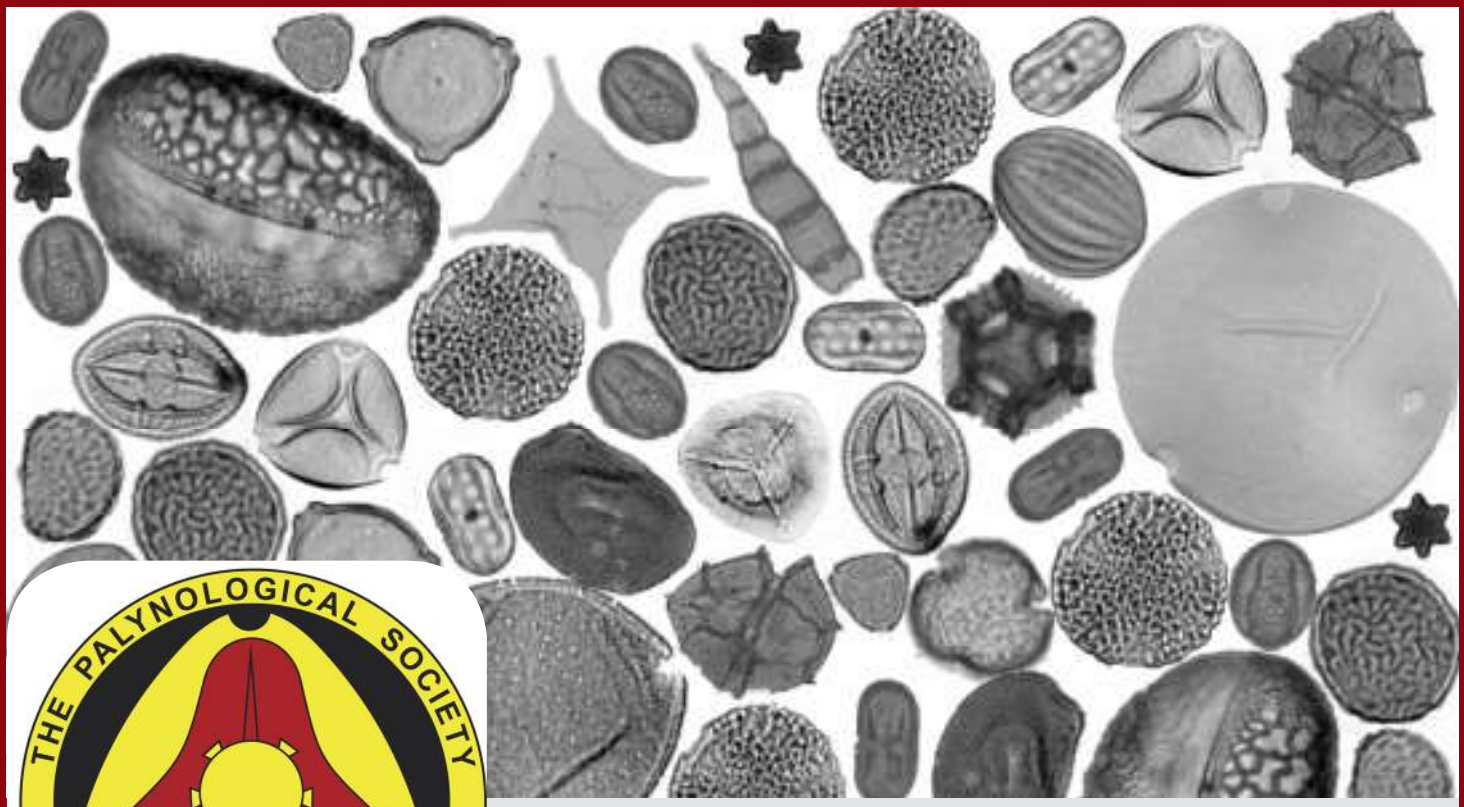
AASP - The Palynological Society

Promoting the Scientific Understanding of Palynology since 1967



Newsletter

September 2018
Volume 51, Number 3

Published Quarterly by AASP - The Palynological Society

AASP-TPS NEWSLETTER

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A.A.S.P.

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 (triannually), 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)

AASP Honorary Members
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)

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)

AASP-TPS NEWSLETTER

Published Quarterly by AASP - The Palynological Society

September 2018
ISSN 0732-6041

Volume 51, Number 3
Gilda Lopes, Editor
Jen O'Keefe, Associate Editor

To express interest in open correspondent positions, please send an email to: gildamlopes83@gmail.com

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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 AASP-TPS members,

My fourth letter as AASP president is written just coming home from a fantastic Annual meeting in Calgary ending with a hike up to the famous Burgess Shale locality at Walcott's Quarry. However, let me begin from the start of the conference. The first Sunday (August 5th) a whole "bunch" of us participated in the pre-field conference trip to the Tyrrell Museum in Drumheller. If you have not been there, put in on your travel list. This museum is amazing! In addition to Kimberley Bell, our superb conference organizer and guide, we were also very fortunate to have Dennis Braman as our guide to a couple of the localities in the area. Together they gave us a good overview of the Late Cretaceous geology and biostratigraphy of this part of the Western Interior Basin.

The meeting ran very smoothly, and since it was a relatively small meeting (approx. 40), all attendees seem to be present at all talks, giving the conference a feel of being much bigger than it actually was. Special sessions in the honor of Art Sweet and Len Hill and a special CAP session gave the conference an interesting insight and flavor of Canadian Palynological research. In addition, the general Palynology session and a special session on Applications of palynology to environmental science gave the conference a broad picture of palynology with many high-quality talks. Conversations and discussions during breaks added a nice atmosphere to this meeting. The Wilson Award was given to Alex Wheeler for his excellent talk on Palynology of the Late Permian Galilee Basin (see the article in this Newsletter). The AASP Medal for Scientific Excellence was awarded to Professor David J. Batten, who unfortunately was not able to attend, so it was his daughter, Sarah McNair, who flew in to receive the award on David's behalf. To most of us, David Batten needs no introduction, but to those who might not know him, David is best known for his contributions to Mesozoic terrestrial palynology and palynofacies analysis, and his research has covered a wide range of palynological and paleobotanical topics. A paper will appear in Palynology.

Social events are important to any conference, and the organizers had lined up super nice social events including an icebreaker in the patio of the Marriott and a Luncheon Beer and Bash, both well attended.
A more sad part of the meeting was the fact that Lanny Fisk no longer is with us (an obituary will appear in the

newsletter). During the time his talk was scheduled, Joyce Lucas-Clark was kind enough to share some words about Lanny, emphasizing a.o., that Lanny was a true friend, one of the nicest things one can say about a person. Lanny will be missed.

The post-conference field trip was a highlight for those of us lucky enough to attend. The visit to the UNESCO Heritage Site of the Burgess Shale at Walcott's Quarry in Yoho National Park, British Colombia was amazing. The fossil richness was such that turning a piece without finding fossils was almost difficult! An add-on value is the beautiful hike to get there, through the mountainous Rocky Mountain floras with views of waterfalls, lakes, ice sheets, etc. The only minus was the smog of the many forest fires that made our view rather blurry.

Kimberley Bell and Thomas Demchuk had done a great job to organize this meeting, and particularly, I would like to thank Kimberley that has taken care of all the practicalities. If there was anything we missed during the Annual AASP Meeting this year, it was to have had more attendees taking part in this well organized, interesting meeting!

I will report more Board Matters in my next letter, however, there are two issues I would like to make you aware of in addition to welcoming the new Board Members Sofie Lindström from GEUS, Copenhagen as Director-at-large and Julia Gravendyck from Berlin as Student Director-at-large. Thanks also to our superb re-elects: Treasurer Rebecca Hackworth, Secretary Stephen Stukins, and Managing Editor James Riding. Without you AASP would not function!

- The Board is suggesting some small changes in the Awards Committee that will need minor changes in the Bylaws. These will be out for voting soon. These include that we will have a gradual shift of members over time to engage younger and more members in the associations work. At the same time, we would like to ensure that committees are not replaced in "one go" to secure transfer of knowledge and experiences. Niall Paterson is the new member and leader as of August this year, and Martin Farley, Fred Rich and Reed Wicander are still on the committee.
- In order to recruit more members from low income countries, the Board has decided to offer membership of 20 US $ to members from nations the World Bank Listing as **low, lower-middle, upper-middle Economies** (Income is measured using gross national income (GNI) per capita, in U.S. dollars, converted from local currency using the *World Bank Atlas* method.) These members will receive Palynology online but will be full members. If you have colleagues in these countries PLEASE, help us spread the word!

I wish you all a nice and productive fall!
Gunn

Managing Editor's Report

1. Impact Factor

The 2017 Impact Factors were released at the end of June and our metric has very slightly decreased from 1.543 in 2016 to 1.383. This is an extremely minor (0.16) change, and as such should not overly concern us. These minor perturbations are to be expected, and our overall trajectory is still upwards. Taylor and Francis will compile full citation data as part of our next publishing report to determine why there has been this slight decrease. *Palynology* currently ranks 119/222 in the Plant Sciences Journal Citations Report (JCR) category, and 24/55 in the Palaeontology JCR category. Our journal is in quadrant 3 in the Plant Sciences category, and within quadrant 2 in Palaeontology for 2017. Taken as a whole, I feel that we can be extremely pleased with our place in the world.

2. Page budget for *Palynology*

We have a relatively large number of accepted papers online at the moment. This has stimulated discussions with Taylor and Francis regarding an increase in the annual page budget. We have agreed that, as of January 2019, the page budget will rise from 568 to 668. This change will ensure that authors do not have to wait too long before their papers are assigned a volume number and a page range. The increased number of pages has, this time, come at a cost to the association. Our annual member charge will increase from $28 to $33 for online access only, and from $33 to $37 for print and online access. This increase in our payment to Taylor and Francis will largely be offset by a higher stipend and increased royalty payments.

3. Any other business

A Supplement to Volume 42 on the dinoflagellate genus *Spiniferites*, guest edited by Kenneth Mertens, will be published online later this year. This item will be open access and online only; please note that it will not be paper-printed (by AASP). It has been entirely paid for by page-charges from the authors.

During May 2018, Parts 1 and 2 of Volume 42 of *Palynology* were printed and distributed. Part 3, comprising ten research articles, has now been published online; the contents of this issue are reproduced below. This part will be printed and distributed, together with Part 4, in early November.

Taylor and Francis have recently changed the typesetters they use. A paper by Fang Gu and three others on the the latest Pleistocene–Holocene of the western South Atlantic was published online on the 29th of June 2018. This was the final one processed by the old typesetters. Since then I have accepted 12 further papers which are presently being typeset by the new company. Authors should see their page proofs very soon.

James B. Riding
Managing Editor, AASP – The Palynological Society British Geological Survey
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United Kingdom
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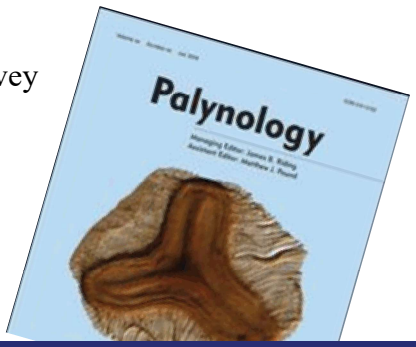
E-mail: jbri@bgs.ac.uk

1st August 2018



The contents of *Palynology* Volume 42, Part 3 (August 2018)

New Board of Directors

Introducing the 2018-2019 Board of Directors (from left to right, and from up to bottom): Gunn Mangerud, President; Stephen Stukins, Secretary; Katrin Ruckwied, President-elect; James Riding, Managing Editor; Rebecca Hackworth, Treasurer; Sofie Lindström, Director-at-Large; Annette Götz, Director-at-Large; Julia Gravendyck, Student Director-at-Large.








2018 Elections Report

The Ballot Committee would like to congratulate our newly elected board members and thank all the candidates that were standing for office in this year's election.

The results of this year's ballot are:

Secretary: Stephen Stukins, Natural History Museum, London
Treasurer: Rebecca Hackworth, Chevron
Managing Editor: James Riding, British Geological Survey
Director-at-Large: Sofie Lindström, GEUS
Student Director-at-Large: Julia Gravendyck, Freie Universität Berlin

The committee offers special congratulations to our Secretary, Treasurer and Managing Editor on their unanimous re-election. Well done Stephen, Rebecca and Jim! This clearly reflects the fantastic work you are all doing in your respective roles. We would also like to take this opportunity to recognise those individuals who are rotating off the board for their service to the society.

As in recent years, the election was conducted electronically via SurveyMonkey and the ballot distributed to all members who paid through 2018. If you did not receive a ballot or an e-mail encouraging you to request to vote, please contact the Secretary, Stephen Stukins.

Following last year's trend, voter turnout was relatively low, with only 38% of the electorate voting. Don´t forget to vote! Your oppinion matters!

Gunn Mangerud,
AASP-TPS President

On behalf of the Niall W. Paterson & Gilda Lopes,
AASP-TPS Ballot Committee 2018

New Awards Committee Chairman

Niall W. Paterson

I began my career in geoscience in 2001 at the University of Glasgow, Scotland, where I developed a strong interest in palaeontology and stratigraphy. My introduction to palynology came in 2005, when I started a PhD at Trinity College Dublin, Ireland, working under the supervision of Geoff Clayton. I was awarded my PhD in 2009 for a thesis on the palynology of the Upper Devonian – Mississippian of the Eastern USA. Later that same year I began working as a biostratigrapher for ExxonMobil in Houston, Texas.

I returned to academia in 2013 when I commenced a postdoctoral position with Gunn Mangerud at the University of Bergen, Norway. My initial work in Bergen aimed to produce a palynozonation for the Upper Triassic of Svalbard and the Norwegian Barents Sea. The focus of my current research is on the palynology of the Permian – Triassic boundary, as well as in the correlation of Triassic – Early Jurassic strata across the greater Barents Sea region.

With my return to academia, I have become more increasingly involved with the AASP–TPS, and was elected to the role of Director-at-Large (DAL) in 2016. Since then, I have also had the opportunity to serve as an Assistant Editor for Palynology, as well as on the Ballot Committee for the 2017 and 2018 elections. Following the end of my term as DAL, it is a great honour to continue serving the society in my new position as Awards Committee Chairman. I would like to take this opportunity to thank Martin Farley for his excellent work as the previous chair, and to acknowledge Pi Suhr Willumsen, who stepped down from the committee this year. I am greatly looking forward to this new role, and to having the opportunity to work together with the other committee members.

Niall W. Paterson
niall.paterson@uib.no

Grants and Awards 2018

David Batten - Medal of Scientific Excellence 2018

In recognition of his many outstanding scientific achievements in palynology, spanning 50 years of publishing, it was an honour for AASP to bestow upon Professor David J. Batten its Medal of Scientific Excellence. There is no way to shortly list his achievement's, however as one example, his comprehensive reviews of palynofacies and Mesozoic miospores in the three-volume AASP book of 1996 remain standard references to this day. David's many publications on palynofacies, megaspore, the Wealden palynology and geology and Mesozoic spores and pollen are all part of his important contributions to our field.

Student Travel Grants Winners

Sandy McLachlan

School of Earth and Ocean Sciences, University of Victoria, PO Box 1700, STN CSC, Victoria, BC,Canada V8W 2Y2

My MSc research has focused on Cretaceous dinoflagellate cysts and now I am continuing my work in the same area as a PhD student. My recent research conducted through the Paleoenvironmental and Marine Palynology Laboratory, School of Earth and Ocean Sciences, University of Victoria, British Columbia has made considerable advances into the regional palynological frontier for the Mesozoic that is the northeast Pacific. Working collaboratively, I have begun to make strides toward the resolution of the age, paleoenvironmental circumstances, and paleogeographic provenance of Nanaimo Group strata. Presentation of these findings within the *Applications of palynology to environmental science* technical session served to promote awareness within the scientific community of the poten-

tial for further Mesozoic research in the North Pacific. The taxonomic implications of the current work serve to contribute to new understandings of dinoflagellate cyst eco-group association and to the body of data lending to interpretations of dinoflagellate cysts as indicators of paleoproductivity. Headway into Mesozoic marine palynology in the North Pacific also stands to provide an insightful paleobiogeographic contrast with the extensive body of work which has been carried out in the Atlantic and Maritime region of eastern Canada.

Vera Korasidis
186 Berringa Road, Park Orchards, Victoria, Australia, 3114
Email: verak@student.unimelb.edu.au

I am currently in my third year of a Doctor of Philosophy (Earth Science) at the University of Melbourne. Attending the annual meeting of AASP-TPS in Calgary was invaluable to my PhD. I was eager to interact and present my latest findings with others who share an interest and passion for palynology and reconstructing paleoclimates and environments. In addition, I was looking forward to present my new paleoclimate record, derived from new palynological analysis of Middle Eocene through to Middle Miocene coals in southeastern Australia, that relate to the global Cenozoic transition from greenhouse to icehouse conditions.

Student Travel Grants will be available to the 52nd Annual Meeting in Ghent!

Applications are typically due immediately following the abstract submission deadline.

Instructions for applying will appear in the December 2018 Newsletter.

Undergraduate Student Award Winner

Laura Devine
University of Porthsmouth, UK

My name is Laura Devine and whilst I am originally from Northern Ireland, I am currently studying Palaeontology at the University of Portsmouth. I am about to start my third year at Portsmouth, however, over the summer I spent two weeks on the Dingle Penninsula, Southern Ireland, conducting fieldwork towards my 'end of year project'.

Looking back at my first two years at University, I have gained a lot of knowledge and skills from the the various lecturers and subjects. First year gave me a good foundation in general science, geology and palaeontology, while in second year, the modules were more focused towards various palaeontological aspects, such as Vertebrate Palaeontology, Palaeobotany and Micropalaeontology; the last of which included my palynology coursework. This involved regular laboratory work and sessions on the scanning electron microscope (SEM), which were supervised by PhD students and my professor and course leader, Dr Tony Butcher."

Undergraduate Student Awards Guidelines

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 AASP Undergraduate Student Award.

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

The following institutions already 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.

A faculty member, who is a member in good standing of AASP, and who teaches an appropriate course, may

nominate the course using the Registration Format found below. This should be cut-and-pasted into a word document and sent to the awards committee chair at: niall.paterson@uib.no. Upon approval by the Awards Committee, faculty teaching approved courses may nominate a student to receive the award at any time of the year on the basis of their qualifying criteria by sending the name, address, and email address of the recipient to the Awards Committee Chair and Secretary (s.stukins@nhm.ac.uk). Additionally, faculty must send the name of the winner, a paragraph about their achievements, and a photograph to the newsletter editor (gildamlopes83@gmail.com) for inclusion in the March newsletter (for awards made between July and December) or June newsletter (for awards made between January and June) each year.

Each award consists of one year's free membership in the Society to include digital issues of the Society's publications, the journal *Palynology* and the quarterly newsletter, discounted registration fees at Society meetings, and eligibility for Society awards.

AASP 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:

AASP-TPS New Data Policy

Dear AASP-TPS members,

Many of you will be aware that this last year in Europe, the new General Data Protection Regulations (GDPR) came into effect. Although we are not just restricted to Europe in our society, it is still good practice to look after your personal data. We will never use the data that you provide us for any other purpose than those specifically for the society (e.g. contacting you with our Newsletter, blast emails with society news/information etc); we will never pass on your details to third parties and finally, you have the ability to access your details on the website to make any necessary changes. We do have the membership directory on the website that is only available for members where some of your information is shared. If you do have any concerns then please contact myself or any other board member.

Stephen Stukins
AASP-TPS Secretary

Proposed By-Law Changes

The following changes to Articles Six and Seven (in boldface) to the by-laws were passed by the incoming board of directors during the 2018 Annual Meeting. Only those portions of the by-laws containing changes are printed for review. Please read them carefully. A vote will be held to ratify the proposed changes concurrent with the 2019 election of officers. You will be presented at that time with the option of ratifying the changes OR choosing not to ratify the changes. Should they be ratifed, the changes will take effect at the incoming board meeting to be held during the 2019 Annual Meeting.

ARTICLE SIX

Permanent Committees

6.06 The following committees are permanent committees established by these by-laws and are to be conducted within the following guidelines:

e. Awards Committee – The Awards Committee will consist of **three** members in good standing who are not current corporation officers or officers of the AASP Foundation. The Chair of the Committee will be approved by majority vote of the Board. The Chair will select **the two** other Committee members **based on suggestions from the Board**. Each member of the Committee will serve **for three years, and one**

member will be changed annualy to secure transfer of knowledge and experience. At such time, the Chair will select a new Committee member. **A member can be re-elected. The Awards Committee should, at any time, seek to have members who have minimal potential for conflicts of interest and if possible represent expertise across the diverse fields of palynology.** The Committee will be charged with accepting and reviewing applications for all the awards presented by the corporation, and submitting recommendations for the individual awards to the Board for final approval. The Chair of the Committee has the further responsibility for contacting the President, the Secretary, and/or the Treasurer to ensure that the individual awards are presented in proper time and timely manner.

ARTICLE SEVEN
NOMINATION AND ELECTION OF THE BOARD OF DIRECTORS

Procedure

7.01 The Nominating Committee shall propose no more than three (3) candidates for each Board membership position. The Nominating Committee shall submit to the Secretary **at latest** by February 15 of each year a list of nominees, together with a statement that all submitted nominees will accept the positions upon election. Not later than May 1, **or in due time before the scheduled Annual Meeting,** the names of candidates for the Board as submitted by the Nominating Committee shall be mailed or sent electronically to the membership. This communication may quote Article 7.02.

7.02 Additional nominations may be made by any member in good standing by submitting a petition, signed by at least nine (9) other members in good standing, to the Secretary by June 15.

7.03 The Ballot Committee shall arrange for the preparation and distribution of the ballots to members **in due time before the Annual Meeting is scheduled.** Ballots returned to the Ballot Committee **should be four (4) weeks after the ballot is published.** Abstaining votes and ballots received later than the closing date shall not be valid. A plurality vote shall be necessary and sufficient for election. In the event of a tie vote, a runoff election will be held. The Ballot Committee shall count all valid ballots and report the results to the Board of Directors through the Secretary.

7.05 Dates quoted within Article Seven assume a fall Annual Meeting. For years where the Annual Meeting is earlier, then all the deadlines will be brought forward in order to execute a proper and fair election in time for newly officers to take their position at the appropriate Annual Meeting. Bringing the dates forward should allow adequate time for the ballot to be open for at least four (4) weeks.

52ND ANNUAL MEETING OF THE AASP – THE PALYNOLOGICAL SOCIETY
GHENT, BELGIUM

GHENT UNIVERSITY

SUNDAY JUNE 30TH TO FRIDAY JULY 5TH 2019

The 52nd annual meeting of the AASP – The Palynological Society will be held at Ghent University in Belgium between June 30th to July 5th 2019. The meeting will be convened by Stephen Louwye & Thijs Vanden-broucke of the Dept. of Geology of Ghent University. We are looking forward to welcoming you to 'Het Pand', the conference center of Ghent University, for a three-day scientific meeting (**Monday to Wednesday, 1-3 July**) covering all aspects of palynology.

Attendants will have the possibility of joining a one-day field trip on Sunday June 30th : a tour of the famous sites of the Paleozoic of southern Belgium is envisaged. The organizers are currently entertaining various options for a post-meeting field trip: a first possibility is a one-day field trip to the well-known Ypresian and Rupelian international stratotypes. The second possibility is a two-day field trip to the Cretaceous of the Mons Basin and the Cretaceous and Jurassic of Boulonnais area in northern France. A more detailed program will be drafted during the months to come and will be announced in following circular. Please do not hesitate to contact us should you like to convene a special session, organize a workshop, or are keen to sponsor…

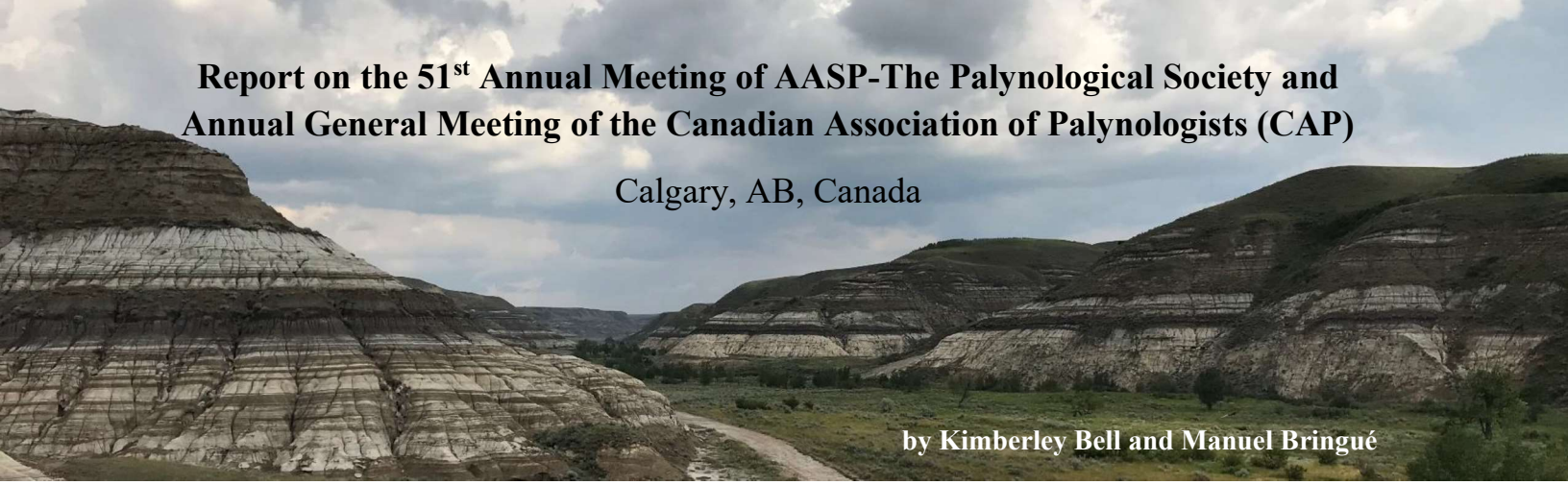
The venue 'Het Pand' is conveniently located in the very center of the historic city of Ghent. It is a historical building, a former abbey that was renovated into a conference center with all up-to-date facilities. A wide range of hotels is located in the vicinity of 'Het Pand', ranging from budget-friendly hostels to luxury hotels. Ghent is easily accessible by train. There are high-speed trains from London, Paris and Amsterdam to Brussels Midi railway station, and direct trains to Ghent from Brussels Airport (50 min) and Brussel Midi railway station (30 min). All details will be provided in due course.

Stephen Louwye – stephen.louwye@ugent.be
Thijs Vandenbroucke – thijs.vandenbroucke@ugent.be

In Memoriam...

Peter A. Hochuli

Sadly Peter Andreas Hochuli, a dedicated palaeobotanist and palynologist with comprehensive expertise in stratigraphy, palaeoclimatology, and palaeoecology died of cancer this March (27th March 2018), only 71 years old. An obituary will soon appear in *Palynology* (Schneebeli-Hermann et al., in press).



Report on the 51st Annual Meeting of AASP-The Palynological Society and Annual General Meeting of the Canadian Association of Palynologists (CAP)

Calgary, AB, Canada

by Kimberley Bell and Manuel Bringué

The 2018 annual meetings of AASP – The Palynological Society and CAP were held jointly at the Marriott Hotel, downtown Calgary August 5-10, 2018. The two palynological associations, representing a wide diversity of participants, successfully joined forces for a conference that was marked by fascinating keynote presentations, two highly anticipated field trips, technical sessions of state-of-the-art research presentations and poignant homages to palynological personalities.

Forty participants from nine countries registered for the meeting and represented highly diverse cultural and professional backgrounds, including academia, industry and government agencies. Our hosts were Kimberley Bell (Geological Survey of Canada) and Thomas Demchuk (RPS Group). The meeting was blessed with beautiful weather under Calgary's bright blue sky, up until the last few days when smoke from wildfires raging in British Columbia somewhat clouded the views. Participants enjoyed excellent catering for breakfast, coffee breaks, the icebreaker and the poster session, while many conveniently located restaurants provided excellent opportunities to meet with acquaintances – old and new – over lunch or dinner and to discover the surroundings over informal gatherings.

On Sunday, the pre-meeting field trip to the **Alberta Badlands and Royal Tyrrell Museum** (Drumheller, AB) kicked off the meeting. Participants spent the morning at the Royal Tyrrell Museum of Paleontology where they first enjoyed an informative Behind the Scenes Tour, led by Lorna O'Brien (head technician), followed by time to explore the extensive public galleries. The amount of unprepared and prepared fossil material that the group observed behind-the-scenes was staggering!

A BBQ lunch was provided at the quaint Last Chance Saloon, in Wayne, giving participants a flavour of small town Alberta and its coal mining history. Dennis Braman joined the group after lunch and shared his extensive knowledge on the stratigraphy and palynology of the Upper Cretaceous succession exposed in the Drumheller area of the Alberta Badlands. With Dennis' guidance the group explored the upper Cretaceous marine Bearpaw

Top: Alberta Badlands at Willow Creek, featuring the upper Cretaceous Horseshoe Canyon Formation. Left: Behind the Scenes Tour of the preparation lab at the Royal Tyrrell Museum (photo by Stephen Stukins). Right: Behind the Scenes Tour of unprepared fossil collection storage, Royal Tyrrell Museum (photo by Stephen Stukins).

Formation and overlying estuarine to nonmarine Horseshoe Canyon Formation at Willow Creek, and the upper Horseshoe Canyon Formation, Battle Formation and lower Scollard Formation at Horseshoe Canyon. The pre-meeting field trip arrived back in Calgary in time for the Outgoing board meeting, held in the private dining room at One18 Empire restaurant at the Marriott Hotel.

Top: Group enjoying the pre-meeting field trip at the Willow Creek Hoodoos. Middle: Group at Horseshoe Canyon (from left to right), top row: Graeme Martin, Alex Cullum, Iain Price, Rob Fensome, Gunn Mangerud, Stephen Stukins, Jennifer Cooling, Wei-Ming Wang, Julia Gravendyck, Dennis Braman; middle row: Joyce Lucas-Clark, Daniel Michoux, Jun-Wu Shu; bottom row: Kimberley Bell and Gilda Lopes. Bottom: Willow Creek Hoodoos displaying sharp contact between the marine Bearpaw Formation and overlying estuarine to nonmarine Horseshoe Canyon Formation.

Technical sessions kicked off on Monday, August 6 with a **Special Session in Honour of Leonard (Len) V. Hills and Arthur (Art) R. Sweet on Western Canadian Palynology and the Cretaceous/ Paleogene Western Interior of North America**. These two palynologists touched many lives and Thomas Demchuk's homage resonated deeply with the audience, especially with two family members of the late Art Sweet in attendance. The technical session kicked off with a fascinating Keynote by Dennis Braman (Royal Tyrrell Museum) on *Late Cretaceous palynomorph biostratigraphy of the Western Interior Basin with emphasis on southern Alberta and Montana*. The afternoon consisted of several talks as part the **General Palynology Session**, transporting the audience to different countries (e.g., Norway and its islands, North-central US, NW Australia) over different time intervals, and also included some interesting, new imaging techniques. The day concluded with the icebreaker on the Marriott's roof top patio, where drinks (including tasty local beer and spirits) and many delicious appetizers and desserts were enjoyed under the sunny skies.

Delegates on the rooftop patio at the Marriott Hotel (photo provided by Julia Gravendyck).

Members present at the 2018 CAP Annual General Meeting: From left to right: Manuel Bringué, Rob Fensome, Jen Galloway, Francine McCarthy, Thomas Demchuk, Kimberley Bell, Diana Tirlea, Anna Pieńkowski, Vera Pospelova and Sandy McLachlan.

The second day of the technical session (Tuesday, August 7) started with the **CAP Special Session: From Land to Sea - Innovative Research by Canadian Palynologists**, which discussed topics such as non-pollen palynomorphs at high latitudes, sediment trap studies and freshwater dinoflagellates, and concluded with a brilliant Keynote presentation by Rob Fensome (Geologic Survey of Canada) entitled *On the edge: almost 50 years of Mesozoic–Cenozoic palynology in eastern Canada*. The CAP Annual General Meeting took place during lunch at the One18 Empire (Marriott).

Presentations from the General Palynology Sessions ensued in the afternoon, tackling key palynological disciplines such as taxonomy and biostratigraphy, with some 'industry flavours'. All participants were delighted to see David Batten awarded the AASP Medal of Scientific Excellence, as a recognition for his immense contribution to palynology throughout his prolific career; David's daughter, Sarah McNair, travelled from Vancouver (British Columbia) to accept the Medal on her father's behalf. The Poster reception – also accompanied by a bar and food service – concluded the presentations for the day. Participants then gathered for the Business & Beer Bash at the Last Best Brewing & Distilling, downtown Calgary, which took the place of the traditional Business Luncheon.

On the morning of the third and last day of presentations (Wednesday, August 8), the General Palynology Session was marked by the absence of past AASP President Lanny Fisk, who passed away days before the conference. In lieu of his scheduled presentation, Thomas Demchuk and Joyce Lucas-Clark gave a touching tribute highlighting Lanny's prolific career, his passion for palynology and his contagious joie de vivre. Last but not the least, the **Theme session: Applications of palynology to environmental science** concluded the scientific presentations with talks covering a wide variety of topics, from melissopalynology to environmental tracers of anthropogenic impacts, through paleoecology. Additionally, Stephen Louwye made a presentation advertising the 52nd AASP meeting in Ghent, Belgium, July 1-3, 2019. Before the meeting officially closed, the AASP Awards Committee, chaired by Martin Farley, announced Alexander Wheeler as the recipient of the **L.R. Wilson Best Student Presentation Award** for his outstanding presentation on the *Palynology and palynofacies of the Late Permian Galilee Basin: Implications for the end-Permian palaeoenvironment* – Congratulations, Alex! The AASP-The Palynological Society Incoming Board Meeting took place during the late afternoon and early evening, after conclusion of the technical session.

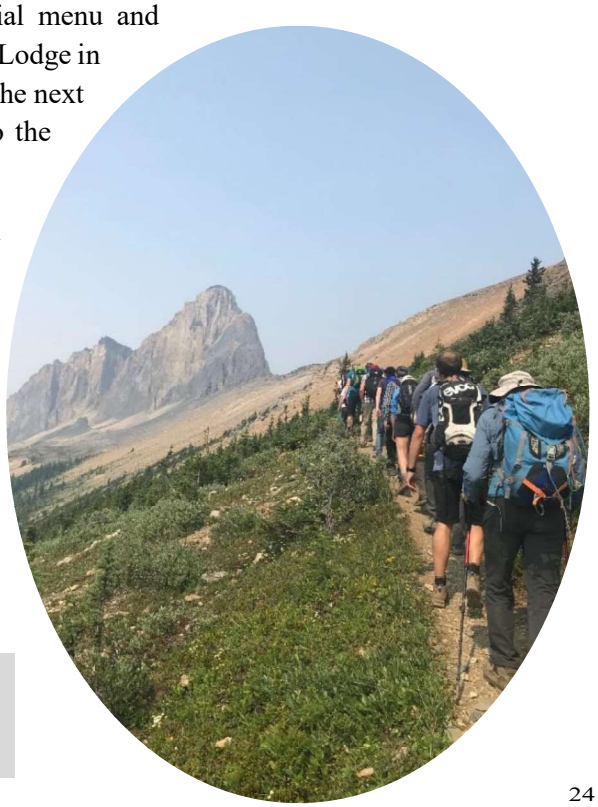
Sarah McNair accepts the AASP Medal of Scientific Excellence on behalf of her father, David Batten.

Martin Farley and Gunn Mangerud present Alexander Wheeler with the L.R. Wilson Award for Best Student Paper presented at the 51st Annual Meeting (photo by Stephen Stukins).

Views of the iconic Banff Spring Hotel from viewpoint located just (stratigraphically) below the P-T boundary. Back row (from left to right): Wei-Ming Wang, Alex Cullum, Daniel Michoux, Iain Prince, Stephen Stukins, Manuel Casas-Gallego, Jun-Wu Shu; front row (from left to right): Kimberley Bell, Manuel Vieira, Vera Korasidis, Gunn Mangerud, Chad Morgan (photo provided by Stephen Stukins).

To top off an already outstanding meeting, a group of thirteen adventurers embarked on a two day (Thursday, August 9 and Friday, August 10) post-meeting field trip to the **Canadian Rocky Mountains and world-famous Burgess Shale at the Walcott Quarry** near Field, British Columbia. Chad Morgan, a PhD candidate from the University of Calgary, generously shared his expertise on Paleozoic (especially Cambrian) stratigraphy and paleontology as field trip co-leader. The first day of the excursion covered a transect from the plains, through the foothills and front ranges, ending in the main ranges of the Canadian Rocky Mountains. Strata, fossils (palynomorphs, trace fossils, sponge spicules, stromatoporoids and Burgess Shale fossil *Margaretia dorus*, to name a few) and structures, ranging in age from the Cretaceous through Proterozoic were explored en route, and helped set the scene for the next day. The modern flora and fauna were also a major point of interest, with the Rocky Mountain Big Horned Sheep proving a major highlight. After a notably hot (highest ever recorded temperature in Calgary) and smoky first day, the group enjoyed a special menu and relaxing evening at Truffle Pigs Lodge in Field, BC, in preparation for the next day's strenuous hike up to the Walcott Quarry.

The heat and smoke stuck around for the second day of the post-meeting excursion, but did not deter this determined bunch, who hiked the 22 km round trip with 825 m elevation gain to the world famous Walcott Quarry without a single complaint! David, a most excellent guide from the Burgess Shale Geoscience Foundation, who delighted the group with an interesting and very informative narrative, accompanied us



Left: Rocky Mountain Bighorn Sheep – *Ovis canadensis* in Banff National Park (photo by Steve Stukins). Right: adventurous group on the final ascent to the Walcott Quarry, Mount Field, Yoho National Park.

Surrounded by world famous Burgess Shale fossils at the Walcott Quarry. Back row (from left to right): Alex Cullum, Stephen Stukins, Wei-Ming Wang, Darcy Bell, Manuel Casas-Gallego, Manuel Vieira, Chad Morgan, Daniel Michoux; front row (from left to right): Jun-Wu Shu, Gunn Mangerud, Kimberley Bell, Vera Korasidis (photo provided by Stephen Stukins).

to this UNESCO World Heritage Site. These 508 million year old fossils of soft-bodies marine animals, known for their exquisite preservation, proved every bit as amazing as expected!

Participants left commenting about the high quality of the technical sessions, intimate atmosphere of the meeting, fun social events, and superb field trips. See you at the next meeting in Ghent, Belgium!

Examples of Burgess Shale fossils (from left to right): *Olenoides serratus*, *Anomalocaris canadensis* (fragment), hyolithids, and sponges. Photos by Stephen Stukins and Kimberley Bell.

(From: http://eppc2018.ie/)

Report on the 10th European Paleobotany and Palynology Conference, Dublin, Ireland

By Kasia K. Śliwińska (GEUS)

The 10th edition of the European Paleobotany and Palynology Conference (EPPC) took place at the University College Dublin in Ireland on August 12-17, 2018. Over 400 paleobotanist and palynologists participating in the conference were welcomed by a very mild and pleasant Irish weather. The occasional showers felt rather refreshing, especially for those who came from countries hit by drought this summer.

The theme for this year meeting was 'A Multidisciplinary Science'. The aim was to bring together and highlight multi- and inter-disciplinary research within the field of palaeobotany and palynology. For many out of the 35 special sessions, it was also important to demonstrate that the understanding of the past climatic records and present processes can help us to predict our future in the elevated CO2 world.

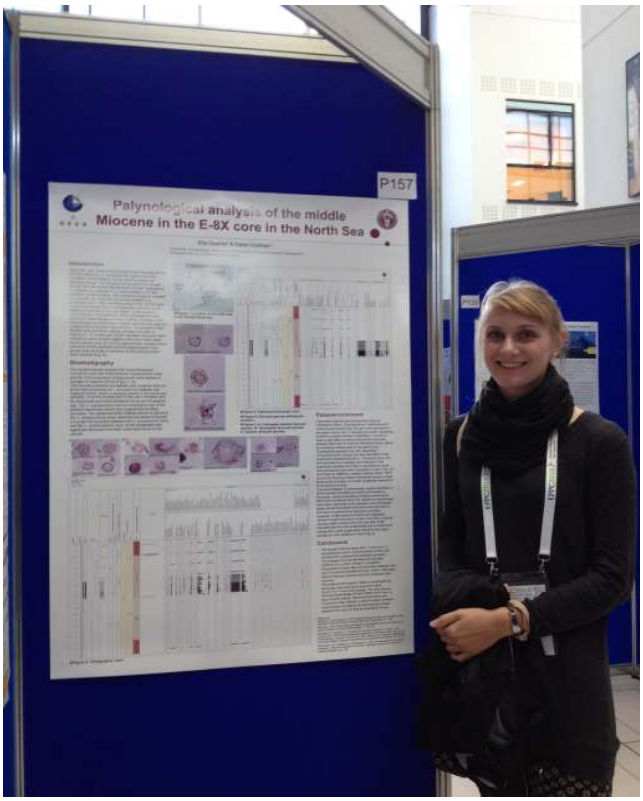
The program started on Sunday evening, with a lovely reception in the great surroundings of the historical Dining Hall at the Trinity College Dublin, Ireland's oldest surviving university. The technical program started Monday morning, with an introduction by Jennifer C. McElwain, the Chair of the organization committee. The scientific programme was initiated by three plenaryspeakers: Pete Coxon and Jane Stout (both from the Trinity College Dublin), and Caroline Stromberg (University of Washington)); followed by three keynote speakers: Leyla Seyfullah (University of Göttingen), Benjamin Bomfleur (University of Münster) and Claire Belcher (University of Exeter), which gave a great start for the conference.

The whole week was filled up with over 470 interesting presentations. What is more, in addition to the fantastic programme, the conference had an even gender balance (51% female vs. 49% male delegates) and attracted a high

number of students, 25% of all delegates.

Worth mentioning was also a fantastic selection of buffet-style lunches the first two days. Except for Wednesday, when we got a lunch box, which was very convenient for those heading for the mid-conference trip, delegates were offered a wide selection of warm and tasty meals each day.

In addition to the oral and poster presentations, the organizers offered a number of interesting excursions. For the mid-conference trip, the delegates could choose between a trip to the Dublin Botanical Gardens, a historical walk around the gorgeous Dublin or a coach trip to the Wicklow Mountains featuring the glaciation and palaeoecology of the area. The post conference trips included: a three day trip to either the Killarney in the South West of Ireland, or to the County Clare, featuring some botany and landscape evolution processes; a two day trip to the Cambrian, Devonian and Carboniferous rocks and fossils of the Hook Head peninsula in County Wexford, or a one day trip to the Castlecomer Discovery Park.



I am a big fan half a day mid-conference trips in particular. It helps to get some fresh air, to explore the city and to catch up with some colleagues on longer chats, without sacrificing participation in the scientific program. It is also good idea to get a refreshing break from interesting sessions, so one can avoid getting overloaded with science! Another opportunity for relaxing and networking was on Thursday evening at the gala dinner, which took place at the famous Guinness Storehouse.

In association with the EPPC2018, a number of smaller meetings of various organizations, such as Agora Paleobotanica AGM, the International Commission of the Palaeozoic Microflora (CIMP), the International Organization of Paleobotany (IOP) AGM and the Collegium Palynologicum Scandinavicum (CPS), took place. 17 out of 75 members of the CPS participated in the member meeting, which was organized by Sofie Lindström and Christian Pott. The meeting agenda was mainly focused on the content and impact of the CPS website as well as the economic status of CPS. Sam Slater, GRANAs technical editor, gave a short overview over the status of the journal. During the meeting, the members selected Niina Kuosmanen as a new board member, who will serve until 2020. Following the meeting, we adjourned to the "Clonskeagh House" for a dinner and

some beer.

EPPC2018 was a successful meeting and the paleobotanist and palynologists community is already excited for the next meeting which will take place in Prague in 2020.

As my closing remarks, I feel that I need to mention a concern shared by myself and many others, about taking photographs of oral or poster presentations without the consent of the author. In a time when everybody is equipped with a mobile phone, taking photos is fast, easy and can go unnoticed. This is however highly unethical to take photographs of other researchers results without permission, especially since a large part of the science presented at meetings is not published yet. This is a problem not related with the EPPC2018 in particular. Unfortunately, it seems to be an increasing trend on scientific meetings. As a scientific community, I think that we should address this issue and somehow make sure that authors' copyrights are not compromised.

(From: http://eppc2018.ie/)

Report on the Advanced Nottingham DinoCourse 2018

By Sarah Hawkes

The 2018 Advanced Course in Organic Walled Dinoflagellate Cysts was held between the 1st and 6th July at the British Geological Survey in Keyworth, Nottingham. This short course, which has a long history dating back to the early 1970's, was on this occasion taught by Peter Bijl, Martin Head, Jan Hennissen and Jim Riding.

The short course kicked off on the Sunday evening with a visit to "Ye Olde Trip to Jerusalem" pub. Locals claim that this pub is the oldest Inn in England, with the caves on which the pub is now situated estimated to date back to 1189AD. It is thought that these caves originally served as a brewery for the neighbouring Nottingham Castle. The room that had been booked for the icebreaker session was similarly carved from the sandstone rock that is inherent throughout the pub, which certainly served as a conversation starter for the geologists amongst the group. It was clear from this initial icebreaker session that this course had captured the interests of a diverse group of individuals, ranging from MSc and PhD students through to university staff, geological survey staff and industry professionals from 10 different countries. After a lovely meal, it was time to depart to prepare for the early start the following morning.

Monday morning began with an introductory lecture led by Martin Head focusing on nomenclature and dinoflagellate morphology to bring everyone up to speed. In the afternoon, Peter Bijl provided an overview of the dinoflagellate database PALSYS which is funded through the LPP Foundation. This database provides a useful tool for dinoflagellate workers providing taxonomic descriptions, synonyms, stratigraphic occurrences and an image catalogue. The LPP Foundation kindly provided each participant of the course with a complementary 3 year license which I am sure will be well utilised by all participants. The remainder of the afternoon was occupied with exercises focused on cyst morphology. Attempting to recreate *Peridinium* and *Gonyaulax* plate tabulation on translucent spheres is one of the more difficult tasks I have attempted in recent times! In addition to these exercises, Jim Riding provided some beautifully preserved assemblages to analyse in groups throughout the afternoon.

The remainder of the course primarily focused on stratigraphy and palaeoecology from the Triassic through to the Quaternary. This seemingly mammoth task was delivered through a combination of lectures discussing key species from both northern and southern hemispheres, alongside case study examples illustrating the use of dinoflagellates and other proxies to infer palaeoecology. These sessions were both informative and engaging, encouraging discussion amongst the group.

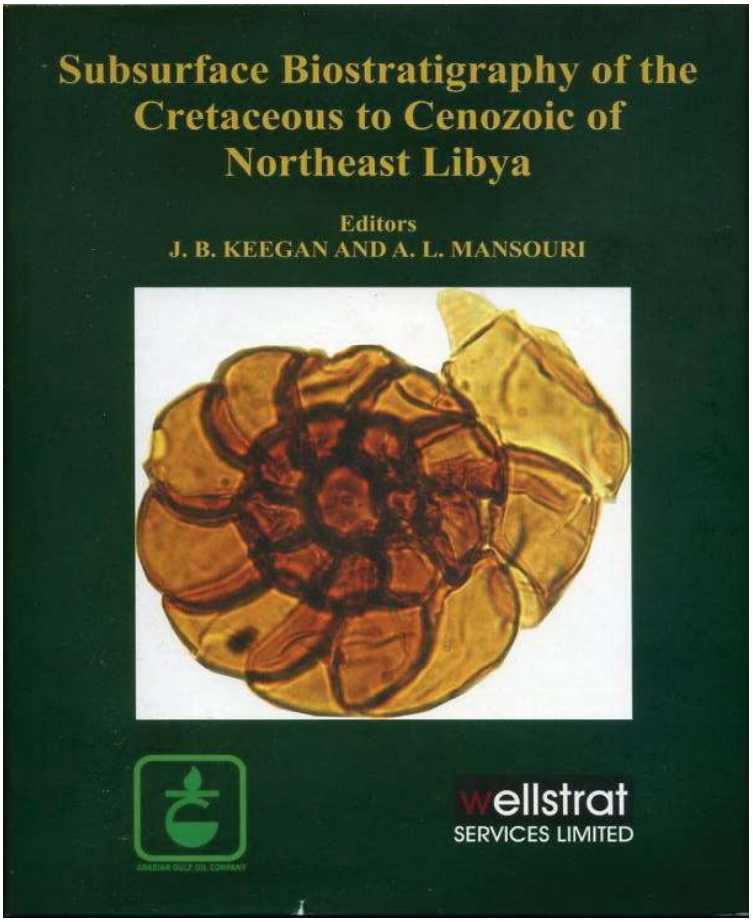
Wednesday afternoon saw a break from lectures in order to enjoy a field trip to visit the Lower Carboniferous limestones and Miocene deposits of the Brassington Formation on the southern edge of the Derbyshire Platform. This allowed us all to get some fresh air, enjoy the beautiful Derbyshire countryside and appreciate the unseasonably warm temperatures that the UK was experiencing for the duration of the course. Although this field trip did not lend itself to furthering our knowledge on dinoflagellates, the keen eyed amongst the group found numerous macrofossils including crinoids, bryozoans, brachiopods and corals that captured our interest. At the final locality of the day we observed the type section for the Brassington Formation which displayed exceptional specimens of fossilised wood that were deposited in a lacustrine environment.

Before we returned to Nottingham for the evening, we stopped off at "The Olde Gate Inn" in Brassington for the traditional course dinner. The beautiful summer evening encouraged us to choose a table outside in the beer garden while we had a few drinks and relaxed after a busy day. The food did not disappoint, although the request for a "super, super hot" chicken laksa was somewhat lacking for one participant who was particularly fond of spicy food and made it a personal challenge to find the spiciest meal that Nottingham could provide.

Socialising outside of course hours became a common occurrence amongst the group with casual drinks and dinners arranged on the bus back to the accommodation. The World Cup tournament served as an evening distraction with a memorable evening spent watching England beat Colombia in a penalty shoot out that had tensions running high amongst the locals. I must apologise to our Colombian participants for bringing this up again!

I can only speak from my own personal experience but I thoroughly enjoyed the course and the content and would not hesitate to recommend this to others. The knowledge and passion for their chosen areas of expertise was apparent in all of the instructors which made for a very interesting and engaging course. Jim went above and beyond organising the field trip as well as lunchtime visits to the BGS core library and geological walk for those interested. I can also say that the group of participants also made the course an enjoyable experience. Making connections with likeminded individuals in a niche area of expertise is always a valuable experience and to make friends out of this is the icing on the cake.

Thank you to Peter, Martin, Jan and Jim for all of your efforts and for making the course a memorable one.



Keegan, J.B., and Mansouri, A.L. (Editors): Subsurface Biostratigraphy of the Cretaceous to Cenozoic of Northeast Libya. Wellstrat Services Limited, Wrexham, United Kingdom, 300 pp., US$ 101.76, 2007.

This is a review of *Subsurface Biostratigraphy of the Cretaceous to Cenozoic of Northeast Libya* edited by Keegan and Mansouri (2007). The book was produced under the scientific patronage of the Wellstrat Services Limited, an independent geological consultancy company, which offers a full range of analytical geological services, and of the Arabian Golf Oil Company, based in Benghazi, Libya. The publisher has done a distinct service by bringing out this book. The book compliments the previous standard references on the Paleozoic and Mesozoic Palynostratigraphy of Northeast Libya (e.g., Owens & Thusu 1985; El Arnauti et al. 1988) and other previously published studies.

The geological areas of Libya can be divided into three parts; South, East and West. The southern part is characterized by the presence of Precambrian rocks, the (north) eastern part is covered with Cretaceous rocks, and the western part by Quaternary rocks. The Cretaceous depositional systems of Libya are known to be very prolific with respect to oil and gas exploitation. Geologically, the northeastern part of Libya is one of the regions of Libya that is most well studied by many geologists.

All contributors of this book are experienced geologists and engineers actively engaged in research and petrol industry, and the authors' enthusiasm for the topic is obvious throughout the book. The book is divided into thirteen chapters written by 7 authors, which for the most part are under 20 pages in length, and include detailed reference lists.

Keegan and Mansouri's book starts with a succinct introduction and stating the scope of the book as: "This book presents a series of chapters on the biostratigraphical results of a major geological study based on the examination of borehole material from 78 exploration wells located in various parts of Northeast Libya, including the Cyrenaica Platform, Jabal Akhdar Uplift, Marmarica Uplift and Soluq Depression".

Following the introduction, Keegan's overview chapter (chap. 1) outlines the used database with a total of 2608 samples analysed for micropalaeontology, nannofossils and palynology. Major scopes are to summarise the Cretaceous to Cenozoic regional geology of Northeast Libya, to establish a zonation for the Late Cretaceous to the Cenozoic of northeastern Libya, and to present the Late Cretaceous to Cenozoic micropaleontology, calcareous nannofossils and palynology zonation schemes tied to the sea level curve of Haq et al. (1987) modified against the ages of Gradstein et al. (2004).

Chapter 2 entitled "Summary of the Mesozoic and Cenozoic regional geology of Northeast Libya" by Yanilmaz and colleagues provides a summary of the regional geology (stratigraphy, tectonic history) for the Mesozoic and Cenozoic of northeastern Libya.

The third chapter entitled "Early Cretaceous microfaunas from Northeast Libya" by Coles details the Early Cretaceous (Albian-Neocomian) microfaunas (foraminifera and ostracoda) recorded in northeastern Libya and includes a synthetic stratigraphic chart.

In chapter 4, Starkie presents the Early Cretaceous calcareous nannofossils. Generally, temperature and trophic resources are considered the most important factors affecting the distribution of calcareous nannoplankton, and ecological preferences of some of the studied species are known (e.g., Roth and Bowdler 1981; Mattioli 1997; Lüning et al. 1998; Nederbragt and Fiorentino 1999; Herrle 2003; Marzouk and Lüning 2005; etc.). Furthermore, partial dissolution of nannofossils is a widespread phenomenon in nannofossil records. If dissolution is very strong, the preserved nannofossil distribution patterns cannot be used for ecological interpretations because they no longer represent the original composition of the nannoflora. Resistance to dissolution differs among the species, including very fragile to very resistant species (Crux 1991). Roth and Krumbach (1986) proposed that nannofossil distribution patterns can still largely be used for palaeocological interpretations if the abundance of the resistant species *Watznaueria barnesiae* (Black, 1959) Perch-Nielsen, 1968, does not exceed 40 % of the total assemblage.

Coles presents the Late Cretaceous (Maastrichtian-Cenomanian) microfaunas from Northeast Libya in chapter 5, and Starkie describes and interprets the Late Cretaceous calcareous nannofossils in chapter 6.

Chapter 7 by Keegan and Darrin covers the Late Cretaceous (Cenomanian-Campanian) palynofloras and this chapter is a valuable compilation of regional biostratigraphical data. The Palaeogene microfaunas (foraminifera and ostracoda) are discussed by Coles in chapter 8.

The ninth chapter by Starkie studies the Palaeogene (Middle Palaeocene to Late Oligocene) calcareous nannofossils.

Chapter 10 by Stead is by far the largest in terms of page numbers and describes the Cenozoic palynoflora of northeastern Libya with detailed descriptive palynological information. The Neogene microfaunas from northeastern Libya are the focus of chapter 11, and Starkie covers the Neogene calcareous nannofossils in chapter 12.

Coles and Keegan (chapter 13) present a biostratigraphical synthesis of the Early Cretaceous to Cenozoic of northeastern Libya with 18 palaeogeographical maps for 18 different stratigraphical intervals.

Throughout the book, the figure captions are very detailed and readers will be able to understand the figures without reading all of the text. The font-size of the text, paper quality, and binding are excellent. The book is completed by seismic sections, data tables, geological maps, well logs, high SEM plates of light and scanning electron microscope photomicrographs of foraminifera, nannoplankton, ostracods, dinoflagellate cysts and sporomorphs,

ranging in age from the Early Cretaceous to Pliocene.

To summarize, the book *Subsurface Biostratigraphy of the Cretaceous to Cenozoic of Northeast Libya* constitutes a fundamental work which is a necessity for all researchers involved in the study of the Subsurface Biostratigraphy of the Cretaceous to Cenozoic of Libya and North Africa. This book will be an inspiration for the new generations of Earth Scientists working in Libya and North Africa to deepen their studies and to join forces with pioneers in solving new challenging tasks ahead.

We thoroughly enjoyed the opportunity to review and read this comprehensive "Atlas" and we recommend it as a useful comprehensive reference for micropaleontologists, palynologists, and stratigraphers, and a must-have for all engineering consulting firms, particularly those engaged in mapping and subsurface exploration and development. A working tool, a kind of practical manual that a doctoral student or specialist in palynology can open at the moment, such as a dictionary, to solve shortcomings and identifications of palynological taxa and their specific stratigraphic interest. This manual is certainly not the first book or atlas that deals with this discipline and it will not be the last.

Book chapters and authors

1. Subsurface Biostratigraphy of the Cretaceous to Cenozoic of Northeast Libya: Project scope and methodology

   James B. Keegan
2. Summary of the Mesozoic and Cenozoic regional geology of Northeast Libya

   Emin Yanilmaz, Abdalla L. Mansouri, & David P. Huffman
3. Early Cretaceous microfaunas from Northeast Libya

   Graham P. Coles
4. Early Cretaceous calcareous nannofossils from Northeast Libya

   Steve Starkie
5. Late Cretaceous microfaunas from Northeast Libya

   Graham P. Coles
6. Late Cretaceous calcareous nannofossils from Northeast Libya

   Steve Starkie
7. Late Cretaceous palynofloras from Northeast Libya

   James B. Keegan & Darrin T. Stead
8. Paleogene microfaunas from Northeast Libya

   Graham P. Coles
9. Paleogene calcareous nannofossils from Northeast Libya

   Steve Starkie
10. Cenozoic palynofloras of Northeast Libya

Darrin T. Stead

11. Neogene microfaunas from Northeast Libya

    Graham P. Coles

12. Neogene calcareous nannofossils from Northeast Libya

    Steve Starkie

13. Biostratigraphical synthesis of the Early Cretaceous to Cenozoic of Northeast Libya Graham P. Coles, & James B. Keegan

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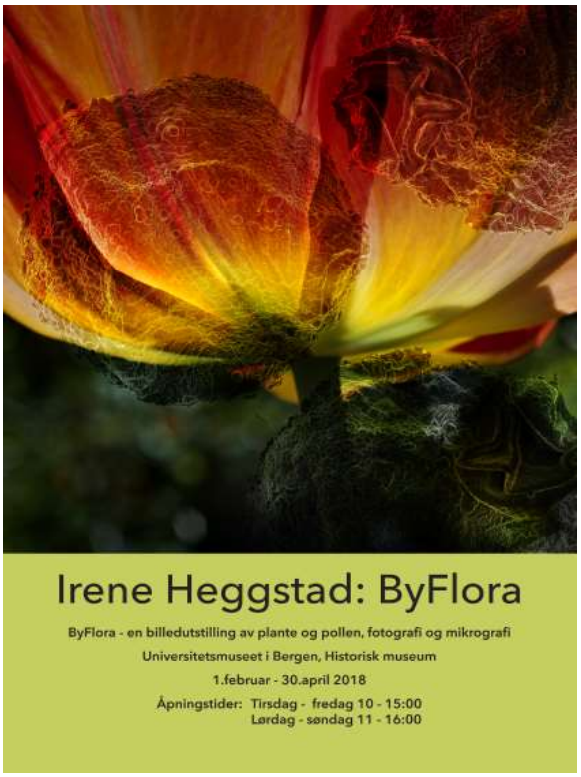
By Mohamed Abioui, Mohammed Benssaou, Lhassan M'Barki
Ibn Zohr University, Morocco

ByFlora: Combining Art and Science

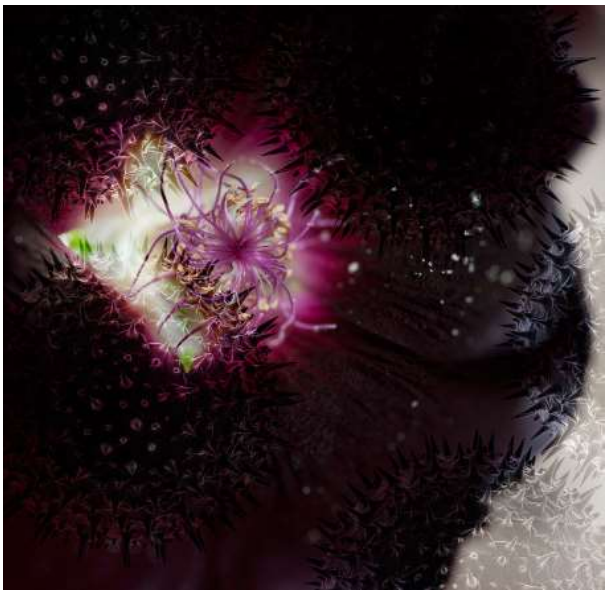


Dear AASP-TPS Members,

ByFlora / CityFlora is a personal project focusing on the city flowers and pollen -- in a combination of photography and microscopy My name is Irene Heggstad. I am working as a technician and science photographer in a laboratory for analytical electron microscopy in the Department of Earth Science at the University of Bergen in Norway.
My primary task is to provide assistance to students and researchers from all disciplines, to offer them the best the microscopic methods have to offer.
I have often thought of creating images that could be of interest for everyone to see. Images that are understandable and give people a grasp of the microscopic world. Why not use the scientific equipment with a dissemination purpose? Then my eyes fell on biology. It is all around us - and it is so lovely looking!
During Spring 2017 I was photographing flowers and collecting pollen. And the idea of combining both elements in an image started to make sense. I made the pollen grains conductive with a thin layer of Iridium and magnified >5000 x in a scanning electron microscope. The color photograph and the black/white micrographs were then digitally combined - and the result was unique, with high-quality color images being produced.
What you see is what there is. There is no manipulation of the images, apart from ordinary cropping and adjusting brightness and contrast.
ByFlora has been exhibited at the House of Photography in Oslo in 2017, and at the University Museum of Bergen in 2018. In Bergen, 20 images of my pieces were allowed to decorate the museum walls for 3 months during the pollen season. The exhibition was a success, it had a lot of visitors - and I was lucky to get lots of positive feedback. All my images are for sale as a limited edition, in both 16 and 24 inches, only 8 of each size will be printed. You are welcome to see more images on Irene Heggstad in Facebook and Instagram.

Best regards
Irene Heggstad
Contact: Irene.Heggstad@gmail.com
Poster: *Colorful Tulip*

Stepmothers



The Inner of the Hollyhock

News from Eastern Europe

By Peta Mudie

In May, Keith Richards of University of Amsterdam's Institute for Biodiversity and Ecosystem Dynamics successfully defended his PhD thesis on "**Studies in Caspian palynology: Six million years of vegetation, climate and sea level change".** Congratulations, Keith, on this important work in some of the more remote regions of Eurasia that is rapidly changing under the pressure of extensive oil exploration. Keith's thesis highlights some of the geological, geographical and climatic events in the depositional history of the Caspian Sea, from the latest Miocene to the present. In a series of seven co-authored papers (Richards, 2018), Keith has combined pollen and dinoflagellate cyst (dinocyst) palynostratigraphies with sedimentological and micro-paleontological data to unravel the paleoecological history of the region. His time slices range from Late Miocene and Plio-Pleistocene transition on the Apsheron Peninsula in Azerbaijan, West-Central Caspian Sea to Holocene and Recent in the Volga Delta, Northern Caspian Sea.

Keith's works shows that just over 6 million years ago, the Caspian Sea was connected to the brackish-marine Paratethyan Sea during the 'Pontian' regional stage, before becoming an isolated lake basin during the Pliocene. Palynological data from Late Miocene-Early Pliocene outcrop samples in Azerbaijan trace cyclical fluvial and deltaic-lacustrine environments, trending towards increasing dry conditions. A change from steppe to forest vegetation suggests climatic warming related to the 'Mid Pliocene Warm Period'. Dinocyst and foraminifera data indicate a return to marine conditions during the 'Akchagyl' regional stage at the end of the Pliocene; the benthic foraminifera indicate that marine waters may have come from the Arctic Ocean during this time. Brackish dinocysts in the early Pleistocene 'Apsheron' regional stage show similarity with the Black Sea region and Eastern Europe. Late Pleistocene sediments of the Emba-Ural Delta region of Kazakhstan, northeastern Caspian region, show the desert dunes are linked with the Atelian lowstand of the Caspian Sea during MIS (Marine Isotope Stage) 4. Lagoonal deposits contain pollen from thermophilous-hygrophilous trees of East Asian affinity during MIS 3. Palynological analyses from the Volga Delta recognise four phases of Holocene delta development. Incision of the delta occurred during the Derbent lowstand at the time of the 'Medieval Warm Period', followed by an expansion of aquatic vegetation equated with the 'Little Ice Age' highstand. The Caspian Sea that we see today is the result of a continuing process of basin isolation and periodic reconnection with the world's oceans.

Richards, K. 2018. Studies in Caspian palynology: Six million years of vegetation, climate and sea level change. PhD thesis, U. of Amsterdam, The Netherlands, 264 pp.: **http://dare.uva.nl/search?identifier=333ad207-8303-4f5c-8ebb-b11d24fc8870**

Hoyle, T.M., Leroy, S.A.G.., López-Merino, L., Richards, K., 2018. Using fluorescence microscopy to discern in situ from reworked palynomorphs in dynamic depositional environments — An example from sediments of the late Miocene to early Pleistocene Caspian Sea. Review of Palaeobotany and Palynology 256: 32-49.

Hedieh Abbasian, H. and Keith Richards, K. 2018. Lithofacies and ichnofacies distribution in offshore sediments of the Langarud–Rudsar region of Iran, southern Caspian Sea. The Holocene 1-11 https://doi.org/10.1177/0959683618784438.

Correspondents Wanted!

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
- India Correspondent
- Asia Correspondent
- South Africa Correspondent
- South America Correspondent

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

Gilda Lopes & Jen O'Keefe

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

Name: _____

Address: _____

_____

_____

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

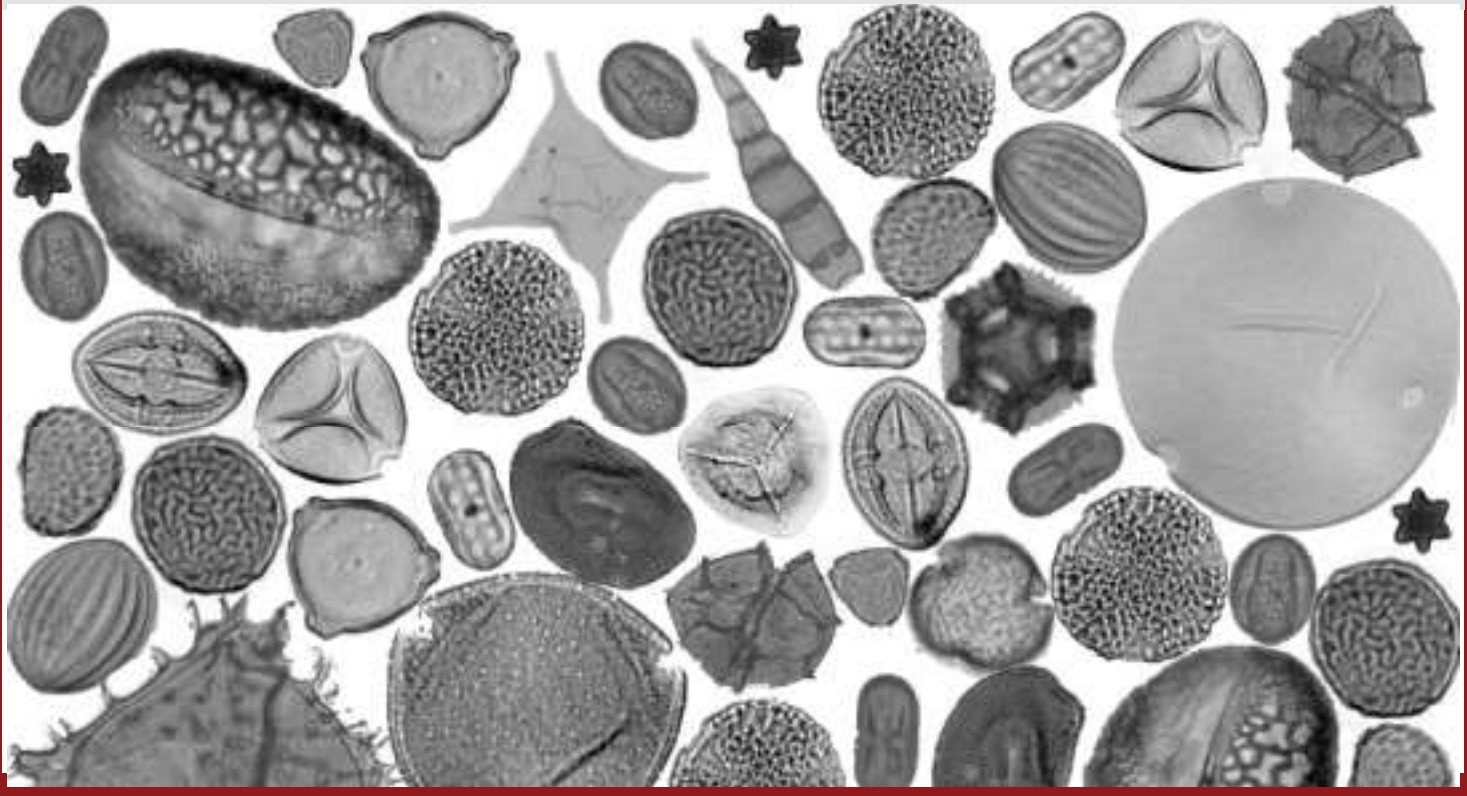
Contribution Enclosed: $_____ **I wish to pledge: $**_____

Future Meetings of AASP - The Palynological Society

2019 - 52nd Annual Meeting
Ghent, Belgium
Organizers: Stephen Louwye & Thijs Vanderbrocke

2020 - 53rd Annual Meeting
Baton Rouge, Louisiana, USA
Organizer: Sophie Warny, Kam-Biu Liu & Sibel Bargu

2021 - 54th Annual Meeting
Manizales, Colombia
Organizers: Ingrid Romero, Angelo Plata & Andres Pardo



MVP-PPMB 2018

The next meeting of the NFSR Working Group: “Micropaléontologie végétale et Palynologie” and Palynologists and Plant Micropalaeontologists of Belgium (MVP-PPMB) will be held in the Pal3 Research Unit of the Geology Department of the University of Liège, Belgium, in Fall 2018.

It will be focused on palynology and palaeobotany from the Precambrian up to the modern periods. All related aspects, such as biogeochemistry, etc., are welcome.

If you are interested in attending, please participate in the Doodle Poll to help determine a meeting date between early September and mid-November!

https://doodle.com/poll/8mi593zbgc96huk8

The poll closes at the end of June, so please voice your opinion by that time. We will announce the chosen date in early July.

The meeting is the perfect venue for students to participate and present talks, even if data are still in their infancy. As the ambiance is always convivial, it is the right place to learn how to make presentations! Of course, experienced colleagues are strongly encouraged to present their latest discoveries and newest projects.

The meeting is typically a one-day event and will begin at around 09:30 and will finish at around 18:00. The talks last 15 minutes + 5 minutes of questions. Should we have enough interest, we may expand the conference to two days. We will have a lunch at the university or close to it. For those who have time to spend in a pleasant atmosphere, we may also organize a diner after the meeting.

There will be a small fee this year - 10€ - to offset the costs of coffee breaks, dinner, etc.

We will have some funding (500€) to invite a speaker from a foreign country. If you would like to invite a colleague, let Dr. Steemans know who and he will do what is necessary to invite them.

To organize this meeting, we need to know: 1) which days are free for you (see the Doodle); 2) if you will do or not a presentation; and 3) a provisional title for your presentation.

Participants, please send me your abstract as soon as possible. It may be as long as you want, and you may include several figures, pictures and so on. Format your abstract using the style in the previous abstract book:

http://hdl.handle.net/2268/216708.

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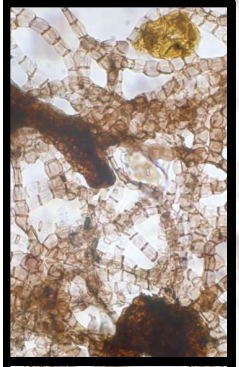
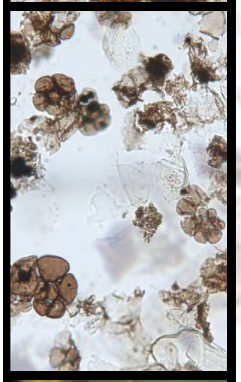
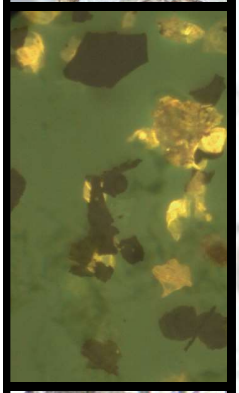
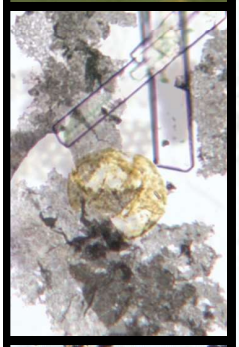
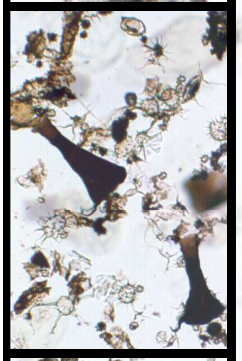
NFSR Senior Researcher
Geology, unit PAL3
University of Liège, Agora Quartier
Allée du 6 Août, 14, Bât. B-18,
B-4000 Liège 1, Belgium
Phone: Office: 00 32 4 366 53 33 - Secretariat: 00 32 4 366 53 23 - Fax 00 32 4 366 20 29
EMail: Principal: p.steemans@ulg.ac.be - Other: phil.steemans@gmail.com


CIMP sponsored

International Course on Organofacies Analysis

Sedimentary Organic Matter Principles & Applications

September 24-28, 2018
University of Erlangen

5 days of lectures and practical microscope exercises.
Participants can bring their own slides to discuss in 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

AASP-TPS will have a booth in "PaleoAlley."
Please contact the GSA Liaison, Francisca Oboh-Ikuenobe (ikuenobe@mst.edu) to volunteer your time at the booth. We especially welcome student volunteers!

Abstract Deadline: CLOSED
International Travel Grant Application Deadline: CLOSED

AASP-TPS Co-sponsored Sessions:

T110. Lakes through Space and Time
Session Chairs: Scott W. Starratt, Michelle F. Goman
Sponsors: GSA Limnogeology Division; GSA Sedimentary Geology Division; GSA Quaternary Geology and Geomorphology Division; AASP - The Palynological Society; American Quaternary Association; Association for the Sciences of Limnology and Oceanography; International Association of Limnogeology; SEPM (Society for Sedimentary Geology); GSA Continental Scientific Drilling Interdisciplinary Interest Group
Description: This session celebrates lacustrine research around the world. Lakes are important fresh water reservoirs, and their sediments serve as archives of global change, local human impact, and ecological succession.
Disciplines: Limnogeology | Paleoclimatology/Paleoceanography | Stratigraphy |

T121. Insights from Microfossils, Palynology, and Their Modern Analogs: From Traditional to Emerging Techniques
Session Chairs: Miriam E. Katz, Peter P. McLaughlin Jr., Caitlin Keating-Bitonti, Ingrid Romero, David K. Watkins
Sponsors: Cushman Foundation; AASP - The Palynological Society; Geochemical Society; Paleontological Society; Paleontological Research Institution; GSA Limnogeology Division; GSA Sedimentary Geology Division
Description: Traditional applications of microfossils/palynology are central to many studies, while novel approaches (especially geochemistry) utilizing microfossils have expanded recently. This session highlights traditional and innovative microfossil/palynology applications in terrestrial and marine environments, including modern analogs.
Discipline: Paleoclimatology/Paleoceanography | Geochemistry | Paleontology, Biogeography/Biostratigraphy

T126. Earth and Life Co-Evolution in the Early to Middle Neoproterozoic (1000 to ca. 635 Ma)
Session Chairs: Qing Tang, Heda Agic, Leigh Anne Riedman
Sponsors: GSA Geobiology & Geomicrobiology Division; AASP - The Palynological Society; Paleontological Society; Paleontological Research Institution; GSA Sedimentary Geology Division
This session is focused on gaining a better understanding of the coevolution of Earth and life in the early to middle Neoproterozoic. We welcome inputs from paleontologists, geochemists, sedimentologists, earth system modelers, and more.
Disciplines: Paleontology, Diversity, Extinction, Origination | Geochemistry | Precambrian Geology

Field Trips Incorporating Palynology:

422. Lower and Middle Pennsylvanian Coal Geology of the Illinois Basin.

Leaders: Cortland Eble and Stephen Greb, Kentucky Geological Survey

Cost: $180

When: Thursday, November 8th

Description: Typical Pennsylvanian coal-bearing facies of the Caseyville, Tradewater, and Mansfield Formations are exposed along the eastern margin of the Illinois Basin in western Kentucky and southwestern Indiana. This trip will examine (1) a lowstand to transgressive Caseyville sandstone paleovalley with a vertical transition to estuarine facies; (2) slumped coastal-estuarine facies with tidal rhythmites; (3) a variety of different coal beds in the Tradewater and Mansfield Formations, highlighting different coal facies; (4) coarsening-upward highstand regressive deposits; (5) and a variety of channel facies. Petrographic and palynological analyses of coals and shales will be shown from outcrops to illustrate how these can be used for depositional interpretation. Sedimentological and sequence stratigraphic interpretations of typical coal-bearing clastic facies will also be discussed.

AASP-TPS Co-sponsored Short Course:

505. A User's Guide to Micropaleontology and Biostratigraphy: Applications in Research and Industry.

Cost: US$65. Limit: 40. CEU: 0.8.

When: Sat., 3 Nov., 8 a.m.–5 p.m.

Instructors: Thomas Demchuk, Louisiana State University/RPS Group Inc.; Ryan Weber, PaleoData Inc.

Sponsors: AASP - The Palynological Society; SEPM (Society for Sedimentary Geology); The Cushman Foundation; Paleontological Research Institute; Chevron Corp.

Description: This short course will introduce the concepts of micropaleontology, biostratigraphy, biofacies analysis, and chronostratigraphy to those who may need to work with biostratigraphic data but may not have the background to competently work with it and utilize it to its full potential. This course is designed for students, other academics, consultants, and industry professionals to gain a full appreciation of how these topics contribute to and are integrated in stratigraphic research and petroleum exploration. The basic concepts will be developed together with the essential vocabulary necessary to understand and communicate with specialists in those fields.

Full GSA 2018 Meeting information:

http://community.geosociety.org/gsa2018/home

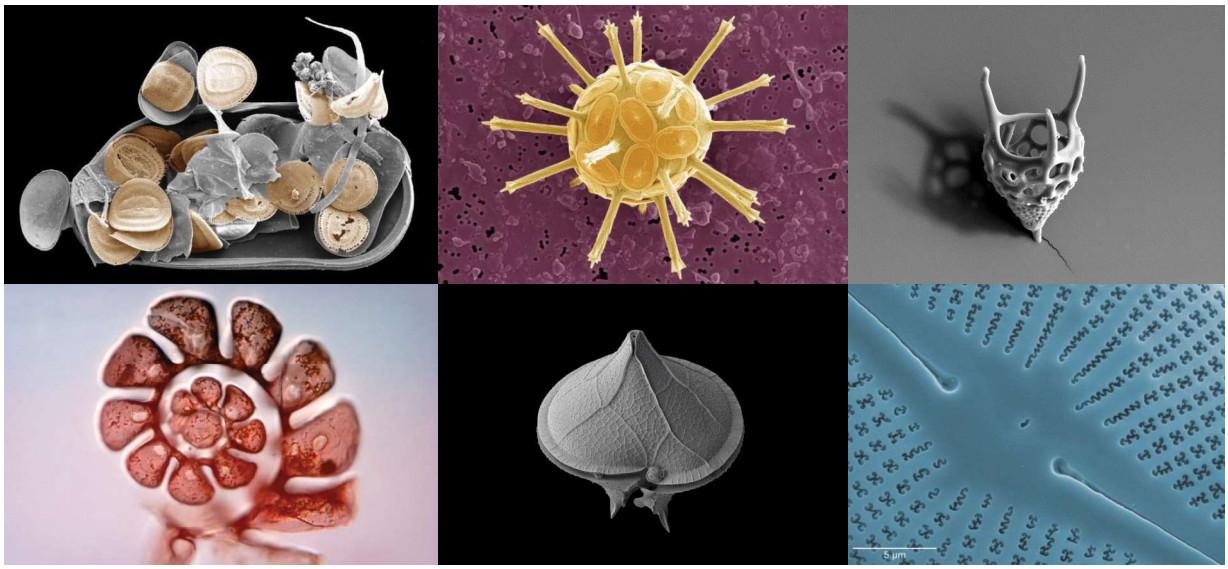
The Micropalaeontological Society

http://www.tmsoc.org

Annual Conference 2018

Wednesday 14th – Thursday 15th November 2018

Leeds Town Hall



The Micropalaeontological Society (TMSoc) are delighted to announce this year's annual conference will be hosted by the School of Earth and Environment, University of Leeds. The conference is open to all aspects of micropalaeontology, providing delegates the opportunity to give either oral or poster presentations on their research.

On the first day, the conference Symposium theme is *"Microfossil insights into greenhouse worlds"* and will be followed by the Society's Annual General Meeting (AGM), the presentation of Society Awards, a drinks reception and the day will end with the conference meal

Day 2 will be an open sessions for which we invite talks related to any area of micropalaeontology. These sessions will consist of short (c. 15 minute) talks and dedicated poster sessions. Further details regarding the conference schedule, keynote speakers and logistics will be added to the website, available at www.tmsoc.org/tmsoc2018

For further information please contact:
events@tmsoc.org

We look forward to seeing you in November!

Registered Charity No. 284013

@MicropalaeoSoc
#TMSoc2018

The Micropalaeontological Society

UNIVERSITY OF LEEDS

SECTOR ENERGÍA Y MINAS
INGEMMET
INSTITUTO GEOLÓGICO, MINERO Y METALÚRGICO

SOCIEDAD GEOLÓGICA DEL PERÚ | SGP
FUNDADA 1924

Weichselia (Planta)
Ancash
Cretácico inferior

Hoekaspis (Trilobite)
Cusco
Ordovícico medio

Clupeomorpho (pez)
Ancash
Jurásico - Cretácico

II SIMPOSIO INTERNACIONAL DE PALEONTOLOGÍA DEL PERÚ

TENDENCIAS MODERNAS DE LA PALEONTOLOGÍA APLICADAS A LA GEOLOGÍA

27 - 30 noviembre, 2018

COMITÉ ORGANIZADOR

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SESIONES TEMÁTICAS

ST1. Paleontología sistemática y evolución
ST2. Bioestratigrafía y Tiempo Geológico
ST3. Paleoclimatología y Paleogeografía
ST4. Paleontología económica de Yacimientos
ST5. Patrimonio paleontológico y Geoparques
ST6. Geoética paleontológica, Educación y Sociedad.

11TH NORTH AMERICAN PALEONTOLOGICAL CONVENTION

JUNE 23 - 27, 2019 RIVERSIDE, CALIFORNIA

Welcome to the 11th North American Paleontological Convention (NAPC), to be held at the University of California, Riverside, 23rd-27th June 2019. Celebrating 50 years of NAPC!

INFORMATION AND CALL FOR SYMPOSIUM PROPOSALS

NAPC is an international conference that brings together all branches of paleontology and fields related to the history of life: vertebrate, invertebrate, paleobotany, micropaleontology, paleo-related organic and inorganic geochemistry, paleoecology, paleoclimatology, and astrobiology.

Held every 4-5 years, the meeting attracts professional scientists, graduate and undergraduate students, amateur paleontologists, and interested members of the public. Its purpose is to exchange research findings, define future directions, and be a forum for extended and relaxed interactions between professionals and early career scientists, most particularly graduate and undergraduate students. NAPC meetings are generally less formal than annual association meetings and allow time for more extended and relaxed interactions.

The meeting comprises participant-suggested symposia and topical sessions – please consider proposing a symposium for NAPC2019! Submit your suggestion to the organizers by 30th September 2018: Symposium title, brief synopsis of symposium, names of organizers, full or half day, and any plans for invited speakers to NAPC2019@ucr.edu.

Dates: **Sunday 23rd to Thursday 27th June 2019**, with symposia running the 23rd to the 24th and the 26th to the 27th. On Tuesday 25th there will be a mid-meeting break, with a variety of scheduled workshops and field trips. Other field trips will run both pre-and post-conference.

Venue: One of the ten UC campuses, UCR is home to nearly 25,000 students and has a long history of research strength in paleontology and allied fields. The meeting will take place in the new University Hub, which contains an array of meeting rooms and spaces of various sizes that are appropriate for virtually all activities planned, ranging from plenary sessions to smaller symposia and group meetings, to exhibits and posters. In addition, most participants will be housed in UCR's new Glenmor Residence Hall; dining and recreational facilities will also be available. Other accommodation options are available nearby off campus.

Communications: Updates on workshop, field trip, and symposia proposal information available on our website: www.napc2019.ucr.edu
Email re: the meeting may be addressed to: NAPC2019@ucr.edu
Follow us on Facebook (NAPC2019); Look for us on Instagram

Field Trips: A variety of field trips will be offered in association with the meeting, with several additional multi-day trips to be announced shortly:

- Extinction events and biodiversification in the Cambro-Ordovician of the eastern Basin and Range (3-5 days)
- Barstovian Biostratigraphy: Barstow and Cajon Valley (1 day)
- Stratigraphy and Paleontology of the Palos Verdes Peninsula (1 day - mid meeting)
- LeBrea Tarpits and the Alf Museum (1 day - mid meeting)
- Low tide visit to Crystal Cove State Park, Laguna Beach, and Newport Pleistocene terrace (1 day - mid meeting)
- Late Oligocene to Late Early Miocene Molluscan and Mammalian Biostratigraphy of Sespe, Vaqueros, and Lower Topanga Formations at Calabasas and Saddle Peaks, Santa Monica Mountains National Recreation Area, Los Angeles County, California (1 day)
- Ediacaran-Cambrian of California and Nevada

Confirmed Mid-meeting Workshops:

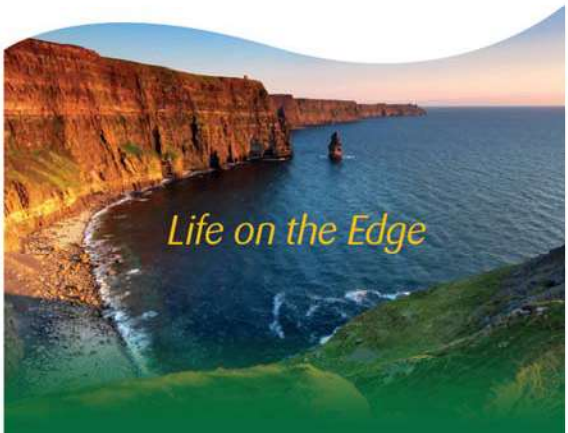
- *Numerical Biochronology: Sequencing Large Numbers of Paleobiologic First- and Last- Appearance Events:* Prof. Peter Sadler, University of California Riverside.
- *Timetree methods for beginners:* Prof. Mark Springer, University of California Riverside
- *A hands-on introduction to the Paleobiology Database:* Matt Clapham, UC Santa Cruz
- *Talk to your elected officials! A workshop on communication and public policy for paleontologists*: Sandy Carlson, UC Davis

Additional Programs: There will be spouse, family, grad student, and post-doc specific activities.

Local Museums: Southern California is rich in museums with substantial research collections in paleontology. NAPC will offer various opportunities to visit these institutions. Those wishing to visit collections for research are encouraged to contact relevant staff, understanding that opportunities may be limited by demand.

Current NAPC 2019 Sponsors: The College of Natural and Agricultural Sciences; The EDGE Institute; The Center for Ideas and Society (UCR); The Natural History Museum, Los Angeles

NAPC 2019 Organizing Committee Members: Nigel Hughes, Mary Droser, Nicole Bonuso, David Bottjer, Doug Eernise, Robert Gaines, Austin Hendy, David Jacobs, Jess Miller-Camp, Richard Norris, Kaustav Roy, Peter Sadler, Mark Springer, Xiaoming Wang, Michael Vendrasco



INQUA 2019 DUBLIN IRELAND

XX INQUA Congress 2019

25th – 31st July 2019

Dublin, Ireland

Meet in Ireland

Connect with Excellence

www.inqua2019.org

Quaternary Research in Ireland and the Irish Quaternary Association (IQUA)

Ireland's famously beautiful landscape contains a wealth of evidence for a dynamic Quaternary history. With dramatic glacial landforms, varied coastlines, extensive peatlands, innumerable lakes, and a rich archaeological heritage, the island has long fascinated Quaternary scientists. Indeed, Ireland has a history of Quaternary research dating back to the nineteenth century, including famous visits by Agassiz in 1840 and Carvill Lewis in 1885, and its diverse Quaternary archives continue to provide fruitful avenues for research.

The Royal Irish Academy (RIA) 'Committee for Quaternary Research in Ireland' was established in 1934, providing a key stimulus for the study of Ireland's Quaternary history. In the 1970s, the Irish Quaternary Association (IQUA) was founded with a view to co-ordinating and energising all aspects of Quaternary research in Ireland and passing on existing expertise through conferences and especially field excursions. Notable contributors over the lifetime of the Association include Frank Mitchell, Francis Synge, Alan Smith, Bill Watts, Marshall McCabe and Willie Warren. The INQUA Congress held in Birmingham in 1977, which included excursions to Ireland led by Watts and Synge, gave a further impetus to Quaternary studies in Ireland. Frank Mitchell, as President of INQUA for the intercongress period 1969–1973, and later through his classic book, Reading the Irish Landscape, also greatly helped in highlighting the multi-dimensional character of the Quaternary record in Ireland.

Currently, IQUA is a thriving organisation with well over 100 members, and disseminates information about its activities through its webpage (www.iqua.ie) and email list. The link between the RIA and INQUA continues to be positively fostered by active Quaternary scientists represented via the RIA's Geoscience Committee (formerly the National Committee for Geology), and by funding IQUA's national delegates to attend INQUA congresses. Furthermore, the recipient of IQUA's inaugural Frank Mitchell Award for Distinguished Service to Quaternary Research and Teaching, Pete Coxon, has served as both IQUA President (2008-2012) and as Secretary-General of INQUA (2003-2011), thus strengthening the link between IQUA and INQUA.

The following links will give you a sample of the Congress facilities and Ireland's Quaternary science community and landscape:

The Irish Quaternary Association (IQUA): **http://www.iqua.ie**

IQUA Field Excursions: **http://www.iqua.ie/publications.html**

The Convention Centre Dublin (the Congress Venue): **http://www.theccd.ie**

Wild Atlantic Way (Ireland's scenery): **http://www.wildatlanticway.com/home/**

Sign up for Congress Newsletters: **www.inqua2019.org**

FIRST CIRCULAR

19TH INTERNATIONAL CONGRESS ON THE CARBONIFEROUS AND PERMIAN (XIX ICCP 2019)

Invitation

With great pleasure we invite you to attend the 19th International Congress on the Carboniferous and Permian, to be held at the University of Cologne, Cologne, Germany, July, 29th–August, 2nd, 2019. It is our special privilege, to host the ICCP again in Central Europe, following the successful meetings in Cracow 1995 and Utrecht 2003, and forty-eight years after the meeting in Krefeld 1971, hitherto the only "Congres International du Stratigraphie et Géologie du Carbonifère" held in Germany.

The widened spectrum of the congress and major advances made in almost 50 years are a unique opportunity to demonstrate the scientific progress in Germany and adjacent countries of Central Europe, to put these into a global frame enabled by the presentations of established researchers and young scientists and students from all over the world, and to evaluate the results on various fieldtrips in classical and new localities. The Carboniferous and Permian of Central Europe display a multitude of facies, which might suit everybody's interest. In the Mississippian, facies range from carbonate platform environments in Belgium and westernmost Germany to the classical basinal Kulm successions in the Rhenish Mountains and beyond, also seen during the proposed field trip to the Moravo-Silesian Zone (Czech Republic). Pennsylvanian successions contain in part coal-bearing paralic and intramontane succession. The latter continue throughout most of the Permian ("Rotliegend"), and finally are topped by the carbonate and salt deposits of the uppermost Permian "Zechstein" sea, both constituting the classical Northwest-Central European Permian. Finally, an excellent glimpse of the Northwestern margin of the Palaeotethys will be provided by a field trip to the Carnic Alps and Karavanke in the border triangle of Austria, Italy and Slovenia. New data concern stage and substage boundaries, among those on the Devonian-Carboniferous, Viséan-Serpukhovian, and Permian-Triassic boundaries, sequence stratigraphic interpretations, refined biostratigraphic data and non-marine–marine correlations, refined facies interpretations, and spectacular Pennsylvanian-Permian fossils sites. Last but not least, the future economic potential of Carboniferous deposits after ending of coal mining in Germany and adjacent countries is of major interest and new models for the tectonic assemblage of the Variscides "in the heart of Pangaea" emerged in recent years.

We would appreciate to welcome all of you in Cologne. Do not miss this unique forum on the Carboniferous and Permian, meet old and new friends to discuss latest results, and contribute to cutting-edge research of our favourite time slice. We will do our best to organize a splendid meeting!

General sponsors

German Stratigraphic Commission
German Subcommission on Carboniferous Stratigraphy
German Subcommission on Permian and Triassic Stratigraphy
The International Subcommission on Carboniferous Stratigraphy
The International Subcommission on Permian Stratigraphy

Scientific committee and areas of specialization

Michael Amler (Köln), Carboniferous marine invertebrates.
Markus Aretz (Toulouse), Carboniferous and Permian carbonate environments and reefs.
Ondřej Bábek (Olomouc), Co-leader of proposed field trip to the Mississippian of Moravia; multiproxy stratigraphy, sequence stratigraphy and climate-eustacy interactions in the Carbonifeous
Julien Denayer (Liège), Leader of proposed field trip to the Mississippian of Belgium; Carboniferous stratigraphy and marine macrobiota.
Holger Forke (Berlin), Leader of proposed field trip to the Pennsylvanian and Permian of the Carnic Alps and Karavanke Mts.; Pennsylvanian and Permian fusulines, stratigraphy and regional geology.
Annette Götz (Portsmouth), Permo-Carboniferous of Gondwana and its conventional and unconventional energy resources.
Hans-Georg Herbig (Köln), Carboniferous stratigraphy and facies; Congress Chair.
Jiří Kalvoda (Brno), Co-leader of proposed field trip to the Mississippian of Moravia; Carboniferous stratigraphy and marine microbiota.
Hans Kerp (Münster), Permo-Carboniferous palaeobotany.
Tomas Kumpan (Brno), Leader of proposed field trip to the Mississippian of Moravia; multiproxy stratigraphy of Devonian and Carboniferous carbonate successions
Svetlana Nikolaeva (Moscow-London), Vice-chair of the International Subcommission on Carboniferous Stratigraphy; Carboniferous stratigraphy and marine macrobiota.
Matevž Novak (Ljubljana), Leader of proposed field trip to the Pennsylvanian and Permian of the Carnic Alps/Karavanke Mts.; Pennsylvanian and Permian palaeontology, stratigraphy and regional geology.
Edouard Poty (Liège), Co-leader of proposed field trip to the Mississippian of Belgium; Carboniferous marine invertebrates, biostratigraphy and sequence stratigraphy.
Ausonio Ronchi (Pavia), Non-marine Permian basins in Europe, their stratigraphy and biota.
Martin Salamon (Krefeld), Conventional and unconventional Permo-Carboniferous energy resources in Europe.
Jörg Schneider (Freiberg), Vice-chair of the International Subcommission on Permian Stratigraphy; Co-leader of the proposed field trip to the classical Northwest-European Permian in central Germany; Permian marine – non-marine correlations.
Shuzong Shen (Nanjing), Chair of the International Subcommission on Permian Stratigraphy; Permian stratigraphy.
Vladimir Silantiev (Kazan), Chair of the 18th International Congress on the Carboniferous and Permian; non-marine Permian stratigraphy and biota.

Lucas F. Spencer (Albuquerque), Permo-Carboniferous vertebrate palaeontology and marine – non-marine correlations.
Sebastian Voigt (Thallichtenberg), Leader of the proposed field trip to the Pennsylvanian-Permian non-marine Saar-Nahe Basin, SW Germany; Carboniferous–Triassic non marine biota, palaeoichnology and palaeoenvironments
Xiangdong Wang (Nanjing), Chair of the International Subcommission on Carboniferous Stratigraphy; Carboniferous stratigraphy.
Volker Wrede (Krefeld): Leader of the proposed field trip to the Pennsylvanian paralic foreland basin of the Ruhr area; regional and structural geology, coals.
Silvio Zeibig (Kassel), Co-leader of the proposed field trip to the classical Northwest-European Permian in central Germany; Zechstein deposits of central Europe and salt mining.

Organization committee

Hans-Georg Herbig, Michael Amler, Sarah Esteban-Lopez, Sven Hartenfels, Hannah Czieszinski, Eliza Stehr (all University of Cologne), Markus Aretz (Unversité de Toulouse).

Venue

Cologne, the fourth biggest German city, is a vibrant metropolis with somewhat more than one million inhabitants in the western part of Germany. Based on an older local settlement, it was founded by the Romans and is thought to be the oldest city of Germany. During centuries people from many countries met in its open-minded atmosphere. Its flair is due to the unique location at River Rhine, the mixture of modern and historical buildings – the famous cathedral is included in the UNESCO world heritage list, and the many students visiting several universities. The University of Cologne, which will host the 19th ICCP has almost 50,000 students in six faculties covering the complete spectrum of natural and cultural sciences. Cologne is an ideal base to visit classical Carboniferous localities in the near-by Belgian Ardennes, the German Rhenish Mountains and the Ruhr area. Permian outcrops are somewhat more distant, but easily reached via a dense net of highways. Do not forget additional touristic highlights, including four UNESCO world heritages: scenic “Upper Middle Rhine Valley”, “Germanic-Rhaetic Limes”, the originally 550 km long boundary fortification of the Romans, as well as the rococo castles “Augustusburg” and “Falkenlust”, both only some kilometres south of Cologne.

Congress schedule

Pre-Congress field trips
July 28: Arrival in Cologne, Registration and welcome reception
July 29-August 2: Talks, poster-sessions, workshops
July 31: Mid-Congress Field trip
August 1: Congress Dinner (River Rhine Cruise)
August 3: Departure
Post-Congress field trips

Travel

Cologne is reached by a dense network of highways and high-speed trains. By air, it is reached via the airport Cologne-Bonn CGN (12,000,000 passengers/year, 130 destinations, also by low-cost carriers). Participants from overseas may find good travel deals to the airports of Düsseldorf DUS, Frankfurt/Main FRA, or even to Brussels BRU (Belgium) and Amsterdam AMS (The Netherlands). All airports are directly connected by high-speed trains with Cologne:
Düsseldorf (40 km, 25 min)
Frankfurt (180 km, 1 h)
Brussels (230 km, 2 h)
Amsterdam (280 km, 3h)

Please check to see if your visit in Germany will require a visa. On request, we will provide official invitation letters to delegates who need to apply for a visa.

Scientific programme

Talks and posters: The congress will take place in the central lecture hall of the University of Cologne. This will enable easy changeover between parallel sessions of talks. Time for oral presentation is limited to 20 minutes, including questions and discussion. The posters will be also displayed in the central lecture hall and be accessible during the entire duration of the congress.
We plan to limit speakers to one presentation, but individuals may participate as non-presenting co-author in additional talks. The number of poster presentations per person is not limited. Poster format will be portrait layout DIN A 0 (width 841 mm, height 1189 mm). Details will follow in the second circular.

Proposed Sessions: Herein, we propose a framework of sessions/topics. However, we encourage the scientific community to propose additional sessions or more specialized 'subsessions' to the organization committee **until November, 15th 2018**. Proposals should be accompanied by an outline of the session topic, maximum 150 words long. Final acceptance will be based on the potential to attract a wide audience and to stimulate further research. Additional session titles will be published in the second circular.

A. The world of stratigraphy

A1. Carboniferous stage boundaries, stratotype sections, and GSSPs
A2. Permian stage boundaries, stratotype sections, and GSSPs
A3. Carboniferous and Permian multistratigraphy and correlations (including isotope stratigraphy, magnetostratigraphy, sequence stratigraphy, and cyclostratigraphy)
A4. Revision of the Devonian-Carboniferous boundary and associated events and extinctions
A5. End-Permian extinction and early Triassic recovery
A6. Late Carboniferous to earliest Triassic non-marine – marine correlation

B. The world of palaeontology

B1. Carboniferous and Permian marine biota: taxonomy, palaeoecology, palaeogeography
B2. Carboniferous and Permian non-marine biota and plants: taxonomy, palaeoecology, palaeogeography

C. The world of facies, environments and basin analysis

C1. Carboniferous and Permian reefs, mounds, and biostromes
C2. Carboniferous and Permian carbonate platforms and basins from cold-water to the tropics
C3. Permian evaporite basins
C4. Carboniferous and Permian siliciclastics and shales
C5. Non-marine basins and environments of the Variscides and beyond
C6. Permo-Carboniferous basins and environments from Gondwana
C7. The Permo-Carboniferous glaciations - record and impact

D. The world of oceans and mountains

D1. Carboniferous and Permian plate tectonics and the evolution of relief (building and deconstruction of mountains)
D2. Carboniferous and Permian palaeooceanography

E. The world of economic geology

E1. Carboniferous and Permian coals and evaporites
E2. Carboniferous and Permian conventional and unconventional hydrocarbon systems
E3. Carboniferous and Permian geothermal resources

Abstracts: Abstracts are due April, 15, 2019. A request for abstracts will be announced in the second circular, including instructions for the authors. Abstracts are limited to one page, format DIN A4. The fully citable abstracts will be published in *Kölner Forum für Geologie und Paläontologie*. The volume will be distributed to the registered delegates.

Proceedings: Congress proceedings will be published, but at the time being no final decision on the format has been made. However, we prefer a publication in the "Compte Rendue" style of earlier congresses, as in our opinion dispersion in several journals minimizes the importance and impact of the congress.

Workshops: Free workshops will be available for any colleagues or working groups on demand. Please contact us not later than April, 15th, 2019 with workshop titles, duration and expected number of participants. Rooms will be available for the business meetings of the Subcommissions on Carboniferous and Permian stratigraphy.

Proposed field trips

Field trip participation will be on a first-come first-served base. Independently to modifications/restrictions by the fieldtrip leaders a maximum of 30 persons per field trip is expected. Duration, excursion routes, and costs will be detailed in the Second Circular. Pre-congress and post-

congress field trip themes supplement each other to enable maximum coverage for participants interested in two field trips. Field trips will not require extensive walking or walking in rugged landscape except for some stops in post-Congress field trip C3.

A. Pre-Congress field trips

A1. The Mississippian carbonate platform of the Ardennes, Belgium – fauna, facies, and stratigraphy.

A2. The Mississippian Kulm Basin of the Moravo-Silesian Zone, southern Czech Republic – counterpart of the German Rhenish Mountains.

A3. The classical Northwest-Central European Permian: continental "Rotliegend", restricted marine to evaporitic deposits of "Zechstein", and the Permian-Triassic transition in central Germany.

A4. The Pennsylvanian of the Ruhr area, western Germany – fauna, facies, and stratigraphy of a paralic foreland basin of the Variscides including coal formation.

B. Mid-Congress field trips: to be announced in the Second Circular.

C. Post-Congress field trips

C1. The Mississippian Kulm Basin of the Rhenish Mountains, western Germany – fauna, facies, and stratigraphy of a mixed carbonate-siliciclastic foreland basin.

C2. The Pennsylvanian–Permian of the Saar-Nahe Basin, southwestern Germany – fauna, facies, and stratigraphy of an intramontane continental molasse basin of the Variscides.

C3. The Pennsylvanian–Permian of the Southern Alps (Carnic Alps/Karavanke Mts.), Austria/Italy/Slovenia – fauna, facies and stratigraphy of a mixed carbonate-siliciclastic shallow marine platform along the northwestern Palaeotethys margin.

General information

Guest programme: No formal guest programme is planned at this time. All places of interest can be reached by foot or public transport. For information see the official website https://www.cologne-tourism.com/. Feel free to request further information from the organizers.

Accomodation: A large variety of hotels is available in Cologne. Prices during summertime are reasonable, as no trade fares or other big events will take place. We will suggest some which are in walking distance (max. about 30 minutes) to the congress location on the website. Student dormitories are not available, but low cost hostels and youth hostels might be booked.

Weather conditions: Due to its position relatively close to the Atlantic and the North Sea, Cologne has a mild, maritime influenced climate. Average maximum temperatures in July and August are 24°C during the day, minimum temperatures 12–13°C at night. Rain cannot be excluded and even some hot days with temperatures up to 30°C.

Type of clothing: A light rain coat and a sweater should be obligatory. For field trips bring also sturdy boots and, if possible, a hammer.

Registration

Electronic registration will be available on the Congress website http://iccp2019.uni-koeln.de/ after December, 1, 2018. It is our wish to organize a meeting at reasonable prices to enable participation of a wide audience. The fees, however, still might be subject to minor changes due to pending funding.

Registration fees:

	Before March 15, 2019 (Early Bird)	**March 15–May 30, 2019 (Late registration interval)**
Regular participant	280 €; includes congress fee, printed abstract volume, printed volume of all field trips, additional USB stick with electronic versions of both volumes. Icebreaker party and refreshments during the sessions	330 €; includes congress fee, printed abstract volume, printed volume of all field trips, additional USB stick with electronic versions of both volumes. Icebreaker party and refreshments during the sessions
Student	190 €; as above, applies only with valid student ID card	240 €; as above, applies only with valid student ID card
Accompanying person	80 €; icebreaker party and refreshments during the sessions	100 €; icebreaker party and refreshments during the sessions

Important dates

August, 15th, 2018: First Circular; call for sessions
November, 15th, 2018: Deadline for proposal of sessions
December, 1st, 2018: Second Circular, opening of online registration
April, 15th, 2019: Deadline for Early Bird payment, abstract submission; announcement of workshops
May, 30th, 2019: Third Circular, end of late registration interval

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