AASP – The Palynological Society

Promoting the Scientific Understanding of Palynology since 1967

Merry Christmas

PROSPEROUS 2021

NEWSLETTER

Published Quarterly

December 2020, volume 53, number 4

AASP – TPS NEWSLETTER

Published Quarterly by AASP – The Palynological Society

December 2020, Volume 53, Number 4

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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.

AASP Scientific Medal recipients
Professor William R. Evitt (awarded 1982)
Professor William G. Chaloner (awarded 1984)
Dr. Lewis E. Stover (awarded 1988)
Dr. Graham Lee Williams (awarded 1996)
Dr. Hans Gocht (awarded 1996)
Professor Svein B. Manum (awarded 2002)
Professor Barrie Dale (awarded 2004)
Dr. David Wall (awarded 2004)
Dr. Robin Helby (awarded 2005)
Dr. Satish K. Srivastava (awarded 2006)
Professor Estella B. Leopold (awarded 2013)
Professor Vaughn M. Bryant (awarded 2016)
Professor David Batten (awarded 2018)

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Professor Dr. Alfred Eisenack (elected 1975)
Dr. William S. Hoffmeister (elected 1975)
Professor Leonard R. Wilson (elected 1975)
Professor Knut Faegri (elected 1977)
Professor Charles Downie (elected 1982)
Professor William R. Evitt (elected 1989)
Professor Lucy M. Cranwell (elected 1989)
Dr. Tamara F. Vozzhennikova (elected 1990)
Professor Aureal T. Cross (elected 1991)
Dr. Robert T. Clarke (awarded 2002)
Professor Vaughn Bryant (awarded 2005)
Professor Alfred Traverse (awarded 2005)
Professor Bernard Owens (awarded 2011)
Dr. John E. Williams (awarded 2013)
Mr. Paul W. Nygreen (awarded 2013)
Professor Norman Norton (awarded 2016)
Professor George F. Hart (awarded 2020)

AASP Board of Directors Award recipient
Dr. Robert T. Clarke (awarded 1994)
Dr. Thomas D. Demchuk (awarded 2014)

Teaching medal recipients
Professor Aureal T. Cross (awarded 1999)
Professor Alfred Traverse (awarded 2001)
Professor Bill Evitt (awarded 2006)
Professor Vaughn M. Bryant (awarded 2013)
Professor Geoffrey Clayton (awarded 2016)

AASP Distinguished Service Award recipients
Dr. Robert T. Clarke (awarded 1978)
Dr. Norman J. Norton (awarded 1978)
Dr. Jack D. Burgess (awarded 1982)
Dr. Richard W. Hedlund (awarded 1982)
Dr. John A. Clendening (awarded 1987)
Dr. Kenneth M. Piel (awarded 1990)
Dr. Gordon D. Wood (awarded 1993)
Dr. Jan Jansonius (awarded 1995)
Dr. D. Colin McGregor (awarded 1995)
Professor John H. Wrenn (awarded 1998)
Professor Vaughn M. Bryant (awarded 1999)
Dr. Donald W. Engelhardt (awarded 2000)
Dr. David T. Pocknall (awarded 2005)
Dr. David K. Goodman (awarded 2005)
Professor Owen K. Davis (awarded 2005)
Dr. Thomas Demchuk (awarded 2009)
Professor Reed Wicander (awarded 2014)
Professor Fredrick Rich (awarded 2016)
Dr. James B. Riding (awarded 2016)
Professor Martin B. Farley (awarded 2019)

AASP – TPS
NEWSLETTER

Published Quarterly by AASP – The Palynological Society

December 2020
ISSN 0732-6041

Volume 53, Number 4
Gilda Lopes, Editor

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 FEBRUARY 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 members.

A Message From Our President

Photo: Katrin Ruckwied, AASP–TPS President

Dear Colleagues and friends,

People who know me will not be surprised that I'm always late with the submission of the presidential letter. However, when Gilda sent her friendly reminder, this time it triggered several thoughts: "Oh dear, is it already time for another newsletter?" "Wow, where did this year go?" "Thank goodness this year is almost over." And of course: "What do I write?"

Usually, one would write a nice reflection of the last year, most likely focused on the annual meeting. Well, this year has thrown us a few curveballs, it came with a lot of uncertainties, challenges, and the need to make unpopular decisions. Unfortunately, the first memorable event of this year was the cancellation of the Annual Meeting in Baton Rouge! I hope that we will have the opportunity to meet at Cenex soon, and I would like to thank Sophie Warny and her team again for the organization of this conference. During our virtual board meeting, we welcomed new board members and tried to find ways to promote our society in these strange times. One of the results was the participation in the "Palynology Short Talk" series. I do personally think this was (and still is) a great success. It was a great opportunity to hand out our student awards, and we met new colleagues from all over the world. A special thanks to Jen O'Keefe, who is co-organizing this series and represents the "deep time palynologists". We also decided to postpone the annual meeting in Colombia to 2022. Even with vaccines underway, I still believe that this was the right decision, and I'm very optimistic that we will have a fantastic meeting in 2022. Overall, 2020 was a decent year for AASP! Financially our conservative approach over the last years has been a blessing, our journal 'Palynology' is going strong, and I'm excited to see what the new AASP Foundation Trustees will come up with.

I wish all of you and your families a happy holiday season. Let us hope that 2021 will bring us a bit closer to normality!

Best regards and stay healthy!

Katrin

Managing Editor's Report

Since the last *Newsletter*, the final issue of this year's volume of *Palynology* was published online. Part 4 of Volume 44 comprises 11 articles, all of which are listed below. Volume 44, parts 3 and 4 are, as I write this in early November, with the printers and all subscribers to the hard copy will be receiving this issue very soon. This volume runs to 756 pages, which makes it one of our best ever years.

The current page budget going forward is 773 pages, and this means that our 'backlog' is not so large. As things stand, the first issue of next year is already full but not so much after that. We are currently working on ways to avoid what I just (somewhat unfortunately) termed a 'backlog'. I will report on developments just as soon as I can.

I would like to take this opportunity to offer thanks to all our reviewers. The peer reviewers do a fantastic job assessing manuscripts submitted to the journal. They receive no payment for this work. If they choose not to remain anonymous, most authors give them fulsome acknowledgement, but I really wish that I could change the system so that they are better rewarded and/or acknowledged.

A 'spoiler' for next year's cover is that it features a stunning modern pollen grain set against a very tasteful yellow background.

This year has been traumatic for all of us; it seems incredible that we are now only a few short weeks away from 2021. Let's hope that next year brings better news everywhere.

Thank you for your support of the journal whether you are an author, reader or reviewer.

Best wishes

Jim Riding

Managing Editor, AASP – The Palynological Society

British Geological Survey

Keyworth

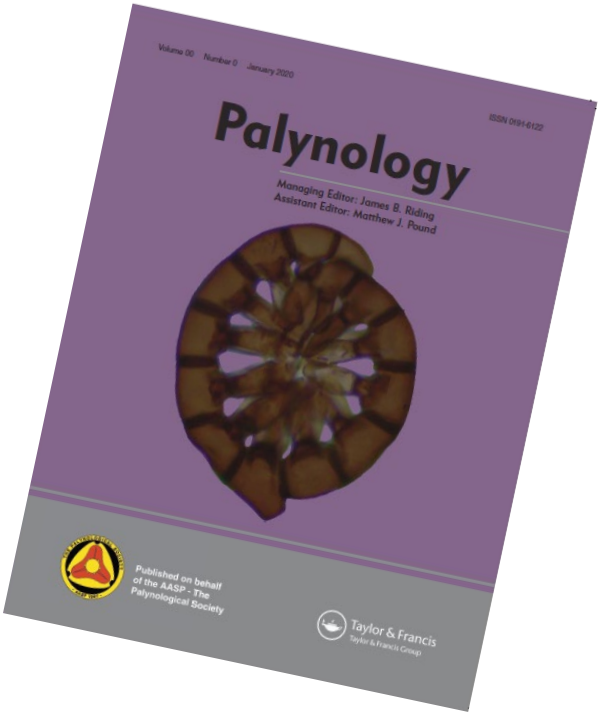
Nottingham NG12 5GG

United Kingdom

Tel: +44 (0)115 9363447

E-mail: jbri@bgs.ac.uk

5th November 2020



The contents of *Palynology* Volume 44, Part 4

(November 2020)

1.Muniraja, M., Vijayalakshmi, G., Lakshmipathi Naik, M., Terry, Rg. and Sha Valli Khan, P.S. Ultrastructural observations of anthers, staminodes, and pollen grains of mango (*Mangifera indica* L. var. Beneshan; Anacardiaceae). 565–574.

2. Navidi-Izad, N., Hashemi, H., Cascales-Miñana, B., Régnier, S., Wellman, C.H. and Servais, T. Colonial palynomorphs from the Upper Ordovician of north-eastern Iran: 'thalli', coenobial Chlorophyceae (Hydrodictyaceae) or cyanobacteria? 575–585.

3. Bianchinotti, M.V., Martínez, M.A. and Cornou, M.E. The utility of *Desmidiospora*: a paradigm shift based on Paleogene fungal remains from the Ñirihuau Basin, Argentina. 587–596.

4. Cui, X., Zhao, Y., Zhao, C. and Liu, J. Pollen morphology of tribes Alsineae and Sperguleae (Caryophyllaceae) and its systematic significance. 597–620.

5. Playford, G. Palynology of the Mount Johnstone Formation (Mississippian), southern New England Orogen, New South Wales, Australia. 621–658.

6. Yang, S., Mao, L., Zheng, Z., Chen, B. and Li, J. Pollen atlas for selected subfamilies of Euphorbiaceae from Southern China: a complementary contribution to Quaternary pollen analysis. 659–673.

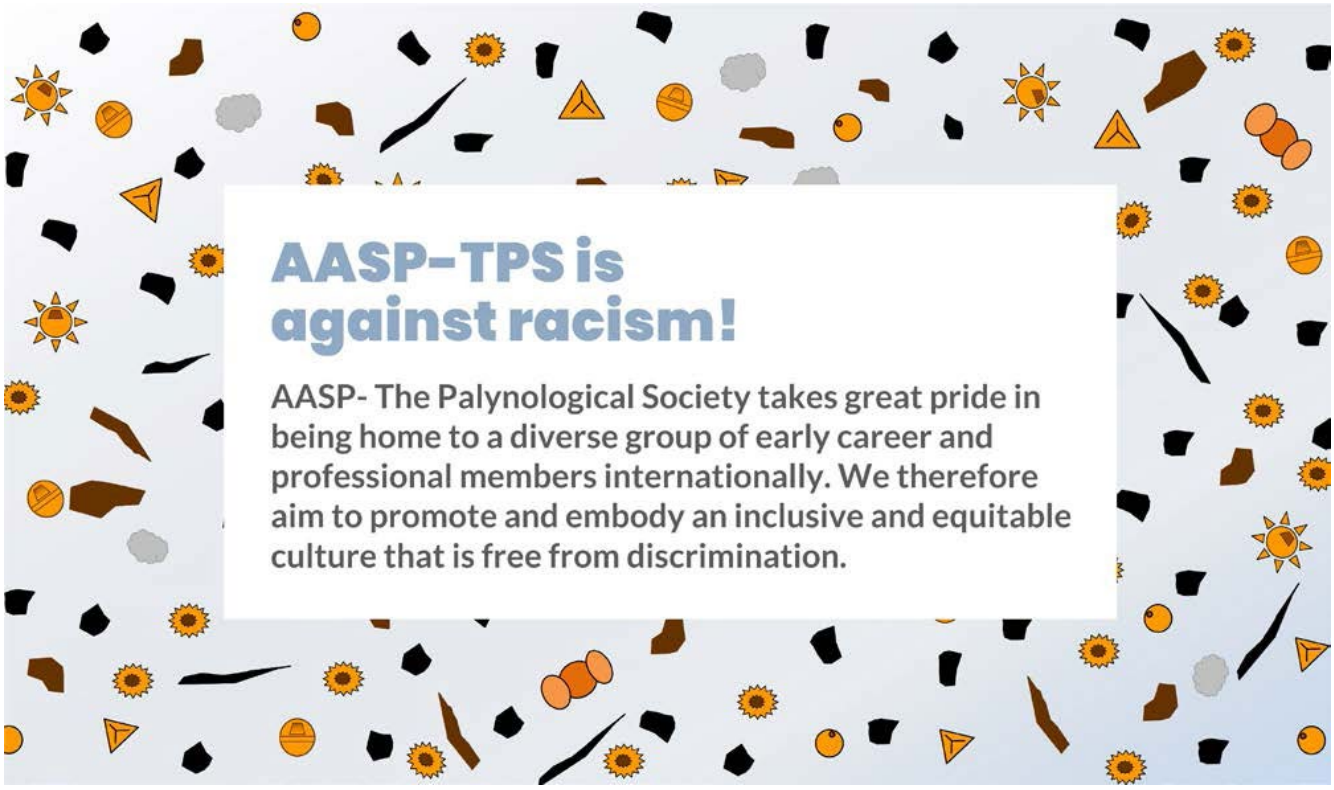
7. Parra, F.J., Navarrete, R.E., di Pasquo, M.M., Roddaz, M., Calderón, Y. and Baby, P. Neogene palynostratigraphic zonation of the Marañon basin (Western Amazonia, Peru). 675–695.

8. Çelemli, Ö.G. Palynological characteristıcs of *Jasione* species native to Turkey. 697–708.

9. Wiezik, M., Jamrichová, E., Hájková, P., Hrivnák, R., Máliš, F., Petr, L., Jankovská, V., Čierniková, M. and Hájek, M. The Last Glacial and Holocene history of mountain woodlands in the southern part of the Western Carpathians, with emphasis on the spread of *Fagus sylvatica*. 709–722.

10. Beck, C.W., Bryant, V.M. and Jenkins, D.L. Comparison of *Neotoma* (packrat) feces to associated sediments from Paisley Caves, Oregon, U.S.A. 723–741.

11. Riding, J.B. The literature on Triassic, Jurassic and earliest Cretaceous dinoflagellate cysts: supplement 4. 743–756.


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

AASP – 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. Necklaces can be mailed at your request.

AASP – TPS Awards Application Deadlines

Marie Thomas
Awards Committee Chair

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

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

The deadline for submission of society awards nominations is **March 1** of each year.

Board of Directors Award

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

Medal for Scientific Excellence

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

Medal for Scientific Merit and Outstanding Promise

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

Distinguished Service Award

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

Medal for Excellence in Education

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

Honorary Life Membership

This is the oldest AASP–TPS award, with the first awards dating to 1975. This award is either bestowed upon individuals who have made

a fundamental contribution to the discipline of palynology, or to people who have given devoted service to the AASP–TPS (or both). These may be persons who are not members of the society. Honorary Life Membership has been awarded to seventeen individuals, most recently to George Hart in 2020.

AASP – TPS Student Research Awards, 2021

CALL FOR APPLICATIONS

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

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

Application procedure:

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

Part A of this form is to be completed by the student, and **Part B** by the student's faculty supervisor. Applications must be accompanied by a photograph of the student (.jpeg format) for publication in the society's newsletter. Additional material will not be considered.

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

Dr. Marie L. Thomas
AASP–TPS Awards Committee Chair
aaspawards@gmail.com

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

The deadline for applications is **March 31st, 2021**. Late or incomplete applications, as well as those that exceed the stated word limits in sections A or B will be disqualified. As per society awards policy only students who are registered AASP–TPS members are eligible to apply (https://palynology.org/join/#join). Applications from non-members will not be accepted.

Undergraduate Student Awards

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

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

The following institutions have approved

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

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

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

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

Undergraduate Student Award, Course Registration Form

Nominating faculty member:
University/Higher Education Institution:
Course Name:
Course Description and level:
Average number of students registered in the course annually:
Number of hours of palynological instruction:
Criteria used to determine the winning student:
Date:

L.R. Wilson Best Student Paper Award Winner

By Julia Gravendyck

I am Julia Gravendyck and honored and so grateful to have received the L.R. Wilson Best Student Paper Award for my presentation "*Challenges of modern paleopalynotaxonomy: treasure hunt of a PhD"* at the Palynology Short Talks this year.

After my first encounter with palynology in my Master's thesis for an environmental reconstruction for the pilot carbon capture project in Ketzin (Germany), I have pursued my passion for palynology during my PhD in Berlin at the Freie Universität and the Botanical Garden over the last 3.5 years thanks to my supervisors Wolfram Kürschner in Oslo (Palynology) and Julien Bachelier in Berlin (Botany). As the Student Director at-Large of the AASP from 2018-2020 I have met a lot of you in conferences before I handed over my post to Damián Cárdenas this year. Now I am active on the Board of the Collegium Palynologicum Scandinavicum.

At the moment, I am working on the Triassic-Jurassic transition in the new Bonenburg section. I am particularly interested in plant ecosystem response at times of environmental disturbance, either through community change and/or through teratological occurrences. Apart from the of question how plants react to change, I am very interested in palynotaxonomy and nomenclature as the base of subsequent questions.

Working with a lot of type material gave me great new insights into the evolution of our discipline, but still confronts me with ever new challenges, some of which I could present in this great new and digital format. Using the new presentation possibilities made available by online meetings was a lot of fun to prepare the talk. If you like to rewatch it, have a look on youtube (https://youtu.be/P2UVwFnwmNQ) and maybe we see each other one of the next dates of the Palynology Short Talks.

Photo: Julia Gravendyck, PhD student
Freie Universität Berlin

News from...

USA

By Ingrid Romero

Despite the craziness of 2020, the palynological world has been very active this year. There were several online conferences that allowed us to come out as community despite the isolation. There were also several interesting publications. Among the wide variety of papers published this year, here we highlight a few studies that cover a variety of applications in palynology.

1. Warny S; Ferguson, S; Hafner MS; Escarguel G. Using museum pelt collections to generate pollen prints from high-risk regions: A new palynological forensic strategy for geolocation. Forensic Science International 306: 110061.

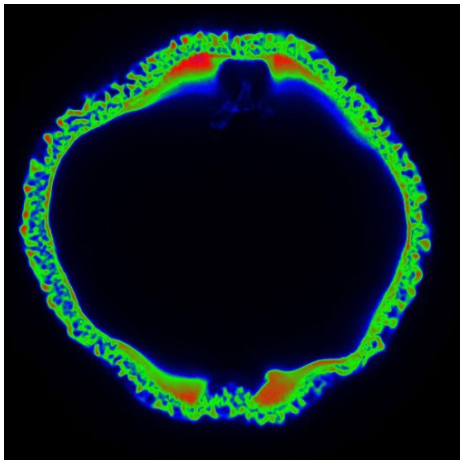
2. Dechesne, M; Currano, ED; Dunn, RE; Higgins, P; Hartman, JH; Chamberlain, KR; Holm-Denoma, CS. A new stratigraphic framework and constrains for the position of the Paleocene-Eocene boundary in the rapidly subsiding Hanna Basin, Wyoming. Geosphere 16(2): 594-618.

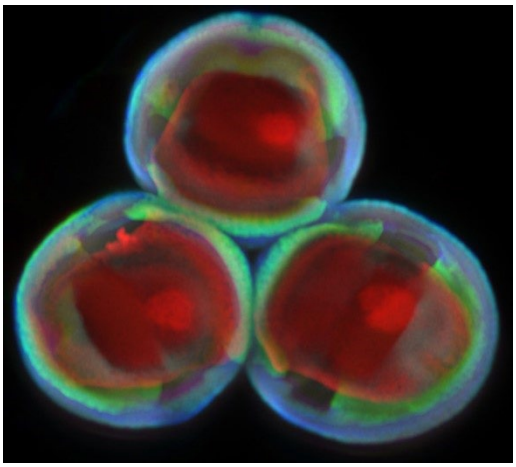
3. Smith, V; Warny, S; Vellekoop, J; Vajda, V; Escarguel, G; Jarzen, DM. Palynology from ground zero of the Chicxulub impact, southern Gulf of Mexico. Palynology, 1-17.

4. Romero, IC; Kong, S; Fowlkess, CC; Jaramillo, C; Urban, MA; Oboh-Ikuenobe, F; D'Apolito, C; Punyasena, SW. Improving the taxonomy of fossil pollen using convolutional neural networks and superresolution microscopy. PNAS 117(45): 28496-28505.

5. Schiller, CM; Whitlock, C; Alt, M; Morgan, LA. Vegetation responses to Quaternary volcanic and hydrothermal disturbances in the Northern Rocky Mountains and Greater Yellowstone Ecosystem (USA). Palaeogeography, Palaeoclimatology, Palaeoecology 559, 109859.

Finally, enjoy the holidays with these colorful pollen grains.





Photos: Images retrieved using Airyscan. Left - Wall structure of *Firmiana simplex*; Right - *Rhizophora* sp. pollen grains. Photos courtesy of Ingrid Romero.

South America

By Andres Pardo-Trujillo and Angelo Prata

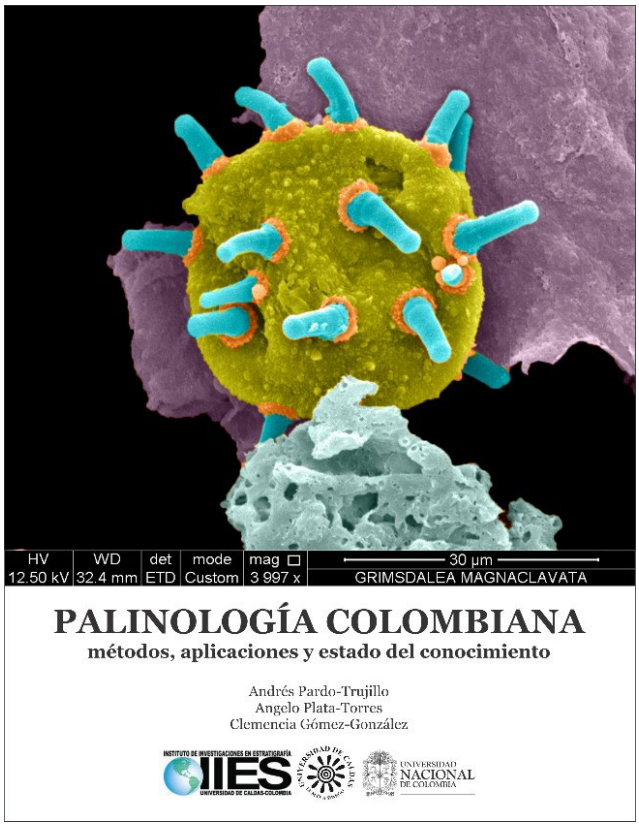
Colombian palynology: methods, applications and current knowledge

Andres Pardo-Trujillo[1], Angelo Plata-Torres[1,2], and Clemencia Gómez-González[3]

[1]Universidad de Caldas - Instituto de investigaciones en estratigrafía (IIES), Manizales, Colombia; [2]Universidad de Salamanca (Usal), Salamanca, España; [3]Universidad Nacional de Colombia, Bogotá, Colombia.

This new book about Colombian palynology will be coming at the beginning of next year. It has been written by three Colombian palynologists, and it is a compilation of updated information about the basic principles of palynology and the palynological studies that have been made and published in Colombia.

The book is divided in five chapters. The first chapter explains what palynology is and its applications, as well as highlights the different



types of palynomorphs that are known. The second chapter explains concepts related to the production, dispersion and preservation of palynomorphs. The third chapter describes the different types of palynological collections, as well as laboratory techniques to prepare palynological samples. The chapter also includes a general description of dating techniques for sediments. The fourth chapter covers the basic concepts of the study of the morphology of pollen and spores. This chapter highlights some studies as examples of biostratigraphy that have been used in the Institute of research in stratigraphy (IIES) in the Universidad de Caldas in Colombia. The fifth and last chapter is a monography that chronologically compiles and describes all Colombian palynological published studies. This chapter starts with the Paleozoic and continues with the Mesozoic and Cenozoic and ends Quaternary. The Quaternary is the most studied period in Colombia due to its exceptional sedimentary record, which includes the last 2.6 million years.

A significant portion of the material is based on notes used in palynological courses in the programs of Geology and Biology from Universidad de Caldas, as well as the program of Quaternary Geology from Universidad Nacional de Colombia. We hope that with this book, geologist and biologist will develop an interest for this incredible study area, as well as contribute to the advances of palynology.

Spanish version:

Presentación de Libro: Palinología colombiana: métodos, aplicaciones y estado del conocimiento

Autores: Andres Pardo-Trujillo[1], Angelo Plata-Torres[1,2], y Clemencia Gómez-González[3]

[1]Universidad de Caldas - Instituto de investigaciones en estratigrafía (IIES), Manizales, Colombia; [2]Universidad de Salamanca (Usal), Salamanca, España; [3]Universidad Nacional de Colombia, Bogotá, Colombia

El interés principal de este libro es poner a disposición de estudiantes y profesionales de las ciencias naturales información actualizada acerca de los principios básicos de la palinología y las investigaciones palinológicas que se han realizado en Colombia.

El documento está dividido en cinco capítulos: en el primero se define la palinología, se identifican los tipos de palinomorfos y se describen sus aplicaciones; en el segundo se plantean los conceptos referentes a producción, dispersión y preservación de palinomorfos; en el tercero se describen las formas de colección y tratamiento de muestras para los análisis palinológicos y se mencionan de manera general métodos de datación de sedimentos; en el cuarto se abordan las bases para el estudio morfológico del polen y las esporas; es de resaltar

que para ilustrar algunos de los aspectos mencionados hemos utilizado ejemplos de estudios que el Instituto de Investigaciones en Estratigrafía (IIES) de la Universidad de Caldas viene realizando en Colombia. Por último, el capítulo quinto consiste en una monografía que recoge las investigaciones palinológicas realizadas en Colombia y son presentados cronológicamente desde el Paleozoico, Mesozoico y Cenozoico y finalizando con los depósitos Cuaternarios, uno de los períodos más estudiados en la Sabana de Bogotá, debido al excepcional registro sedimentario de los últimos 3.5 millones de años.

Gran parte de este material se basa en notas elaboradas para los cursos de palinología de los programas de Geología y Biología de la Universidad de Caldas y de Geología del Cuaternario de la Universidad Nacional de Colombia - Sede Bogotá. Esperamos que con este trabajo se despierte el interés de geólogos y biólogos en esta apasionante disciplina y así contribuir con el desarrollo de la misma.

Germany

By Julia Gravendyck

The Heunisch-Götz (H-G) transition: described from Hannover (Germany)

After almost 30 years of service, Carmen Heunisch retires this December (2020) from her position as Mesozoic Palynologist at the State Office for Mining, Energy and Geology (LBEG – Landesamt für Bergbau, Energie und Geologie) in Hannover (Germany).

Carmen studied geology in Würzburg (1975-1981) and continued her doctorate there from 1981-1984, under the supervision of Professor K. Sdzuy, and co-advisers W. Riedel in Göttingen, and H. Visscher and W.A. Brugman from the Utrecht group. Her resulting thesis entitled, “The Palynology of the Lower Keuper in Franconia, Southern Germany (Palynologie des Unteren Keupers in Franconia, Süddeutschland)” was later published in Palaeontographica B, and surely sits on many of our shelves.

Subsequently, she conducted a scientific traineeship (German: Volontariat) at the Hessisches Landesmuseum Darmstadt and occupied a DFG-project position in Münster before moving to the LBEG in 1991. Aside form her departmental duties, she compiled more than 80 publications with an extensive network of national and international colleagues. In particular, her contributions to the palynostratigraphy of the Germanic Triassic will have a lasting impact on our discipline. Carmen is always a very knowledgeable, warm and kind person to turn to and will be greatly missed as an active member of our discipline and by her colleagues at the LBEG, in Germany and abroad.

Unlike the rapid decline that the species ‘palynologist’ faces today, Carmen Heunisch’s position is continued by Annette Götz. I believe she will not only continue Carmen’s legacy, but will surely give this position her own touch, furthering palynology in Germany and at large.

I wish both Carmen - who leaves big shoes to fill - and Annette – with big feet to fill them - the very best of luck and success, mastering the challenges and enjoying the new experiences that the future has in store for them.

Photo: The marker species for the H-G transition, now recognized in Hannover (Germany). Left: Carmen Heunisch; Right: Annette Götz. Documented on 4. November 2020. Photo courtesy of Edith Stanke – LBEG.

Black Sea Region

By Peta Mudie

NEWS FROM THE PARATETHYS AND ITS MODERN RELICT PONTO-CASPIAN SEAS

On November 17, Keith Richards (KrA Stratigraphic/University of Liverpool) gave a short talk on the Paratethyan Seas that well summarises the history of palynological work. Keith's talk on the "Paratethys: from the Alps to the Aral Sea – evolution of environments during the Cenozoic" is part of the online Palynology Short Talk Series and can be accessed at https://nastrandberg.wixsite.com/palynology/post/program-for-pst-session-5-environmental-change-landscape-reconstructions-ecological-management.

The Paratethyan palynofloras are hugely varied, including pollen, spores and non-pollen palynomorphs. The non-pollen palynomorphs (NPP) are especially noted for diverse assemblages of morphologically distinctive and variable dinoflagellate cysts with cruciform to fusiform bodies and parachute-like periphragms. The best known of these are the "Paratethyan endemics" such as *Spiniferites cruciformis* and *Galeacysta etrusca* that first appeared in the Pannonian basin during the Late Miocene and spread eastwards around 6 Million years ago. Other members of this morphologically exotic group are the monotypic genera *Romanodinium*, *Seriliodinium,* and *Pterocysta*, as well as *Thalassiphora (Spiniferites) balcanica* and other undescribed *Thalassiphora* species.

Our current understanding of Paratethyan palynofloras is built upon many lifetimes of work by Eszter Nagy (Budapest), Mária Sütő-Szentai (Komló, Southern Hungary), Irina Shatilova (Tbilisi) and Nataliya Bolikovskaya (Moscow), among many others. For many years, the work of these important pioneers in palynology were not available in English. Fortunately, this is changing with ongoing work by Koraljka Bakrač and Viktoria Baranyi (Geological Survey of Croatia, Zagreb) who are collaborating with Maria Sütő-Szentai for a revision of the Pannonian Basin species of *Virgodinium* (formerly *Gonyaulax digitalis* Pouchet 1883/Kofoid 1911 subsp. *secundus* Sütő-Szentai 1991) and three *Pontiadinium* species.

Recent publications on the morphologically distinctive and highly variable Paratethyan dinoflagellate cysts include:

1. Mudie, Rochon, Richards, et al. (2019) Palynology 42: sup. 1, 1-9, DOI :c10.1080/01916122.2018.1465741

2. Mudie, Fensome, Rochon, Bakrač (2019) Palynology 44(2)

3. Hoyle et al. (2020), Palaeo-3 v.561(1)

Image: Location map showing outline of the Paratethys during the Late Miocene and positions of basins within the Central and Eastern Paratethys. (Image Courtesy of Keith Richards)

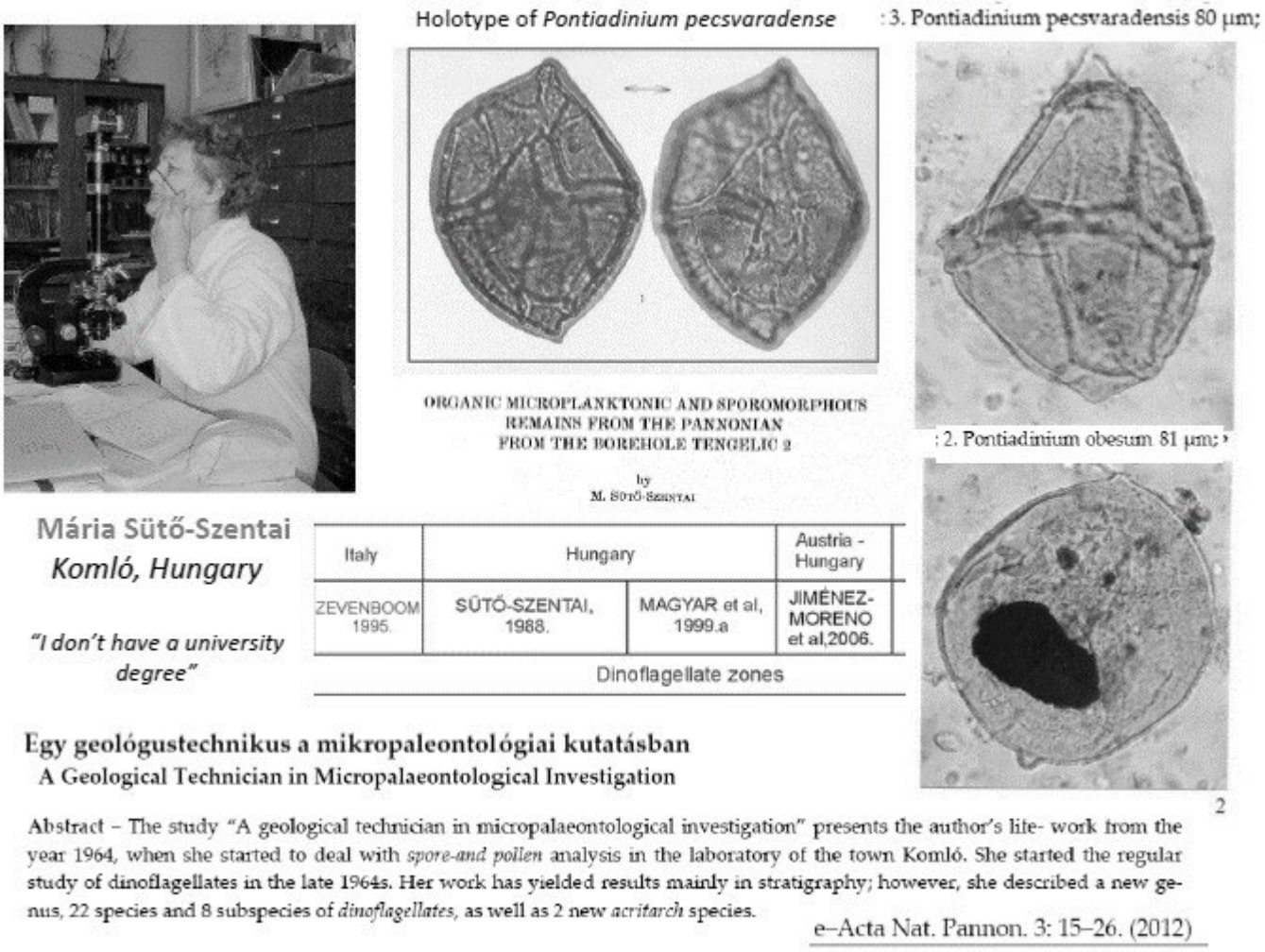


Image: Palynology Short Talks, November 2020 Presentation (Courtesy of Keith Richards). Top left and right: Originals are from *A Geological Technician in Micropaleontological Investigation*, in e-Acta Nat. Panon. 3: 2010; Holotypes are from Süto-Szentai, M. 1982a: A Tengelic 2 borehole (in Hungarian with English abstract).

Other ongoing work includes a collaboration between Nataliya Bolikovskaya (Moscow) and Peta Mudie who are reviewing the palynology of terrestrial and marine assemblages during the Karangatian interval (Marine Isotope Stage 5 equivalent) in the Ponto-Caspian seas. Another new publication documents the distribution of pollen, dinoflagellate cysts, microforaminiferal linings, copepod eggs and other NPP in recent sediments of the outer Ukrainian Shelf (Mudie, Yanko-Hombach, Mudryk, Quaternary International, online 20 May, 2020). These data are related to dissolved oxygen, methane and other hydrocarbons from cold seeps and basement faults to show that the distribution and abundance of the quasi-endemic Black Sea species *Peridinium ponticum* is strongly tied to high methane levels. However, ongoing statistical studies with Sergii Kadurin at Odessa National University show that the species has a strong negative correlation with liquid hydrocarbon and oil.

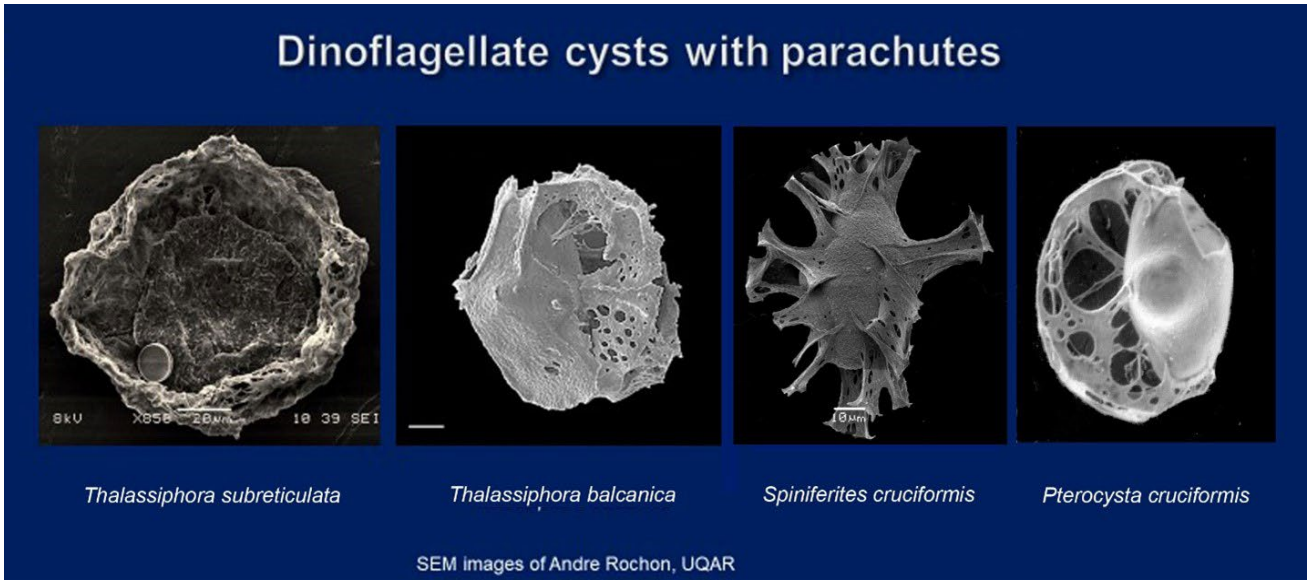


Image: Dinoflagellates cysts SEM Images (From left to right: *Thalassiphora subreticulata, Thalassiphora balcanica, Spiniferites cruciformis*, and *Pterocysta cruciformis*). (Images Courtesy of Andre Rochon)

Getting to know our colleagues with Ingrid Romero

By Michael Zavada and Ingrid Romero

This new section is created to learn about the members of our society and their interests beyond palynology.

In today's news, we will look at the extensive career and work of Dr. Michael Zavada. He is currently looking for grad students interested in obtaining a M.S. in geology, as well as working in interdisciplinary projects related to research areas such as palynology, geochemistry, stratigraphy organic petrology, and/or environment science.

Dr. Michael Zavada was born and raised in

Photo: Dr. Michael Zavada

Bridgeport, Connecticut. He received his B.S. and M.S. degree in Botany/Palynology from Arizona State University, Tempe. He also received a B.A. in Slavic Languages and Literature, and a Ph.D. in Ecology and Evolutionary Biology from the University of Connecticut, Storrs. He spent one year as a Fulbright Scholar in Skopje, Macedonia at the Geologic Institute, and the Center for Foreign Languages. He did post-doctoral work with David Dilcher at Indiana University, Bloomington, and Thomas Taylor at Ohio State University, Columbus (both NAS members). He has served on the faculties of The University of the Witwatersrand, Johannesburg, South Africa, as well as The University of Louisiana-Lafayette. He was Professor and Chairman of the Department of Biology at Providence College, Providence, RI, and East Tennessee State University, Johnson City, TN. He served as Dean of the College of Arts and Sciences at Seton Hall University, New Jersey and as Dean of The College of Arts and Sciences at University of Texas - Permian Basin, and subsequently served as Chair of Geosciences at University of Texas – Permian Basin.

Dr. Zavada has broad and varied interests which include elucidating the time and place of origin of the angiosperms, paleo-environmental reconstruction, eco-physiology, reproductive biology, plant–animal interactions, biomechanics, archeological pollen analysis, ethnobotany, and aerobiology. His field research has taken him throughout North America, South America, Africa, including Madagascar, and Mongolia. He has received over $9.5 million in grants and solicited funds, including grants from the National Science Foundation, National Institute of Health, NASA, American Philosophical Society, The University of Texas System, and National Geographic Society.

In addition to his academic interests, he played baseball at Arizona State University, participates in a variety of sports and outdoor activities, enjoys travel, and is an instrument rated private pilot.

Fall 2020 GSA Update

By Francisca Oboh-Ikuenobe, GSA Liaison

The Joint American Geosciences Institute/ Geological Society of America (AGI/GSA) Associated Societies Fall meeting was held virtually on October 21, 2020. Much of the discussion focused on the impact of COVID-19 on professional meetings, as well as the document submitted by the AGI Diversity Committee. The document, *Framework for Addressing Racial and Ethnic Equity in Geosciences Professional Societies*, a statement on Diversity & Inclusiveness (D&I) for geoscience societies, was made available for comments until November 21, 2020, and will be released in a couple of months.

GSA has already pivoted the March 2021 Northeast sectional meeting to a virtual format, and will make a decision shortly about the format for the Southeastern, Joint North-Central/South-Central, Rocky Mountain, and Cordilleran sectional meetings. There will likely be a hybrid component for the in-

Image: AASP – TPS GSA 2020 Annual Meeting Booth.

person 2021 annual meeting being planned to be held in Portland, Oregon. Meanwhile, the 2020 virtual annual meeting on October 26-30 was an interesting experiment on an e-Platform that attempted to capture many aspects on an in-person meeting. The virtual booth built by AASP – TPS displayed in the Exhibit Hall throughout the meeting received nearly 50 "visitors." Julia Gravendyck provided the video for the booth, and Gilda Lopes and Katrin Ruckwied assembled all the materials displayed in the booth, which included a portal with the latest issue of the newsletter.

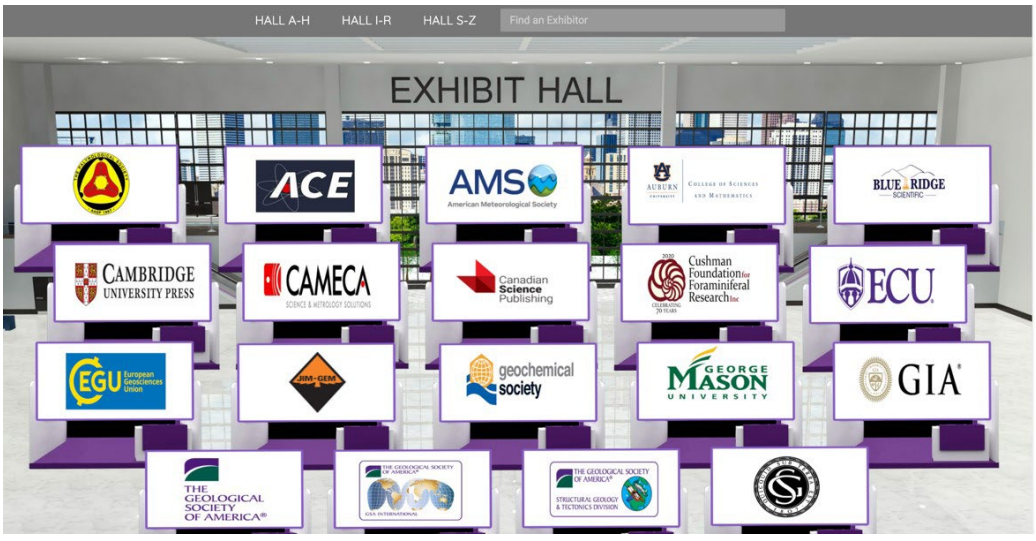


Image: GSA 2020 Annual Meeting virtual Exhibit Hall.

In Memoriam...

Eric Grimm

1951–2020

By Dr. Fabienne Marret-Davies, University of Liverpool.

Dr. Eric Grimm suddenly passed away on the 15th November 2020. This was the first news that was in my inbox the following day, a shocking and deeply sad news, the kind you really do not want to read at the moment. The reaction of the community was immediate, with hundreds of emails/tweets/blogs buzzing all around the world, acknowledging this loss with kind words and unanimous thoughts and feelings about that immense loss of such a kind and friendly colleague.

Eric has giving us an immeasurable legacy in the fields of palynology and palaeoecology, not only with the notorious software Tilia and of course CONISS, but also his dedication and support in the development of global and regional databases. We had the chance to host one of his workshops at the University of Liverpool, in 2011, showing the first version of the new all-Window version of Tilia and the global Neotoma database, organised by my colleague Richard Bradshaw. To say that such workshops were so useful would be a pleonasm. But moreover, any time there was an issue with this software, Eric was always there, answering straightway, with a solution.

Eric's career started in the late 1980s at the Illinois State Museum (ISM), as a curator of Botany, after having obtained a PhD in Ecology from the University of Minnesota in 1981. During his tenure, he developed not only the North American Pollen database, but produced numerous palynological records, gave inspiring lectures and conferences, and deeply contributed to a better understanding

Photo: Dr. Eric Grimm at INQUA, Dublin in 2019. (Photo Courtesy of Dr. Limi Mao)

of long-term changes in ecosystems, all these activities having been acknowledged in multiple awards from specialised societies. In 2013, he became the Director of Sciences (ISM) and after retirement, he became an Adjunct Research Professor in the Department of Earth Sciences at the University of Minnesota, carrying on improving Tilia and Neotoma, participating in conferences and workshops.

Below are some statements reflecting the impact that Eric had on all of us, and many more can be read here: https://www.legacy.com/obituaries/keloland/obituary.aspx?n=eric-grimm&pid=197110651&fhid=28599

From Dr Anne-Marie Lézine (France):

"The sudden death of Eric Grimm has plunged the entire community of paleoecologists and his friends into deepest sadness. Eric was a Quaternary palynologist. This is a relatively

recent science that only really developed in the second half of the 20th century. Eric was therefore part of one of the very first generations of students who were offered a territory, if not virgin, at least so little known that much remained to be discovered.

Eric provided very high quality palynological sequences throughout the United States, from Florida to the Great Lakes region, including the famous and exceptionally long series of Lake Tulane, which covers more than 50,000 years.

Beyond this expertise, Eric had a very clear awareness of the collective interest. This interest can be illustrated by two examples: first, his programming skills allowed him to propose tools such as the data entry and analysis softwares TILIA and CONNISS to which he associated a very precious tool allowing to easily draw pollen diagrams (TiliaGraph). With great generosity, Eric made these tools available to the scientific community. They are among the most used today by palynologists around the world. Next, Eric took a large part in the development of pollen databases by investing in the development of the Global Pollen Database which later evolved into a much larger paleoecological database, Neotoma. It was on this occasion that I met him in the 1990s as the representative of the African Pollen Database (APD). What was striking, beyond his knowledge in paleoecology, was his great kindness and the quality of his listening skills, qualities that allowed him to bring around the same table strong scientific personalities from various scientific cultures around the world. Eric was always smiling and enthusiastic. Through his kindness, generosity and willingness, he greatly contributed to give palynology the central place it deserves not only in paleoecology but more broadly in the study of Global Change. Our community has lost a warm and friendly colleague, it has also lost a faithful friend."

From Dr Bisi Sowunmi (Nigeria)

"Eric has immortalised himself through his outstanding contributions in the diverse fields you highlighted, not to talk of his being synonymous with TILIA. He was pleasant, diligent friendly and amazingly ready to help always. He will be greatly missed."

From Dr Louis Scott (South Africa)

"Eric was always kind and willing to help, and he did so much for us. We will miss him."

Dr Limi Mao has kindly shared with me (and now with you) this photo of Eric, last taken at INQUA in Dublin in 2019, a thoughtful scientist in deep thinking.

Norman Frederiksen
1932–2020

By David Pocknall, based on the obituary published by the Washington Post on November 15th.

The palynological community has lost another icon with the passing of Dr. Norman Oliver Frederiksen on October 6, 2020. Norman ("Norm") was the son of Oliver and Jane Frederiksen and was born on August 11, 1932, in Vienna, Austria. His father was of Danish descent and Norm was proud of his distinguished Danish heritage. He grew up mainly in Oxford, Ohio, but moved with his parents to Germany for his senior year of high school. He became fluent in German and was

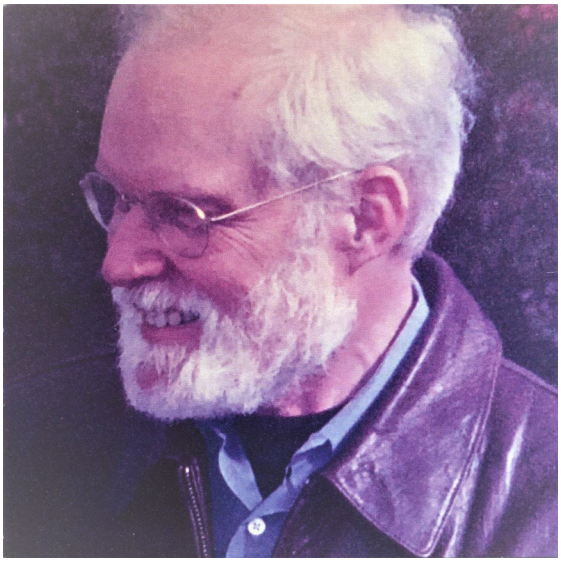


Photo: Norm Frederiksen

stationed with the U.S. Army in Berlin as a translator of East German intercepts during the Cold War. He received his undergraduate degree in Geology from Hamilton College and a master's degree from Pennsylvania State University. His first position was at Mobil Oil in Dallas, Texas. Norm earned his PhD from the University of Wisconsin/Madison and spent the last 28 years of his career as an accomplished and well-known research geologist/palynologist at the U.S. Geological Survey, in Reston, Virginia. His focus in North America was on California, Alaska, the East Coast, and the Gulf Coast. He also worked in the international arena in Europe, Australia, India, and Pakistan. Norm had a special gift for music, played clarinet and guitar, and was a lifelong classical music enthusiast. Our thoughts and sympathies go out to his family.

A more extensive obituary will appear in a future newsletter.

Roger Morgan
1950–2020

By Daniel Mantle, Nigel Hooker, and Adam Charles

"He lived for family, fossils, and community"

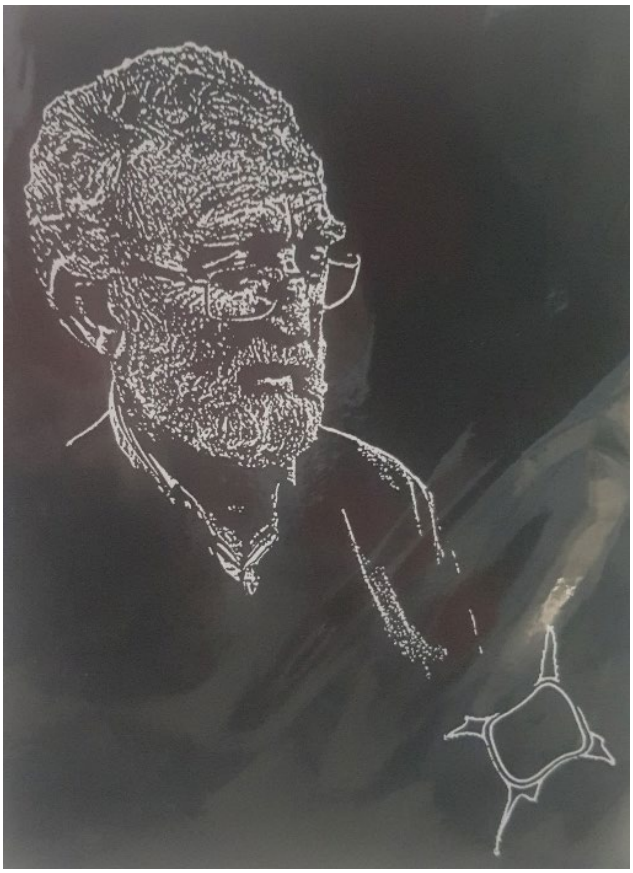


Image: Roger Morgan etch. The dinocyst, *Muderongia australis,* represents Roger Morgan company logo (By Simon Waters)

A titan of Australian industrial palynology, Roger Paul Morgan was a pioneer in the use of microfossils in the Australian oil and gas industry, as well as a mentor to a generation of palynologists.

Born to Gordon and Lorna Morgan in February 1950 and raised in the eastern Adelaide suburbs of Maylands and Wattle Park (South Australia), he first encountered palynology as an undergraduate in 1968. On the recommendation of Martin Glaessner, he secured vacation employment with Esso in Sydney, working with Dick Evans and Lew Stover. An honours project on Jurassic dinocysts with Basil Balme at the University of Western Australia followed, before a move up the stratigraphic column to study Australian Cretaceous dinocysts for his doctoral thesis at the University of Adelaide, under the supervision of Brian McGowran and Robin Helby. Following completion of his PhD, Roger and Dianne, his staunch partner and loving wife, moved to the bright lights of Sydney where Roger accepted a stratigrapher's role with the Geological Survey of New South Wales, studying the state's Carboniferous to Cenozoic palynology.

In 1978 Roger secured a pioneering position with the newly established British National Oil Corporation (BNOC) in Glasgow, Scotland. As one of the founding members of the BNOC Stratigraphic Laboratory, Roger's role as Head of Palynology was to help build a strong team of biostratigraphers, sedimentologists, and organic geochemists, to meet the needs of rapidly expanding exploration and production departments. Roger regularly deputized for the Head Stratigrapher, ex-palynologist Mike Fisher, and eventually in 1983 was offered the permanent position. This however coincided with an opportunity to literally "return to the farm" in Maitland, South Australia—where he exchanged an oil company office job for the precarious life of a palynological consultant, supporting Dianne as she ran the farm and they

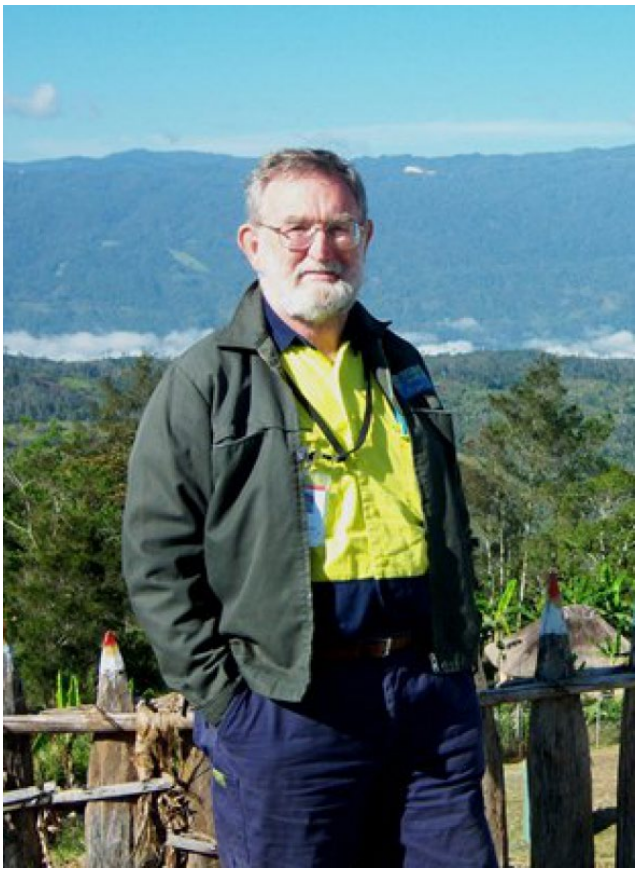


Photo: Roger Morgan at rigsite in PNG.

raised their kids, Rebecca and Adrian. Roger's natural optimism and energy, not to mention his unique talents as a very effective and efficient stratigraphic palynologist, resulted in a highly successful consultancy venture, supported by successive collaborations with Barry Ingram, Nigel Hooker, and Jeff Goodall. Spanning three and half decades, Roger's palynology positively impacted the success of oil and gas companies operating throughout Australasia, including extensive operational rigsite work in Papua New Guinea. Roger particularly thrived in the rigsite environment; he loved contributing vital stratigraphic data that greatly aided real-time drilling decisions, and also problem solving with the limited resources on hand in the remote Southern Highlands of PNG or on offshore drilling installations. No matter how the drilling was going, or how many hours, days, or weeks he had worked on site, he was always welcoming

and friendly to everyone in these sometimes-stressful working environments. He was always especially keen to help out and train the laboratory technicians, indeed the Indonesian and Papuan technicians knew him as simply "Papa Roger".

Roger was particularly keen in pushing the resolution in palynological zonation schemes, and applications in an exploration and rigsite environment. His contributions are mostly unpublished but include revised zonation schemes in the Australian Cretaceous, North West European Cenozoic, Late Cretaceous west of Shetland, Australian Mesozoic, and the Cretaceous of Papua New Guinea; you can add to this many hundreds, if not thousands, of industry reports and reviews. Although relatively few, his formal publications remain keystone works for Australian and southern hemisphere palynologists and will continue to underpin regional palynostratigraphy in the decades to come.

Roger also influenced the fortunes of many young palynologists who he generously trained and worked with in the office and at rigsite, building their confidence and palynological knowledge, and providing the opportunity of a unique rural consultancy lifestyle. There was rarely a dull moment in the "paly office" behind the farm house, whether it was the next exciting spore or dinocyst discovery or taxonomic discussion, or being called out to help move the sheep or round up some escaped cattle!!

Roger's consultancy was also underpinned by many dedicated and gifted laboratory technicians and office staff, who will no doubt carry memories of a demanding but fun place of work. His many years of hard work will not be lost, as his legacy and knowledge will be carried forward by all those he mentored and worked with.

Roger's enthusiasm and drive wasn't solely focussed on palynology; he was also a devoted family man and dedicated community supporter, serving on various town and church committees and always actively engaging with everything from the local school concerts, community plays, or the regional country fair. Following his retirement from full-time palynology, Roger threw himself into volunteering with the local ambulance brigade with renewed zest and became a critical and much respected part of this team.

Roger is survived by his loved wife and life partner, Dianne, son and best mate, Adrian, beloved daughter Rebecca and her husband Ellis. In the last few years of his life, Roger loved nothing more than spending time with his grandkids, Elke and Elliot, as their "Special Pa". The day before his passing, whilst exploring the local coastal reserves on the western Yorke Peninsula with Dianne and friends, Roger was still collecting rocks to process for *Wetzeliella* to show his adored grandkids and further teach them about the wonder and beauty of fossils. Roger lived for family, fossils, and community.

Call to Serve
Newsletter open positions

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

Current vacancies include:

· BOOK REVIEW EDITOR
· UNITED KINGDOM CORRESPONDENT

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

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

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

Gilda Lopes
Newsletter Editor

Consider Helping our Mission

AASP FOUNDATION CENTURY CLUB

What?

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Why?

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

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

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

How?

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

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.

2020 AASP Foundation Century Club Contribution Form

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

Name: _____

Address: _____

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

Upcoming AASP – TPS Meetings

August 8-12, 2021
54th Annual Meeting of the AASP - The Palynological Society
Manizales, Colombia
Organizers: Ingrid Romero, Angelo Plata & Andres Pardo

Postponed to 2022