston, TX 77009. Necklaces can be mailed at your request.

AASP – TPS 2019 Distinguished Service Award

AASP – The Palynological Society bestows
upon

PROF. MARTIN B. FARLEY

The AASP Distinguished Service Award



Prof. Martin B. Farley

It is an honor for the AASP Board of Directors to bestow upon Martin B. Farley the AASP – The Palynological Society - Distinguished Service Award. The award is presented for his many years of dedication and outstanding service and commitment to AASP, as a Board Member, Chair and Member of the Awards Committee,

Annual Meeting Session Organizer, and Liaison between AASP and other Geoscience Organizations.

On behalf the AASP Board of Directors

May 2019

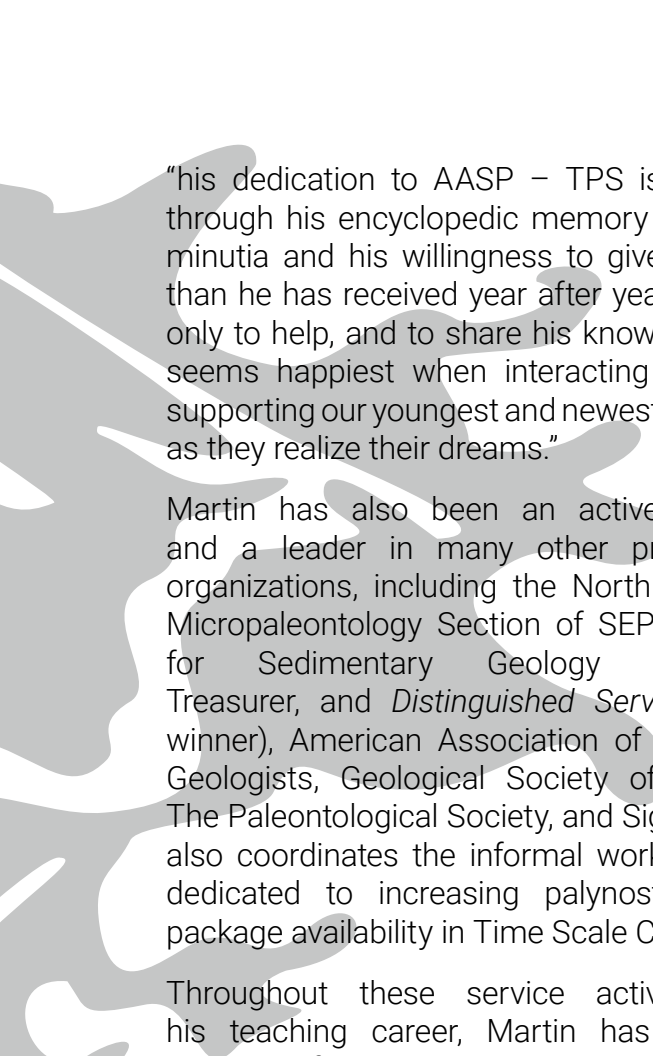
Gunn Mangerud (President)

PRESENTATION BY JEN O'KEEFE, FRANCA OBOH-IKUENOBE, AND REED WICANDER

This year marks Martin's 37th year of service to AASP – The Palynological Society. During this time, he has helped define the word service and what it means to the strength, growth, and future health of our organization.

Martin earned a BS (with highest distinction) in Geosciences from The Pennsylvania State University in 1980, an MA in Geology at Indiana University in 1982, his PhD in Geology with a Minor in Botany in 1987, and was a Postdoctoral Fellow in the Department of Paleobiology at the Smithsonian Institution, Washington, D.C. from 1988-1989. Following a stint in industry, Martin returned to academia, climbing the ranks to Full Professor in 2013, and assuming the Chairmanship of the Department of Geology and Geography at the University of North Carolina -Pembroke, North Carolina, a position which he has held since 2005.

Suffice it to say, Martin has been an indefatigable supporter and advocate for AASP – The Palynological Society and the palynological community in general. He has served our organization as Director at Large (1992-1994), Awards Committee chair, field-trip leader and organizer, meeting and session organizer, as well as numerous activities that lack a formal title. As one letter of support read:



"his dedication to AASP – TPS is apparent through his encyclopedic memory of society minutia and his willingness to give far more than he has received year after year. He asks only to help, and to share his knowledge, and seems happiest when interacting with, and supporting our youngest and newest members as they realize their dreams."

Martin has also been an active member and a leader in many other professional organizations, including the North American Micropaleontology Section of SEPM Society for Sedimentary Geology (President, Treasurer, and *Distinguished Service Award* winner), American Association of Petroleum Geologists, Geological Society of America, The Paleontological Society, and Sigma Xi. He also coordinates the informal working group dedicated to increasing palynostratigraphy package availability in Time Scale Creator®.

Throughout these service activities and his teaching career, Martin has been an advocate for micropaleontology, not just in the petroleum industry (as shown by insightful articles in *Geotimes* and *Offshore* in 2000 and 2002 respectively), but also in the classroom, exemplified by his numerous presentations incorporating palynological data into both major-level geology and general education courses. Most recently, this has been through his melissopalynology work on bees with the UNC-Pembroke students, as well as students from the nearby Tar Heel Middle School and West Bladen High School, leading to presentations on melissopalynology at the North Carolina Academy of Sciences Meetings in 2017 and at BASF this spring.

Martin has been involved in K-12 STEM experiences for a long time, and through continued work with the campus garden and apiary, he has extended this into palynology and microscopy modules for the UNC-Pembroke "Kids in the Garden" summer camp program. Like previous recipients of the Distinguished

Service Award, Martin has been tireless in bringing palynology to the greater scientific community and the general public.

It is abundantly clear from the numerous letters of support for Martin that his greatest impact in AASP – The Palynological Society has been his service and leadership during the past 13 years as chair of the Awards Committee. In particular, within the purview of the Awards Committee, Martin has been a strong advocate in supporting student efforts in research, attendance at professional meetings, as well as providing advice and mentoring on how to make effective oral presentations, and scholarship and grant applications. As was stated in a letter of support "organizing the judging at our annual meetings is a difficult task, arm-twisting judges and coordinating the process, but Martin has thrown himself into the process for a dozen years with his characteristic zeal."

On behalf of the Board of Directors of AASP – The Palynological Society, it is our pleasure to present to you the AASP – The Palynological Society Distinguished Service Award for your many years of outstanding service and commitment to our organization.

Jen O'Keefe, Franca Oboh-Ikuenobe, and
Reed Wicander

June 2019

PROF. MARTIN B. FARLEY RESPONSE

I am honored that the Society has seen fit to select me for the Distinguished Service Award. I would like to thank the members of the Board, the Awards Committee, and the Society members who put the effort into the nomination. I couldn't have predicted this outcome when the late John Wrenn persuaded me to help him with short courses in the early

1990's.

My work with the Society has expanded my knowledge beyond my own personal work in palynology. My service on the Short Course Committee, the Board, organizing the Houston IPC, and the Awards Committee has allowed me to interact with a wider variety of palynologists than would have been possible in my own specialty. I certainly cherish these

opportunities with palynologists such as Bill Elsik, Francine McCarthy, Franca Oboh-Ikuenobe, Bob Clarke, Vaughn Bryant, Owen Davis, Fred Rich, and Reed Wicander. These interactions have led to opportunities in the field beyond what I could have imagined.

It has been a pleasure to be able to serve AASP all these years and I look forward to further opportunities in the future.

Undergraduate Student Award Winner



Aaron Quigley

MSc. student
University of Portsmouth, UK

My name is Aaron Quigley, I have recently completed my final year of the BSc (Hons) Palaeontology degree at the University of Portsmouth. Palaeontology has always been a subject close to my heart, starting out with a very typical obsession with dinosaurs from a young age and developing into much broader horizons as I progressed throughout my time at university.

My time at Portsmouth has opened my eyes to the diverse and intricate world of palynology, a discipline far from the world of large land vertebrates. Indeed, my undergraduate dissertation project focused on investigating the changing palaeoenvironments and palaeobiodiversity across the Triassic – Jurassic extinction event in Northern Ireland, with palynological analysis forming a vital constituent to piecing together the puzzle of the changing flora and fluctuating sea levels, by identifying key changes and variation in spores, pollen and marine phytoplankton among others.

This was a skill developed across my three years at the university and particularly in the unit 'Industrial Applications of Palaeontology', taught and supervised by unit coordinator Professor Annette E. Götz.

AASP – TPS 2019 Travel Grant Winners

AASP – The Palynological Society would like to congratulate all the 2019 Travel Grant Awardees. Here are the abstracts presented at the Annual Meeting in Ghent:



Meghan Duffy

Louisiana State University, Baton Rouge, LA, USA

Abstract:

Vegetation prior to and during the development of the East Antarctic Ice Sheet: High resolution palynological insights from Sabrina Coast, East Antarctica

Duffy, M.^{1,2*}, Smith, C.³, Warny, S.^{1,2}, Shevenell, A. E.⁴, Gulick, S. P. S.⁵, Leventer, A.⁶

¹Department of Geology & Geophysics, Louisiana State University, Baton Rouge, LA, USA

²Museum of Natural Science, Louisiana State University, Baton Rouge, LA, USA

³International Ocean Discovery Program, Texas A&M University, College Station, TX, USA

⁴College of Marine Science, University of South Florida, St. Petersburg, FL, USA

⁵Institute of Geophysics & Department of Geological Sciences, University of Texas at Austin, Austin, TX, USA

⁶Department of Geology, Colgate University, Hamilton,

NY, USA

*Corresponding author: mduffy7@lsu.edu

The Aurora Subglacial Basin, which contains an estimated 3.5m of global sea level equivalent ice, is primarily drained by the Totten Glacier system, which terminates at the Sabrina Coast, East Antarctica. Thinning and retreating of Totten Glacier and other local outlet glaciers indicates that this region is highly susceptible to oceanographic and atmospheric changes associated with ongoing climate change. A paleoclimate perspective on these observed changes is necessary to improve understanding of East Antarctic Ice Sheet (EAIS) dynamics in this sensitive glacial catchment. Gulick et al. (2017) used seismic and sediment core data to document a dynamic early evolution of the EAIS in the Aurora Subglacial Basin. This study revealed that the EAIS underwent at least 11 glacial advances and retreats during the Oligocene and Miocene, suggesting that this large ice sheet may not be as stable as previously thought. Here we present new high-resolution palynological data from NBP 14-02 jumbo piston cores (JPC) JPC-54 and JPC-55, which were essential for constraining the age of the initial marine terminating glaciation on the Sabrina Coast. The palynologic assemblages preserved in these sediments will enable the reconstruction of regional vegetation and environments during the early stages of EAIS development. Detailed assemblage data from JPC-54 and JPC-55 also contribute to the newly described palynological Sabrina Flora. The Sabrina Flora is dominated by angiosperms, with *Gambierina* (*G.*) *rudata* and *G. edwardsii* complexes, often exceeding 50% of the assemblage. In addition, diverse Proteaceae are notable in the assemblage,

along with *Battenipollis sectilis*, *Forcipites* sp., *Nothofagidites* (N.) spp., fern and conifer palynomorphs. Two new species (Smith et al., 2019)- *Battenipollis sabrinae* sp. nov. and *Gambierina askinae* sp. nov. are also common. Because of pristine preservation and the frequent occurrence of *Gambierina* spp. clusters, the majority of the Sabrina Flora assemblage from JPC-54 and JPC-55 is interpreted as being penecomtemporaneous to sedimentation. Preliminary biostratigraphic results indicate JPC-54 and JPC-55 as latest Paleocene to early-mid Eocene sediments with likely contributions from reworked mid-Cretaceous marine deposits (Smith et al., 2018).



Martha Gibson

University of Sheffield, Sheffield, UK

Abstract:

British Zechstein palynomorphs suggest a wetter late Permian environment

Gibson, M. E.^{1*}, Wellman, C. H.¹, Taylor, W.²

¹Animal and Plant Sciences, University of Sheffield, Western Bank S10 2TN Sheffield, United Kingdom

²Department of Biology, University of Wisconsin-Eau Claire, 105 Garfield Avenue, Eau Claire, WI 54701, USA

*Corresponding author: megibson1@sheffield.ac.uk

The Zechstein Sea was a semi-isolated inland sea that occupied the Southern Permian Basin during the late Permian (~255Ma). The sea endured at equatorial latitudes for 5 to 7 million years during which time it underwent five cycles of evaporation. In the context of an increasingly arid Late Permian climate, classic Zechstein reconstructions show cyclic regressions accompanied by evaporative down-draw leading to hypersaline conditions. This resulted in dramatic short term reductions in biotic abundance and diversity in both the marine and terrestrial realms. However, it is hypothesised that transgression phases experienced sufficient precipitation to allow ecosystem recovery in both marine and terrestrial environments.

Palynological investigation of borehole material from northeast Yorkshire has yielded unexpected palynomorph abundance from the Carnallitic Marl Formation in the fourth cycle, and a similarly abundant assemblage from the Boulby Halite and Brotherton Formation of the third cycle. The palynomorph assemblage is dominated by striate bisaccate pollen accompanied by monosaccates and trisaccates. Typical late Permian taxa have been identified: *Lueckisporites*, *Protohaploxypinus*, *Taeniaesporites*, *Klausipollenites*, *Vestigisporites*, *Illenites*, *Falcisporites*, *Labiisporites*, *Nuskoisporites*, *Perisaccus*, and *Vittatina*. These taxa lend support to a transient gymnosperm late Permian Euramerican vegetation, dominated by phylogenetically advanced conifers, one to two species of ginkgophytes, and rare cycads, pteridosperms and pteridophytes.

Ongoing quantitative analysis of these

assemblages is revealing changes in the vegetation structure throughout the Zechstein sequence. Analysis is revealing how the vegetation changed both in response to ariditisation within each cycle, and to the effects of repeated cyclicity and overall late Permian climate trends. In addition, TEM analysis of pollen wall ultrastructure is underway to elucidate parent flora affinities for key pollen taxa including *Lueckisporites virkkiae* Potonié and Klaus 1954 emend. Clarke 1965. Not only will this allow for a more accurate ecological reconstruction but it will also contextualise the Zechstein vegetation with regards to the floristic changes occurring at the Palaeozoic-Mesozoic boundary.

The presence of such an abundance of palynomorphs questions previous assumptions that late Permian equatorial climates were continuously arid. These findings suggest the climate was at times damp enough to support extensive gymnosperm forests despite the impending Permian-Triassic extinction event.



Erica Mariani
University of Exeter, Cornwall, UK

Oceanographic and vegetation changes across the Palaeocene-Eocene Thermal Maximum in NW Europe and the Arctic

Mariani, E.^{1*}, Kender, S.^{1,2}, Riding, J.B.², Dybkjær, K.³, Pedersen, G.K.³, Littler, K.¹, Hesselbo, S.P.¹, Leng, M.J.⁴

¹Camborne School of Mines, University of Exeter, Penryn Campus, Penryn, Cornwall, TR10 9FE, UK.

²British Geological Survey, Environmental Sciences Centre, Keyworth, Nottingham, NG12 5GG, UK.

³Geological Survey of Denmark and Greenland (GEUS), Øster Voldgade 10, DK-1350 Copenhagen K, Denmark.

⁴NERC Isotope Geosciences Facilities, British Geological Survey, Keyworth, Nottingham, 15 NG12 5GG, UK.

*Corresponding author: em608@exeter.ac.uk

A geologically brief period of anomalous global warming, known as the Palaeocene-Eocene Thermal Maximum (PETM, 56 Ma) characterised the Late Palaeocene and Early Eocene climates, when global temperatures increased by ~5–8°C. The hyperthermal was associated with massive injection of ¹³C-depleted greenhouse gases, in the form of CO₂ and/or CH₄, into the oceanic-atmospheric system. The consequent disruption of the carbon cycle is reflected by a prominent negative carbon isotope excursion (CIE) recorded in the sedimentary record. Marine and continental ecosystems were equally affected by the climatic event and underwent substantial changes including migrations, extinctions, radiations and diversification. Particularly, among migrations, the acme of the subtropical dinoflagellate cyst *Apectodinium* is diagnostic for the PETM at high latitudes. Despite being extensively studied, the warming event and its associated palaeoenvironmental changes are not well documented at mid-high northern latitudes. We present high resolution and multi-proxy analyses on two marine sediment cores recovered in the Danish sector of the North Sea Basin (Fig. 1), primarily focusing on palynology: pollen, spores and dinoflagellate

cysts assemblages to assess vegetation and oceanographic reconstructions on a regional scale. The palynological data are coupled with geochemical investigation (stable isotopes and XRF elemental abundances) in order to correlate interpreted enhanced terrestrial

runoff with shifts in dinocyst assemblages, consequently providing important information on changes to water column properties.



Fig.1. A) Palaeogeographic reconstruction at 54 Ma, showing the location of cores Augusta-1 and E-8X; B) Detailed map showing the location of the cores and major structural elements in the Danish North Sea.

Abstract:

Early Silurian acritarchs from the Kallholn Formation in central Sweden

Walasek, N.^{1*}, Loydell, D.K.¹, Butcher, A.¹, Männik, P.², Frýda, F.³

¹School of Earth and Environmental Sciences, University of Portsmouth, Burnaby Building, Burnaby Road, Portsmouth, PO1 3QL, United Kingdom

²Institute of Geology, Tallinn University of Technology, Ehitajate tee 5, 19086 Tallinn, Estonia

³Faculty of Environmental Sciences, Czech University of Life Sciences Prague, Kamýcká 129, 165 21 Praha 6, Czech Republic / Czech Geological Survey, Klárov 3, 118 21 Praha 1, Czech Republic

*Corresponding author: natalia.walasek@port.ac.uk

The Silurian Period is widely recognised for



Natalia Walasek

University of Portsmouth, Portsmouth, UK

its global sea level fluctuations resulting from the advances and retreats of Gondwanan ice-sheets. These global events are reflected across a wide range of marine environments. However, there are no studies from the Siljan region, Sweden, of how these environmental changes influenced acritarch assemblages. Therefore, the aim of this study is to examine how these environmental changes influenced the diversity and composition of marine acritarch assemblages and integrate these

data with a new organic carbon isotope curve and newly revised biostratigraphical framework for the Kallholn Formation. During the early Silurian, the Siljan region was part of the Baltica palaeocontinent in the Southern Hemisphere within tropical palaeolatitudes. Palaeozoic outcrops are generally rare in this region; therefore, this Late Devonian bolide impact structure presents a unique opportunity to study the early Silurian succession.

Our analyses of graptolites and conodonts date the Kallholn (N) section to the middle Aeronian (beginning in the *leptotheca* Biozone) to lower Telychian (*crispus* Biozone) stages of the Llandovery Series. A new twin-peaked carbon isotope excursion – the Kallholn excursion, has been identified in the upper *turriculatus* Biozone (lower Telychian) preceding the Valgu Event and associated excursion.

Shale and carbonate nodule samples yield an exceptionally well-preserved and diverse acritarch association. Morphological characteristics of acritarchs, such as vesicle shape, number of processes, process bifurcation and length are applied as proxies for identifying relative Silurian eustatic sea level changes in the Siljan area. The relationship between the new palynological and geochemical data correlates well with previous sequence stratigraphic interpretations indicating a regressive trend, and suggest a change from an offshore environment during the *guerichi*/early *turriculatus* biozones to a near-shore proximal environment in the upper *turriculatus* Biozone.

2019 Annual Meeting Student Award Winners

The AASP - TPS would like to congratulate all the winners of the 2019 Annual Meeting Student Awards:

L.R. Wilson Best Student Paper:

Julie De Weirdt (Ghent University): Testing the toxic effect of redox-sensitive metals on Palaeozoic palynomorphs through synchrotron XRF elemental mapping, electron microprobe and LA-ICP MS measurements.

Honorable mentions (oral presentations):

1. Tim De Backer (Ghent University): Metal-induced malformations in early Palaeozoic plankton are harbingers of mass extinction.

2. Martha E. Gibson (University of Sheffield): British Zechstein palynomorphs suggest a wetter late Permian environment.

Best Student Poster:

Dan van der Velden (Ghent University): Fungal spores as paleovegetation proxy in East Africa.

Overview of AASP – TPS Awards Application Deadlines

Niall W. Paterson

Awards Committee Chairman

AASP – The Palynological Society has a number of awards that recognize outstanding service, to the Society or to the science of palynology.

The basic nomination procedure is similar for most awards (main letter of nomination accompanied by letters of support, which include documentation of accomplishment). Details of the procedures for each award can be found at <https://palynology.org/award-procedures/>.

The deadline for submission of nominations to the Awards Committee is **March 1** of each year.

A complete list of previous winners can be found on the third page of this newsletter.

Distinguished Service Award

This award recognizes individuals who have generously supported the Society with their work and resources over a number of 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 20 recipients of this award, most recently Martin B. Farley in 2019.

Honorary Life Membership

This is actually the oldest AASP award with the first awards dating to 1975. This award is either given to people making fundamental contributions to the science of palynology, or to people who have given devoted service to the AASP, or both. Honorary Life Membership has been awarded to 16 individuals, most recently to Norm Norton in 2016.

Medal for Excellence in Education

This medal recognizes leaders in palynological instruction. Nominees are expected to have considerable experience and accomplishment in all aspects of academic education involving palynology, including training of new scientists for the field. The medal has been awarded four times, most recently to Geoff Clayton in 2016.

Medal for Scientific Excellence

The Society's highest award for achievement

in the science of palynology is the Medal for Scientific Excellence. The official description lists "fundamental contributions to the development of the science of palynology" as the main criterion. Recipients should have a substantial research history in the field. The medal has been awarded 11 times in the history of the Society, most recently to Vaughn Bryant in 2016.

Nelly Koziel (to read more go to the Canadian Association of Palynologists Newsletter at <https://capacp.wordpress.com/library-resources/cap-newsletters/>).

- Texas A&M University - Regents Professorship awarded to Professor Vaughn Bryant Jr. (to read more go to the Liberal Arts website at <https://liberalarts.tamu.edu/blog/2018/12/04/a-sweet-reward>).

Recognition...

Several colleagues were recognized in 2019 for their contribution to palynology and lifelong achievements. Here is the list of awardees:

- Geological Survey of Canada - Golden Logan Medallion awarded to Rob Fensome, Graham Williams, Bill MacMillan, and the late

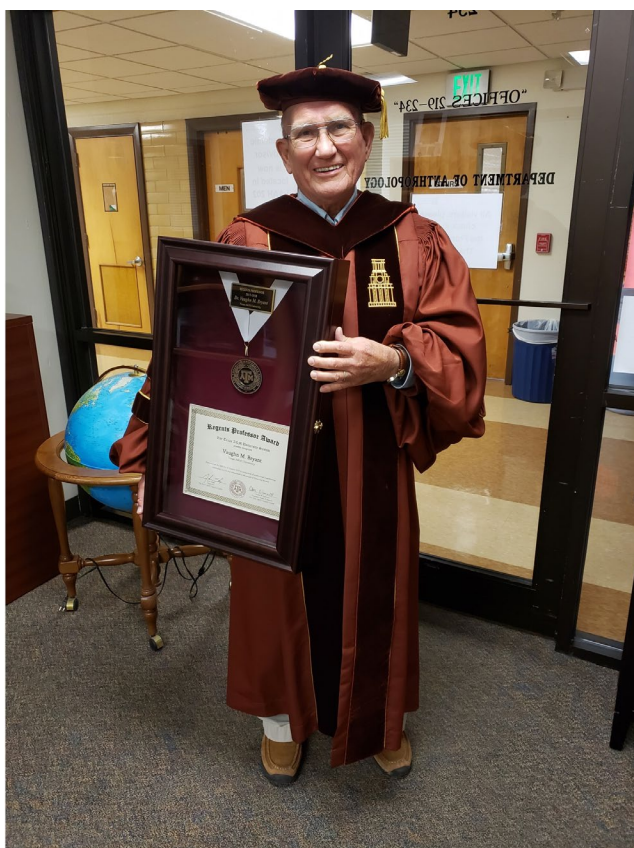


Photo: Professor Vaughn Bryant Jr. with his award.

In Memoriam...

Bernard Owens

By Jim Riding

I am very sorry to report that our much respected colleague Bernard Owens passed away on Wednesday the 31st of July 2019. He had been diagnosed with Parkinson's several years ago.

Bernard was a world leader in Carboniferous palynology. He graduated from the University of Sheffield and, after a postdoc in Canada, joined the British Geological Survey as their first ever micropalaeontologist. Bernard developed a substantial team of micropalaeontologists and palynologists, first in the Leeds Office and later in the headquarters in Nottingham. He led the BGS Palaeontology group with great distinction for many years.

Bernard was a great supporter of AASP and, in 2011, was awarded Honorary Membership at the Annual Meeting in Southampton. A full obituary of Bernard will follow in due course.

Randall Penney (1951-2019)

By Graham Booth and Gordon Forbes



Photo: Randall Penney

Education and career

Randall Alexander Penney was born in December 1951 and grew up in Blackrock, County Dublin, Ireland. He was the eldest son of Norman and May Penney. He completed a BA Honours degree in Natural Sciences at Trinity College Dublin in 1976 and an MS at Toronto University in 1979. It was this latter degree, which was gained through the study of palynomorphs from Quaternary lake sediments of Ontario that was to set Randall on his palynological career path.

His first employment was as Laboratory Manager and Research Assistant at TCD's Applied Geology Unit. He was responsible for organising the laboratories and supported the palynological scientific work programme, which was designed to establish the palynostratigraphy of petroleum exploration wells drilled in Irish waters.

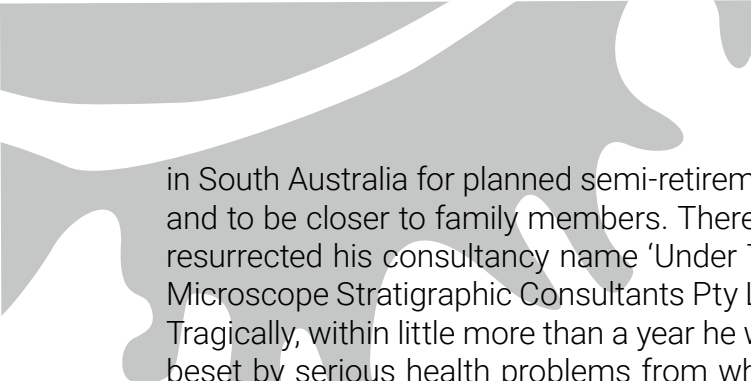
In 1988 he moved to Gearhart Geo Consultants (subsequently Halliburton Reservoir Description Services) in Aberdeen, where he

was employed as a Senior Geoscientist. He was involved in the palynological study of exploration and development wells drilled on UK and Norwegian continental shelf. His work programme also included well sections from West Africa and the Middle East, which enabled him to diversify his palynological skills. It was during the early 90s, via a Halliburton RDS contract, that Randall first spent time working in the offices of Petroleum Development Oman LLC (PDO). Following the takeover and closure of the Halliburton office in early 1994, Randall became an independent consultant. Trading in Aberdeen as 'Under The Microscope Stratigraphic Consultants Ltd' the majority of his work continued to come from PDO.

This was the precursor to the twenty-two years, which Randall then spent in Oman (1995 - 2016) working mostly through sponsors but employed almost exclusively by PDO. During this period, he made a very significant contribution to updating the palynostratigraphy, particularly of the Haushi Group sediments, and undertook many complex regional reviews for the exploration and development teams, which assisted the understanding of source rock and reservoir distribution. This was partly achieved through upgrading the Haushi palynological biozonation scheme, which involved painstaking evaluation of many hundreds of palynological preparations. He was much respected by the exploration and development teams, who keenly sought his views on the stratigraphy of their wells. Many successful wells, both E & D, owed a debt to Randall's quality work.

Those who had the opportunity to work with Randall will know that any day spent with him in the office was always a good day, and one that would invariably bring a smile to your face. He could be a frustrating colleague to work with, but such was his nature that it was impossible to be annoyed with him for any length of time.

Randall left Oman in December 2016 for Gawler



in South Australia for planned semi-retirement and to be closer to family members. There he resurrected his consultancy name 'Under The Microscope Stratigraphic Consultants Pty Ltd'. Tragically, within little more than a year he was beset by serious health problems from which he never recovered. He died peacefully on March 15th, 2019.

During his career Randall authored or co-authored fifteen palynological publications.

Astronomy, Art, Music and more

To only describe Randall's career would be to describe but half the man. He was a true polymath with wide ranging knowledge and interests. Astronomy, classical music, botany/gardening, financial/precious metals markets were but a few of the topics that Randall could, and would, talk about at length and with authority. Many of us benefitted from his garden parties, excellent cooking skills, overall hospitality and generosity.

He showed early promise as an artist but pursued this as a hobby rather than with any career intent. He was passionate about music; he played the piano and with his memorable bass voice was a prominent and supportive member of the Muscat Singers. He regularly travelled from Muscat to Dubai to take part in orchestral and choral concerts, and after the opening of the Royal Opera House in Muscat in 2011 he rarely missed a performance during the concert season.

Perhaps Randall's greatest contribution to expatriate life in Muscat was his monthly astronomy camping trips into the beautiful interior of Oman. He was the proposer and a founding member in 1996 of the Ras Al Hamra Astronomical Society and was its chief astronomer and chairman for many years. These trips were very popular weekend family outings, involving a convoy of twenty or more 4WD vehicles, which Randall would lead to selected remote sites. In the evening he would

entertain the group with his encyclopaedic knowledge of the starlit skies and demonstrate astronomical events using his famous military-grade laser pointer and large, carefully conveyed telescopes, with the assistance of a team of willing and loyal helpers.

Those fortunate enough to have known Randall will never forget his energy, passion and generous unwavering spirit. He was such an endearing man and we have all lost a good friend. We offer our sincere condolences to his brothers Russell, David and Gordon and to his sister Jenny and all other family members.

News from...

India

By Nivedita Mehrotra

There was all in all excitement among the Quaternary Palynologist and the other Quaternary researchers across India to attend the INQUA (International Union for Quaternary Research) meeting held in Dublin, Ireland during 25th -31st July 2019. There were quite a number of Indian researchers who participated in the meeting. India was for the first time bidding to host INQUA 2023 to be held at Lucknow India. Though we lost the bid to Italy but this has not brought down our enthusiasm to bid again for INQUA 2027.

It is a proud privilege for me to inform that a renowned senior female palynologist Dr. Anupama Krishnamurthy, from the Institut Français De Pondichéry, Pondicherry India, is now the President of the Human and Biosphere Commission (HABCOM) (2019-23term) of INQUA. A researcher in Palynology and Paleoecology at the French Institute of

Pondicherry, India she has more than 25 years of experience. Her areas of expertise include Pollen and Phytolith studies, Quaternary Paleoecology, Archeopalynology, Melissopalynology, Aeropalynology and Tropical Forest Ecology. Understanding and quantifying the vegetation changes in the Indian subcontinent with reference to changes in climate (specifically the monsoon) and with reference to human impacts which go back several millennia in this part of the world, forms the major thrust area of her present research.



Photo: Dr. Anupama Krishnamurthy

Delineating methodological challenges in Tropical Palynology and Paleoecology using multiple proxies and a trans-disciplinary approach building collaborations with human sciences, particularly Archaeology in the framework of Anthropocene are big constraints in the tropics, and these are precisely the areas of interest. She has been having an active engagement with international networks such as PAGES, especially the LandCover6K working group, since 2015.

It is also an honor to inform that I was also elected as the Early Career Research Committee Representative of the Palaeoclimates Commission (PALCOM) of INQUA (2019-

23 term) and am extremely humbled for being given this exciting position. The Indian palynologists have been recognized at an international platform, hoping to bring more accolades to our palynologist community.

This is the news and buzz from India and I am hoping to see many of you at the 36th International Geological Congress 2020, New Delhi, India. More information at <https://www.36igc.org/>.

South America

By Andrés Pardo (on behalf of Damián Cárdenas and Felipe de la Parra)

This year, the paper entitled "Quantitative morphologic evaluation of two key biostratigraphical taxa for the Cretaceous–Paleogene boundary in northern South America" was published in the journal *Grana*. In this paper, Cárdenas et al. quantitatively evaluated the morphology of two closely related fossil angiosperm pollen: *Echitriporites trianguliformis* and *Echitriporites suescae* comb. nov. The authors analyze several morphological traits in 75 pollen grains throughout the Maastrichtian–Danian interval using traditional and geometric morphometrics, as well as propose a new approach to quantify the degree of curvature of triangular pollen grains (index of pollen curvature [IPC]). Their results highlight the suitability of both geometric morphometrics and the IPC to overcome difficulties in differentiating morphologically similar taxa based solely on standard qualitative terminology and quantitative measurements of specific characters. This paper, therefore, demonstrates the applicability of quantitative morphometric techniques in palynological studies, which have been seldom used by palynologists.

Meetings Reports

52ND ANNUAL MEETING OF THE AASP – THE PALYNOLOGICAL SOCIETY

By Stephen Louwye

The 52nd Annual Meeting of the AASP – The Palynological Society was held in Ghent, Belgium from June 30 to July 5. The conference took place at 'Het Pand', Ghent University's main conference venue, right in the middle of the historical city center of Ghent, located in a former medieval Dominican monastery. The conference was hosted by Stephen Louwye and Thijs Vandenbroucke, both from Ghent University, with the kind and much appreciated help of its PhD students and technical staff (thanks to Julie, Sabine, Tim, Annelies, Thomas, Daan, Pjotr, Pieter, and Wim). The conference included a three-day scientific program, a conference dinner, business luncheon, icebreaker, and a pre- and post-meeting field trips.



Photo 1. 52nd AASP - TPS Annual Meeting Opening Ceremony.

The conference started on Sunday with a pre-meeting field trip to the Frasnian type area for a visit to an abandoned red marble quarry, known as the mud mound of Beauchateau. After lunch at Chimay and a taste of the famous abbey beer, the trip continued with the exploration of

the Malogne underground phosphate quarry where *in situ* hainosaures were discovered. The museum at Bernissart showcases a complete skeleton of an *Iguanodon bernissartensis* alongside with other Mesozoic marine reptiles. The field trip ended on Sunday evening just in time for the Outgoing Board meeting held in the Sacristy of "Het Pand".



Photo 2. Icebreaker at "Het Pand".

The technical sessions were scheduled from Monday to Wednesday evening, holding 72 talks and covering the stratigraphical column from the Precambrian to the Quaternary (to check in detail go to <https://palynology.org/aasp-2019-meeting/>). Alongside with the General Palynology Session, four dedicated sessions were also organized: Analytical Palynology, Integrative Cenozoic palynology, Teratology in palynology, and CIMP session – Paleozoic palynology. The latter was a special session honoring the career of Jacques



Photo 3. Post-meeting fieldtrip delegates.

Verniers. The *laudatio* was presented by Reed Wicander. Twenty-one posters were also presented during the coffee breaks and lunches. They were discussed while enjoying snacks, sandwiches, and drinks, in a relaxed atmosphere.



Photo 4. Reed Wicander presenting Jacques Verniers *laudatio*.

The icebreaker was held on Monday late afternoon, in the sunny monastery garden, and was followed by the early career night

activity. A much-appreciated initiative led by AASP - TPS Student Director-at-large Julia Gravendyck! Almost all delegates attended the conference dinner on Tuesday evening at Het Pakhuis – a restored warehouse. The business luncheon was traditionally held on the last day of the meeting in the restaurant of Het Pand. Gunn Mangerud presided over the official business and at the end, she handed over the Gavel and Robert's Rules to the incoming president Katrin Ruckwied. Dr. Martin B. Farley was awarded the AASP Distinguished Service Award. The other meeting awards were presented by Katrin Ruckwied late Wednesday afternoon. Julie De Weirde won the L.R. Wilson Student Paper Award for best presentation, while Martha Gibson and Tim De Backer were runners-up. Daan van der Velden won the award for the best poster presentation.

The meeting ended with a two-day field trip to the Jurassic and Cretaceous of northern France. The field-trip was attended by fifteen delegates and all were treated to unusual nice weather.



Photo 5. 52nd AASP - TPS Meeting Group photo.

1ST AASP - TPS EARLY CAREER NIGHT

By Julia Gravendyck, Student Director-at-Large

When you attend a conference as a Bachelor-, Master- or PhD-student, it can be rather intimidating to meet all the 'big names'. Especially when it is one of your first conferences, you may feel a bit left out while all the established researchers meet, waive and hug each other. When I attended the Calgary meeting last year as the new Student Director, we were only a small group but by chance, all the 'early careers' amongst us went to lunch together on the first day of the conference. It was a perfect opportunity to meet all the other young ones, to get to know each other and share experiences with peers.

At the end of the meeting, I asked student members what they would expect from their representative. Their quick answer was a meeting like that on the first day, where you meet all your fellow 'early careers', i.e. the other Bachelor-, Master-, and PhD-students, as well as those that recently finished, and have started their first or second Postdoc, so they can share their experiences and useful tips. Thus, for the Ghent Meeting in 2019, I looked for a venue and sponsors for the first AASP-

SPONSORED BY



Early Career Night.

Thanks to the generosity of **Amphasys** and **SEPM**, this endeavor became a reality and the informal gathering was, I believe, a great success!

On the first evening of the conference, after the ice-breaker, all the early careers strolled through the heart of Ghent. While the 'big names' hypothesized what we

might be doing and already conspired about an anti-meeting, we went to the well-known bar 'Vooruit' (Belgian for forward (!)). Thanks to our sponsors, we had a simple yet very good meal accompanied by the famous Belgian beer and, more importantly, a tremendous opportunity to get to know



Photo 1. Early Career Night participants. (Credit: Liquin Li)

everyone.

The stroll to the bar itself had already mixed the group a little. Now, everyone was asked to sit in alphabetical order according to their first name. After the meal, everyone had to move again now sitting with their peers working on the same time-interval. After this mix-up and a beautiful evening of chat, most of us knew the names and subjects of one another. The next morning, it was beautiful to see everyone waving to each other or giving a welcoming hug. I didn't feel left out as I had met my peers from the conference in the previous evening. Some even told me that thanks to the chat with the others from their time interval, they had already solved a long-standing question in one of their projects.

I believe that networking events like these are crucial for all of us. Future networks are built, keeping our discipline alive, helping to build future collaborations. After all, we are the generation of tomorrow. Thus, I would like to thank again to all the participants for a lively exchange, and especially our sponsors

Amphasys and **SEPM**, for allowing us to have a wonderful networking event.

I encourage all of you to come to the 2nd Early Career Night in Baton Rouge 2020. Invite your fellow students for a free meal and drink, to meet new colleagues and future friends.

Looking forward to seeing you in Louisiana next year!

In the meantime, should you have any questions or want to share something, join our Facebook group **AASP | The Palynological Society – EARLY CAREER**.



Photo 2. Early Career Night participants. (Credit: Julia Gravendyck)

19TH INTERNATIONAL CONGRESS ON THE CARBONIFEROUS AND PERMIAN ICCP 2019

COLOGNE, JULY 29 – AUGUST 2, 2019

By Annette E. Götz & Gilda Lopes

At the end of July, more than 200 geoscientists from 27 countries working on the Late Palaeozoic met in Cologne, one of the oldest cities of Germany, located close to the famous geological sites of the German Rhenish Mountains and the Ruhr area. The scientific sessions covered the entire range of current

research from stratigraphy to energy resources, from palaeogeography to climate change, and from marine to terrestrial ecosystems. Each day, keynotes started the morning and afternoon sessions, presenting cutting edge research related to global correlations, Late Palaeozoic climate patterns, Pangaeon geodynamics, energy resources, and basin development. Pre- and post-conference fieldtrips also highlighted Europe's excellent Carboniferous and Permian outcrops from the Rhine valley to the Alps.

Hans-Georg Herbig and his team did a great job to make this meeting a memorable event, including the welcoming atmosphere

that lasted throughout the conference held at the University of Cologne. The same amazing atmosphere was felt during the congress dinner served on the river Rhine, cruising along the impressive waterfront

of Cologne – and enjoying Kölsch! Many thanks to the colleagues from Cologne! And see you all in 2023 at the 20th ICCP in Toulouse, France!



Photo: 19th ICCP Group photo. (Credit: Felix Lüddecke, University Münster)

New Publication...

THE LITERATURE ON TRIASSIC, JURASSIC AND EARLIEST CRETACEOUS DINOFLAGELLATE CYSTS (VERSION #1 - MAY 2019)

By Jim Riding

Jim Riding began to compile the literature on Triassic to earliest Cretaceous dinoflagellate

cysts in 2010, and a substantial compendium was published (Riding, 2012). Since that time he has continued this exercise, and four supplements to Riding (2012) have been issued in *Palynology*. Hence there are five published alphabetical/chronological listings of items on this topic. In order to provide a single document which includes all 1878 articles, books etc. etc., the literature listed has been consolidated into a single document. This digital publication can be freely downloaded from the Publications tab of the AASP website as a pdf file. No printed copies will be made available. The pdf file is of

course searchable, and it is hence very easy to find contributions on specific stratigraphical intervals and/or geographical regions based on the keywords for each item.

All members of the association are invited to download this file. We hope to issue further updates of this document as appropriate in the future. If you wish to ensure that your work, or your colleague's work, is included please send any new papers to Jim at jbri@bgs.ac.uk.

Reference

Riding JB., 2012. A compilation and review of the literature on Triassic, Jurassic, and earliest Cretaceous dinoflagellate cysts. American Association of Stratigraphic Palynologists Contributions Series, No. 46, 119 p.



Photo: *Gonyaulacysta fenestrata*.

Palynologists going famous...

A piece on palynology and its importance for the U.S. government was published on the Washington Post last August. Our colleague Sophie Bart's former student, Shannon Ferguson, is also mentioned. The news entitled *Pollen "nerds": U.S. government enlists scientis to track drug loads, crack cold cases* is available at the Washington Post website.

Save Lyell Notebooks

This is a request sent to Jim Riding by Beatrix Esk, Philanthropy Projects Officer at The University of Edinburgh. We urge all AASP - TPS members to help, if possible!

"The University of Edinburgh is currently trying to acquire the scientific notebooks of the great geologist Sir Charles Lyell. The collection has been described by Professor James Secord (University of Cambridge), Professor Charles Withers and Geographer Royal for Scotland as "Perhaps the most important scientific collection still in private hands."

Sir Charles Lyell was widely recognised in his day as one of the world's foremost scientists and is regarded as one of the founders of modern geology and earth sciences. Largely unpublished, this substantial and almost entirely complete collection of notebooks provides evidence of Lyell's influential thinking and the development of his ideas on a wide range of scientific and social topics including geology, evolution, climate change, slavery, educational reform and the role of women in science. Lyell was a colourful speaker having

a broad influence on the general public and on fellow scientists, including Charles Darwin.

You and your Society could help with the University's efforts to save these notebooks. If you were able to share this information and our web address: <https://www.ed.ac.uk/giving/save-lyell-notebooks> with your members, or tweet using #SaveLyllNotebooks (...) we would be very grateful. We're confident that if enough relevant people learn about this exciting opportunity we can get enough support to succeed. (...) If we are successful in saving Lyell's notebooks we plan on making them fully and freely accessible; physically in our centre for research collections and in UK and international exhibitions, but also digitally and online; so that everyone can benefit from this unique and remarkable geological archive.

Thank you in advance for anything you and your Society can do to help.

Beatrix Esk
Philanthropy Projects Officer
Development and Alumni
The University of Edinburgh
Charles Stewart House
9-16 Chambers Street
Edinburgh
EH1 1HT
+44 (0)131 650 9262
beatrix.esk@ed.ac.uk
www.ed.ac.uk/alumni

Science and Art...

ALAIN MAILLAND

By Graham Dolby

Alain Mailland is a French woodturner who, I think, pushes his craft to the limit and carves stunning sculptures. He calls this piece "Pollens" and I thought it might interest palynologists. This stunning piece was turned and carved from a single chunk of hackberry and measures 64cm x 31cm, and is illustrated in the June issue of the "American Woodturner" magazine.



Photo: Alain Mailland "Pollens" (taken from: <https://mom.maison-objet.com/en/product/7944/pollens>)

This piece is advertised for sale at this website: <https://mom.maison-objet.com/en/product/7944/pollens>, as well as on the

Pinterest site of Alain Mailland's work: <https://www.pinterest.ca/KenExline/mailland-alain/>.
It was in an exhibition in North Carolina this

summer. Check here to read more on the exhibition: http://bluespiral1.com/Exhibit_Detail.cfm?ShowsID=248.

New Generation...

A longtime AASP member provided the following photo while three granddaughters and their Mom visited us this summer. Ivy, the soon to be three year old when this photo was taken, took naps and slept in a "pack & Play portable crib we set up in our office while she was here. One morning we went into the office to get her up and saw that she must have reached over to the desk and retrieved my copy of the Kapp Pollen and Spores book, because we found the book in her bed. We were not sure how many pages she had read, but we did not give her a written test!



Photo: Ivy with the *Pollen and Spores* book.

Call to Serve Newsletter open positions



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

Current vacancies include:

- BOOK REVIEW EDITOR
- ASIA CORRESPONDENT
- UNITED KINGDOM CORRESPONDENT

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 2016 "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, 2018**.

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.

2018 AASP Foundation Century Club Contribution Form

Mail to: Robert T. Clarke, Treas.
AASP Foundation
3011 Friendswood Dr.
Arlington, TX 76013-2033

Name: _____

Address: _____

Contribution Enclosed: \$_____ I wish to pledge: \$_____

Upcoming AASP – TPS Meetings



2020

53rd Annual Meeting of the AASP - The Palynological Society

Baton Rouge, Louisiana, USA

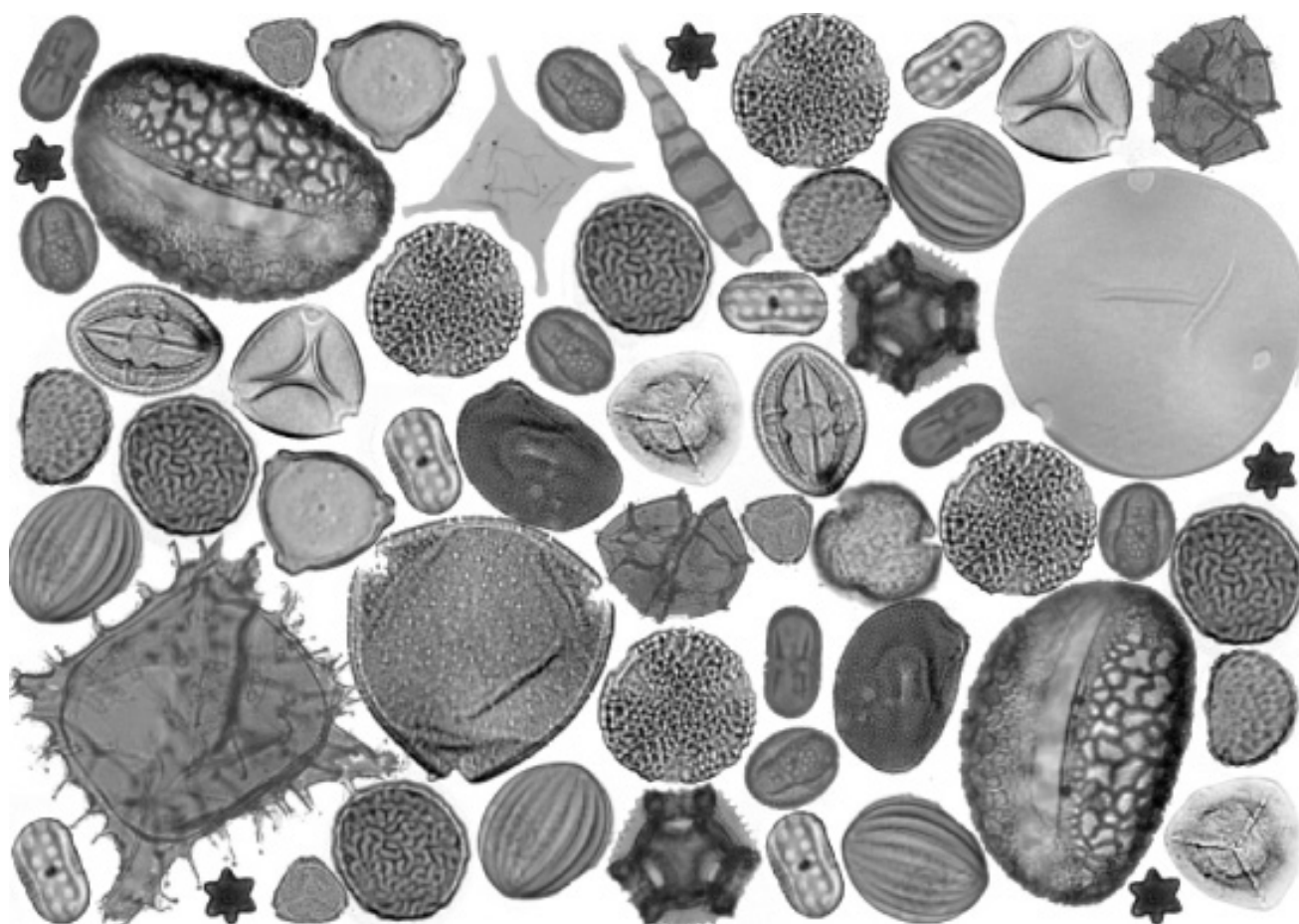
Organizer: Sophie Warny, Kam-Biu Liu & Sibel Bargu

2021

54th Annual Meeting of the AASP - The Palynological Society

Manizales, Colombia

Organizers: Ingrid Romero, Angelo Plata & Andres Pardo





53rd AASP – TPS ANNUAL MEETING at LSU, Baton Rouge, Louisiana (May 26-30 2020)



LSU

Louisiana State University

The 53rd annual meeting of the AASP – The Palynological Society will be held on the beautiful campus of Louisiana State University, in Baton Rouge, Louisiana between Tuesday, May 26th and Saturday, May 30th 2019.

Note that this is unusually early for our society's annual meeting, but this is a necessary decision to avoid holding the meeting during hurricane season.

The meeting will be convened by Sophie Warny from CENEX (LSU Department of Geology and Geophysics) along with Kam-Biu Liu and Sibel Bargu Ates from the LSU College of the Coast & Environment.

We are looking forward to welcoming you to our beautiful campus and the unique ecosystems of the great state of Louisiana.



The tentative agenda for the meeting is as follows:

Tuesday, May 26 2020

Pre-conference field trip to Mississippi delta and marshes thanks to a partnership with LUMCON, in Cocodrie, Louisiana (see picture above). We reserved the 58 feet R/V Acadiana and will take participants to Terrebonne Bay.

Ice breaker

Wednesday, May 27 2020

Technical meeting

Tour of CENEX facilities and LSU MNS collections

Thursday, May 28 2020

Technical meeting

Conference dinner at Nottoway Plantation.

The dinner will include a 5-course menu designed to share Louisiana's unique cuisine with our international guests.

Friday, May 29 2020

Technical meeting

Saturday, May 30 2020

Post-conference field trip to Louisiana swamps and visit of the Tabasco plantation, located on a salt dome.



Nottoway Plantation is a magnificent 1850's sugar-cane estate, and is the home of the South's largest existing antebellum mansion, now stunningly restored to its original architectural design.

Nottoway's Mansion Restaurant offers classic Louisiana cuisine, Creole-inspired, with outstanding service and stunning views of century-old oak trees.

The 3-day sessions will include various palynological topics such as:

- a) Paleo-climate and paleo-environmental reconstruction.
- b) Phytoplankton as indicator of water quality from past to present (HABs, etc.).
- c) Holocene coastal palynology and paleotempestology
- d) A Paleozoic Palynology session in memory of Gordon Wood, with a focus on Permian to honor Dr. George Hart, LSU Alumni Professor and one of the founding fathers of AASP.
- e) The importance of palynology for biostratigraphy and biosteering.
- f) Forensic palynology and melissopalynology.

Airports:

Our campus is located in Baton Rouge, Louisiana. The most convenient airport (located about 15 to 20 minutes from campus by car) is the Baton Rouge airport.

The New Orleans airport often has lower fare flights, but this airport is located about 1.5 hours from our campus, and public transportation is not adequate at the moment. Renting a car would be necessary to travel to Baton Rouge.

Hotels:

We will not be signing a contract with a specific hotel as there are many lodging opportunities on and around campus. We highly recommend the LSU campus hotel: The Lod Cook (see image below).

It has free on campus parking, a gym, swimming pool, complementary breakfast and wifi, and it is about a 20-minute walk to the auditorium where the conference will take place. The hotel is also on the free LSU bus route (we will need to confirm whether or not the bus operates in May).

Space is limited at that hotel, so we encourage you to book immediately.

<http://www.thecookhotel.com/>





Details on post-conference fieldtrip:

The post-conference field trip will take the participants about two hours west of our campus, towards Lafayette, Louisiana.

We will first visit the world famous Tabasco plantation and factory on Avery Island. This will include a visit of their garden with a botanist. He will share with us the many Louisiana native species. The Tabasco plantation is located on a salt dome amongst the marshes

- thus the site name of Avery "island". Salt is actively being mined at that location.

We will then have lunch at the Tabasco restaurant, well known for its cajun meals.

We will finish the day by immersing guests into Louisiana's beautiful, vast, and mysterious Atchafalaya swamp where guests will view alligators, diverse populations of birds, and navigate in the middle of Louisiana's swamp cypress.



MARK YOUR AGENDA!

**The 53rd AASP CONFERENCE WILL BE HELD MAY 26-30, 2020
ON THE BEAUTIFUL LSU CAMPUS, IN BATON ROUGE, LOUISIANA**

The campus is located about one hour west of New Orleans.

The conference will be hosted by
the Center for Excellence in Palynology (CENEX) and
the Center for Energy and Environment at Louisiana State University

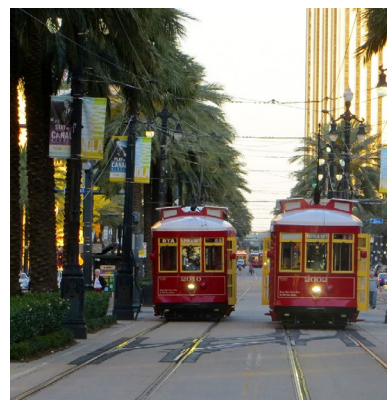
If you have any questions, contact:

Sophie Warny at swarny@lsu.edu
Sibel Bargu Ates at sbargu@lsu.edu
Kam-Biu Liu at kliu1@lsu.edu



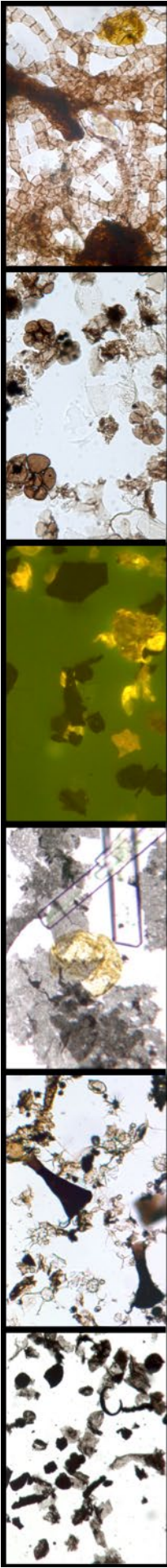
LSU

Louisiana State University





Other Meetings and
Workshops of Interest



CIMP sponsored

International Course on Organofacies Analysis

Sedimentary Organic Matter Principles & Applications

September 30 - October 04, 2019

University of Erlangen

5 days of lectures and practical microscope exercises.

Participants can bring own slides to discuss at the last day

Course language is English

General principles of palynology in its widest sense and its applications in facies analysis, sequence stratigraphy and hydrocarbon generation. Basic knowledge in palaeontology, facies analysis or hydrocarbon systems is useful, but not mandatory.

Course outline

- **Principles of sedimentary organic matter**
Production, distribution and preservation of sedimentary organic matter
- **Groups of organic matter (Palynomorphs and more)**
Marine and terrestrial derived sedimentary organic matter
- **Application for facies & sequence stratigraphical analysis**
General introduction to facies development and sequence stratigraphy
Composition & preservation of sedimentary organic matter related to palaeo-environmental analysis (Palynofacies analysis)
Palynofacies analysis applied to sequence stratigraphy
- **Application for basin analysis & hydrocarbon generation**
Thermal alteration of sedimentary organic matter (maturation)
Classification of organic matter in Hydrocarbon systems (kerogen types)
Hydrocarbon potential based on optical kerogen analysis & organic maturation

For more information contact:

Dr. Hartmut Jäger (jaeger@georesources.de)

GeoResources STC, Leimen, Germany

www.georesources.de



Biostratigraphy Seminar 2019

Advances in Integrated Biostratigraphy

29th – 30th October 2019

Valhall auditorium, NPD Stavanger



Abstract deadline: 29th June



Prizes will be awarded for the best student presentations



Keynote speakers:

Professor Felix Gradstein, NHM Oslo
Dr Robert Williams, NPD

How to use integrated biostratigraphy to enhance exploration, production, and research activities on the Norwegian Continental Shelf

www.npd.no/force/events/





THE MICROPALAEONTOLOGICAL SOCIETY ANNUAL CONFERENCE 2019

**BRITISH GEOLOGICAL SURVEY, KEYWORTH, NOTTINGHAM, UK
WEDNESDAY 13TH AND THURSDAY 14TH NOVEMBER 2019**

FIRST CIRCULAR – JULY 2019

The 2019 TMS annual conference will be held at the British Geological Survey (BGS), Keyworth, Nottingham NG12 5GG on Wednesday the 13th and Thursday the 14th of November 2019.

The format of this conference is slightly different to that of recent meetings in that it will begin on the morning of the opening day (as opposed to after lunch). This is because the first day (Wednesday 13th November) is entirely given over to a symposium entitled *Biostratigraphy: a 21st Century Science* which is being convened by TMS with the support of SEPM, the Petroleum Exploration Society of Great Britain (PESGB) and the Petroleum Group of the Geological Society. This part of the conference is focussed on data science and we hope to showcase the applications of machine learning and automation to biostratigraphy. By contrast, the second day (Thursday 14th November) will be entirely given over to open talks on any aspect of micropalaeontology, as per our normal format.

The committee will meet late afternoon/early evening on Tuesday 12th of November, we will conduct our regular 'Society Business' (awards, reports etc.) on the late afternoon of

Wednesday 13th November and there will be a drinks reception followed by an optional conference dinner (£50) immediately following the ‘Society Business’.

The convenors, Jim Riding and Mike Simmons, look forward to welcoming you to the headquarters of BGS for this two-day meeting. We hope to make this annual conference especially memorable because of the focussed and topical nature of the symposium on *Biostratigraphy: a 21st Century Science*. This is the first circular, and we will update it regularly between now and the meeting itself.

We recommend that you obtain accommodation in the Premier Inn Nottingham City (Chapel Bar), or any of the many other city centre hotels in downtown Nottingham. Delegates will be expected to arrive at BGS on the morning of Wednesday 13th November by their own means. However, bus transport will be provided from BGS HQ to the venue of the conference dinner (Trent Bridge cricket ground) on the Wednesday, and from the city centre to BGS on Thursday by bus as part of the registration package. BGS is located in the large village of Keyworth which is ~9 km south of central Nottingham. Public transport (buses and taxis) are of course available. Morning tea, lunch and afternoon coffee are also included in the registration package.

If you would like to discuss sponsorship etc., or have any questions whatsoever, please get in touch with Jim Riding (jbri@bgs.ac.uk), Mike Simmons (Mike.Simmons@halliburton.com) or any TMS committee member (committee@tmsoc.org). We hope to welcome you to Keyworth for the TMS Annual Conference in November!

Please note that there is a limit on numbers of 110, that being the capacity of the BGS Conference Room where the main sessions will take place. If there are in excess of 110 delegates, we would levy a much reduced registration fee and set up a remote link to the proceedings immediately outside the conference suite. Therefore, the strong message would be to sign up in good time if you wish to guarantee your place. You should register online at: <https://www.tmsoc.org/tmsoc2019/>. See below for full details.

1. REGISTRATION

Category	Cost of Registration
TMS Member Waged	£50
TMS Member Unwaged/Student	£25
Non TMS Member Waged	£60
Non TMS Member Unwaged/Student	£40
Conference Dinner	£50

Registration comprises:

- A conference pack including a pdf file of the abstract volume (bring your laptop!)
- Transport between BGS, Keyworth and the venue of the conference dinner (i.e. in or near Nottingham city centre) after the symposium and drinks reception on Wednesday and from Nottingham City Centre and BGS on Thursday morning.
- Morning coffee/tea, lunch and afternoon coffee/tea on both days

- A drinks/nibbles reception at BGS following the first day of the conference, Wednesday, 13th November

The Conference Dinner:

The conference dinner is optional, and will be held in the 'Boundary Edge' Restaurant at Trent Bridge, the home of Nottinghamshire Cricket Club, Nottingham on the Wednesday night. The price is £50 per head, and this will include (some) beverages.

To register, please go to <https://www.tmsoc.org/tmsoc2019/>. Here you will find full details of how to pay using this secure website in GB Pounds Sterling via PayPal. The former URL is on the TMS website (<http://www.tmsoc.org/>). Should you be unable to register via this secure website, please mail a cheque for the registration package you choose, and the conference dinner if you require (make these clear in a covering letter) to Jim Riding (address: BGS, Keyworth, Nottingham NG12 5GG, UK). Please make cheques payable to THE MICROPALAEONTOLOGICAL SOCIETY. If you wish to pay outwith the TMS website using a credit or debit card, send your card details to the TMS Treasurer, Manuel Vieira, at treasurer@tmsoc.org for processing. You can also pay TMS direct using online banking or BACS/SWIFT payments; email the TMS Treasurer, Manual Viera, for the account details. In all cases, please indicate your name, and precisely what you are ordering. Hopefully we have provided a variety of methods for paying your registration charges.

If you have any questions regarding registration, or any aspect of the conference, email Jim Riding on jbri@bgs.ac.uk.

2. CONFERENCE PLAN

Tuesday, 12th November: In the late afternoon (probably starting at around 15.00 h), the TMS committee will meet at a conference room in downtown Nottingham (venue to be arranged).

Wednesday, 13th November:

A symposium entitled *Biostratigraphy: a 21st Century Science* as described above, followed by 'Society Business' (awards, reports etc.). Immediately afterwards, there will be a drinks reception followed by the optional conference dinner at Trent Bridge (transport from BGS provided).

Thursday, 14th November: Laid on buses will depart for BGS from the Premier Inn Nottingham City (Chapel Bar), 7 Chapel Quarter, Maid Marian Way, Nottingham NG1 6JS at 08:10 h. This day will comprise open talks on any aspect of micropalaeontology, as per our normal format.

3. TRAVELLING TO NOTTINGHAM (AND BACK)

All UK residents will be fully aware that the fair city of Nottingham is one of the most accessible in the country, being situated in the centre of England and slap bang on major road and rail links. See <http://www.experiencenottinghamshire.com/nottingham>.

Overseas visitors can fly to Birmingham, East Midlands, London or Manchester airports. Any of the several London airports are absolutely fine. All these airports allow for efficient rail travel to Nottingham except for the most local one, East Midlands (EMA). If you go to EMA, take a cab/taxi or bus (Nottingham Skylink; see <https://www.trentbarton.co.uk/services/skylinknottingham/welcome>) to Nottingham.

Long haul travellers are most likely to arrive at Heathrow or Gatwick airports in London. In this case, simply take the rail shuttle (Heathrow or Gatwick Express) to central London and head on the metro/underground for St Pancras mainline station (this is at Kings Cross/St Pancras metro/underground station). From St Pancras, frequent and fast trains will whizz you to Nottingham in just a couple of hours. If you have any questions about travel to Nottingham, email Jim Riding (jbri@bgs.ac.uk).

4. ACCOMMODATION

We recommend that you use either the Premier Inn Nottingham City (Chapel Bar), 7 Chapel Quarter, Maid Marian Way, Nottingham NG1 6JS (Tel: 0871 527 9658; or see <http://www.premierinn.com/gb/en/hotels/england/nottinghamshire/nottingham/nottingham-city-centre-chapel-bar.html>). This is a “nice but not too pricey” city centre hotel very close to great bars, historic sites, restaurants etc.

There are no group rates available at the Premier Inn so the best way to book is online; please do ensure you book their Chapel Bar Hotel – there are two other Premier Inns in Nottingham!

However, other accommodation is of course available; there are many hotels and apartments in the city including representatives of the major well-known chains such as Ibis, Jurys Inn, Park Plaza, Premier Inn, Ramada, Strathdon, Travelodge etc. Check out the respective websites.

5. LOCAL TRAVEL

Travel between BGS and central Nottingham and return (as outlined above) is provided, but we appreciate you might need to go your own way. The village of Keyworth is located around six miles (~9 km) south of central Nottingham. A cab/taxi will cost around £15 one way from downtown. Other public travel solutions are also available. From Nottingham, you can catch a bus to Keyworth, the *Keyworth Connection* (<https://www.trentbarton.co.uk/services/keyworth>) which runs from central Nottingham (Mount Street Stop X1 and Nottingham Crown Court C11/C12). This bus route travels through the suburb of West Bridgford and on to Keyworth. A single journey costs around £3 and takes about 25 minutes, depending on traffic.

6. THE SCIENTIFIC PROGRAMME

Delegates may submit abstracts from now (see: <https://www.tmsoc.org/tmsoc2019/>). The deadline is Friday, 13th September 2017. You may submit oral presentations or present a poster. You can also email abstracts to jbri@bgs.ac.uk and Mike.Simmons@halliburton.com.

The local organising committee:

James B. Riding

Jan A.I. Hennissen

Maria Wilson



Since 2009, the world community of palynologists and palaeobotanists has met every four years to discuss the latest research, and to exchange experiences. The 15th International Palynological Congress (IPC-XV 2020) and the 11th International Organisation of Palaeobotany Conference (IOPC-XI 2020) are coming soon. This joint congress will be held in Prague, from the 12th to the 19th of September 2020, hosted by Czech palynologists and palaeobotanists. In 1820, a binomial nomenclature for fossil plants was used for the first time by the “Father of Palaeobotany” Caspar Maria Sternberg, when publishing *Flora der Vorwelt*. We are delighted to dedicate this meeting in honour of 200 years of Palaeobotany.

It will be an excellent opportunity for the Czech Republic (a country rich in plant fossil finds, palynological sites, and palynological and palaeobotanical history) to host the leading experts in various disciplines, and to promote scientific innovations. Joint symposia are planned to foster interaction and integration between palynologists and palaeobotanists, as well as plenary sessions of general interest. The meeting is promoted by the collective efforts of the International Federation of Palynological Societies (IFPS) and the International Organisation of Palaeobotany (IOP).

Please complete the pre-registration form on our website:

<http://prague2020.cz/registration.php>



Location

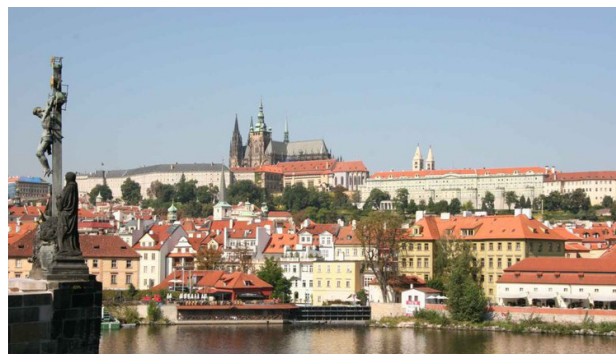
Prague is the largest city and the capital of the Czech Republic. Situated in the **heart of Europe**, it is one of the continent's most beautiful cities, and the primary Czech economic and cultural centre. It is famous for its historical monuments and sights, and has UNESCO World Heritage status. The Charles Bridge (Karlův most) across the Vltava River probably represents the city's most famous landmark. The winding course of the Vltava, with its succession of bridges and changing vistas, contrasts with the ever-present backdrop of the great castle of Hradčany (Prague Castle), which dominates the left-bank region of the city. Prague is famous for its cultural life. Wolfgang Amadeus Mozart lived here, and his Prague Symphony and Don Giovanni were first performed in Prague. In addition, the lyrical music of the great Czech composers Bedřich Smetana, Antonín Dvořák, and Leoš Janáček is commemorated each year in a music festival.

Venue

The congress will be held in the **Clarion Congress Hotel Prague**, Freyova 33, Prague 9 (<https://www.clarioncongresshotelp Prague.com/en/>). This is an international four-star hotel and a state-of-the-art conference center, providing high-quality services. The hotel is 30 minutes by car from the International Václav Havel Airport and 10 minutes by metro from the historic city centre of Prague. The conference centre is directly on the metro B line, station “Vysočanská”.

Facilities

The hotel offers accommodation in 559 rooms. All rooms and public areas are fully air-conditioned. Catering is provided in 3 hotel restaurants, which can seat 900 people. Conference facilities are divided into 23 halls and meeting rooms, comfortably seating up to 2500 participants. The facilities are equipped with state-of-the-art audio-visual technology.



Call for Symposia

It is our pleasure to invite proposals for symposia for IPC XV/ IOPC XI 2020, the joint meeting of the 15th International Palynological Congress and 11th International Organization of Palaeobotany Conference, to be held September 12th–19th 2020, at the Clarion Conference Hotel, Prague, Czech Republic

The deadline for proposals is August 31st, 2019. Proposed symposia could cover various disciplines such as palynology, palaeobotany, palaeoecology, palaeoclimatology, biostratigraphy, plant taxonomy, plant morphology, cell biology, aerobiology, allergology, melissopalynology and forensic palynology. We also welcome proposals involving cutting-edge techniques.

To organize a symposium, please prepare a “**pre-proposal**” that briefly describes the symposium in English. This pre-proposal should include the following:

1. a descriptive title;
2. one or two paragraphs explaining the purpose of the symposium;
3. a list of any possible speakers, their institutions or affiliations, and preliminary presentation titles.

Please use the attached file to submit the pre-proposal. We will accept only one symposium proposal from each individual. The length of symposium talks is 15 minutes, plus 5 minutes for discussion. Organisers of symposia may propose one invited speaker with a 25-minute long talk, plus 5 minutes for discussion. Please send the pre-proposal to the program committee (ipciopc2020@seznam.cz) and use the subject heading: IPC/IOPC 2020 Symposium proposal.

The program committee will review all proposals, and may make suggestions in view of the organization of the whole conference. For example, the committee may request merging of proposed symposia with similar topics. We also welcome workshop proposals.

More information about the IPC/IOPC 2020 is available at:

<http://prague2020.cz/introduction.php>

Scientific programme

This will cover all aspects of palaeo- and actuopalynology and palaeobotany including:

Taphonomy
Airborne pollen
Methods in palynology and palaeobotany
Pollen/Spore morphology
Pollination ecology
Forensic palynology
Melissopalynology
Quaternary palynology and palaeobotany
Cenozoic palynology and palaeobotany
Mesozoic palynology and palaeobotany
Palaeozoic palynology and palaeobotany
Proterozoic Palynology

XV International Palynological Congress
 XI International Organization of Palaeobotany Conference

200 Years of Palaeobotany

12th–19th September, 2020, Prague, Czech Republic

<http://www.prague2020.cz/>

Transport access

Transfers from the International Airport are available via the hotel's limousine service, by public transport as well as Airport Transport services. A station for the Metro B line is adjacent to the hotel. Trams and buses run outside, and a train terminal is three minutes walk away.

Practical hints

Climate

September usually brings pleasant early autumnal weather with colder mornings and hot afternoons. Temperatures of around 15-18 °C can be expected.

Transportation

Arriving by plane - Václav Havel Airport is served by many international airlines. It is located 15 km from the city center and 18 km from the conference venue. Taxi from the airport to the venue is at present about



€35. A shuttle bus service operates as well. City bus No. 119 will take you from the airport to the Veleslavín metro terminal from where you can go by metro line A to Můstek, switch to line B and go to station Vysočanská.

Arriving by rail or car

Prague is easily reached by rail or car. If you arrive by train, you will find metro stations (line C) at the Central Railway Station and at the Holešovice Railway Station. From either you can go to Florenc station and switch to line B to go to Vysočanská station.

City transportation

City Transportation Prague has a comprehensive network consisting of three metro lines, and trams and buses. Single tickets or travel passes can be purchased at most newspaper stands or from the coin machines at metro stations.

Car rental

Most of the major car rental companies (e.g. Avis, Sixt) have offices in Prague. Detailed information is available from the Symposium secretariat. We recommend making reservations in advance.

Parking

Clarion Congress Hotel has its own parking. Ask the guard at the entrance for the parking costs and the hotel parking area.

Currency

Official currency is the Czech Crown (Kč). The present exchange rate is 26 CZK for 1 Euro. Major credit cards are accepted in most shops, restaurants and hotels. You can buy Czech Crowns at banks and other authorized money exchange offices. ATMs accept most bank and credit cards. Travellers' cheques are only accepted by leading banks.

Visa Policy

Participants from most European countries and the USA can enter the Czech Republic without a visa. Other participants are advised to check requirements at their closest Czech Republic embassy or consulate, and make their own arrangements. Detail information can be found on https://www.mzv.cz/jnp/en/information_for_alien/general_visa_information/index.html. An official letter of invitation will be sent on request. Such a letter will not grant any financial support.

Insurance

The Organizing Committee does not accept any liability for personal injuries or loss or damage of property belonging to participants or accompanying persons. Kindly check your personal and travel insurance before you travel.

Electricity

Electricity supply is 220 V, 50 Hz.

Tips for Prague visitors

Honest Guide: https://www.youtube.com/playlist?list=PLM9_KZNJw8qEZd4MxOXfSvKszTJKLI_J2

<https://www.youtube.com/channel/UCt7oj318jVQi7vRbc1bNjJA>

	10 th –12 th			13 rd	14 th	15 th	16 th	17 th	18 th	19 th –20 th
8:30–10:30	Pre-Conference Field-Trip <i>(field trip will start in Dresden or Chemnitz)</i>			Oral Presentation	Oral Presentation	Mid-Conference Field-trips	Oral Presentation	Oral Presentation	Oral Presentation	Post-Conference Field-trips
10:30–11:00				Coffee break	Coffee break		Coffee break	Coffee break	Coffee break	
11:00–13:00	10 th	11 th	12 th	Oral Presentation	Oral Presentation		Oral Presentation	Oral Presentation	Oral Presentation	
13:00–14:30			Registration 11:00-18:00	Lunch	Lunch		Lunch	Lunch	Lunch	
14:30–16:30				Oral Presentation	Oral Presentation		Oral Presentation	Oral Presentation	Workshops	
16:30–17:00				Coffee break	Coffee break		Coffee break	Coffee break	Coffee break	
17:00–19:00				Ice breaker party from 18:00	Oral and poster Presentation		Oral and poster Presentation	Oral and poster Presentation	Oral and poster Presentation	
20:00–24:00					Gala “Sternberg’s” Dinner (optional)					



We look forward to receiving your submissions.

Best wishes

Organizing committee

IPC XV / IOPC XI 2020

12th-19th September 2020, Prague, Czech Republic



Pre-Conference Field Trip, 3 days:

Permian of Chemnitz

The field trip will present classical outcrops, ongoing excavations and leading exhibitions, which show fossil assemblages found in Permian terrestrial strata of SE Germany. Anatomically preserved plants, animals and their taphonomic pathways will be presented and discussed as modern methods of „fossil hunting“ and collecting. [R. Rössler]

Mid-Conference Field Trips, 1 day:

Lower Palaeozoic of the Barrandian area

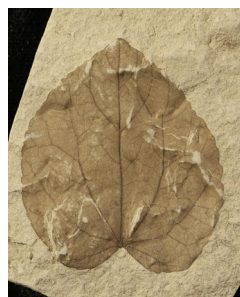
Field-trip to the Cambrian to Devonian sediments south west of Prague will give an opportunity to visit both new and classic outcrops, including the first internationally recognized GSSP of the Silurian-Devonian boundary. At all sites collection of fossils and sampling for microfossils will be possible. [O. Fatka, L. Vodička]

Late Cretaceous of the Bohemian Cretaceous Basin

A field trip to three localities: Horoušany, Vyšehořovice, Pecínov of the Czech fresh water Cenomanian will provide an overview of palaeobotany and sedimentology of the Bohemian Massif in mid-Cretaceous. At all outcrops, collecting of fossils and sampling for microfossils will be possible. [J. Kvaček]



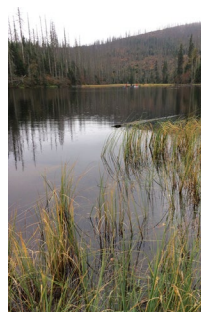
Paleogene and Neogene of North Bohemia



Eocene to Pliocene sediments are preserved in depressions and grabens along Krušné hory Mts. Besides freshwater coal-bearing deposits, products of volcanic activity occur in Western and Northern Bohemia, forming the eastern branch of the European Cenozoic Volcanic Alkaline Province. North Bohemian Most Basin will be visited with particular interest in loc. Roudníky (Eocene-Oligocene transition) and loc. Bílina (lower Miocene). [J. Sakala, V. Teodoridis]

Postglacial of Šumava National Park

This excursion will cover late Quaternary vegetation changes with focus on long-term dynamics of natural mountain spruce forests and their disturbances. We will visit investigated lakes of glacial origin and peat bogs, where results from sedimentary archives will be presented. [P. Kuneš]



First Circular / Fieldtrips

Modern pollen deposition in relation to Holocene vegetation changes in the Krkonoše Mts.

This excursion will visit our highest mountain range in NE Bohemia. In this iconic landscape, covered in its highest part by azonal tundra accompanied by many peatbogs, a long-term pollen monitoring project has been under way since 1997. We will concentrate on pollen monitoring results in relation to Holocene development of mountain tundra and mountain forest. [H. Svitavská-Svobodová]

Late Pleistocene and the Holocene of Bohemian Paradise

Barely hour and a half away from Prague, “rocky cities” built of Cretaceous sandstones offer an opportunity to enjoy picturesque, rarely seen landscapes and to visit some classical, as well as freshly investigated Late Pleistocene and Holocene sites. Emphasis will be given on stratified archaeological sites under rock shelters and adjacent wetlands which together provided a wealth of environmental proxies. [P. Pokorný]



Post-Conference Field Trips, 2 days:

Permian of Bohemia

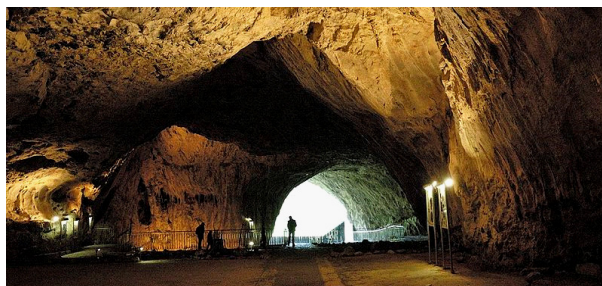
The Bohemian Paradise is situated about 100 km North-East from Prague. The Klenotnice Muzeum in Nová Paka with rich Permian fossil wood collection will be visited. A tour to the nearby Gothic „Pecka“ Castle is planned. „Pecka“ means stone (both geode and part of fruit). Fossil wood is visible in the castle courtyard. Actually, „Pecka“ Castle was built on rocks containing petrified wood in the 12th century.



Two localities with plant fossils of the Permian Rudník Horizons will be visited during the field trip, and there will be also a possibility to find some fragments of silicified woods in fields. [Z. Šimůnek, V. Mencl]

Miocene in the Carpathian Foredeep and Quarternary of Moravian Karst

The area of South Moravia known not only for Czech vineyards and wine cellars (Mikulov), but also for Miocene deposits of Carpathian Foredeep, several prehistorical localities (Pavlovské vrchy Hills, Pasohlávky settlement, Čejč Lake) and Moravian Karst with 15 palynologically evaluated caves (Kůlna Cave etc.) [N. Doláková, E. Břízová, M. Kováčová]



FIELD TRIPS

<http://www.prague2020.cz/fieldtrips.php>