

# European Palaeobotany and Palynology Conference 2026



**Sonntag, 20. September 2026 - Freitag, 25. September 2026**

## Symposia

## **Prize symposium for early career scientists from the entire field of palaeobotany and palynology**

*Anne-Laure Decombeix, Carla J. Harper, Michael Krings*

In recent years, palaeobotanical and palynological research has made enormous progress in many areas. Early career scientists are often at the forefront of this progress. In their working groups, they use innovative, sometimes bold ideas and new methodological approaches, as well as contacts to neighbouring sciences, to gain new insights and raise new questions. This greatly enriches our understanding of ancient plants and the ecosystems in which they lived. This symposium serves to bring together such ideas and approaches and to offer our early career colleagues a special forum to present their research. The symposium is aimed at scientists from the entire field of palaeobotany and palynology, who do not yet have a PhD or whose PhD degree was awarded less than two years ago.

In honour of his mentor and friend Thomas N. Taylor (1937–2016), whose passing will be commemorated for the tenth time in 2026, Prof. Michael Krings has endowed the symposium with a cash prize of 1,800 euros. All presentations will therefore be reviewed by a panel, and the prize money will be split among three winners.

## **CIMP Palaeozoic palynology**

*Duncan McLean, Marco Vecoli, Charles Wellman*

The Commission Internationale de Microflore du Paléozoïque (CIMP) symposium is dedicated to studies of Palaeozoic marine and terrestrial microfloras that shed new light on the evolution of Palaeozoic microfloras, their role in ancient systems, and their significance for understanding palaeoenvironmental and palaeoclimatic events. The meeting will have particular focus on: advances in analytical and methodological techniques; conceptual perspectives on the interpretation of Palaeozoic palynofloras; and integration of palynology with biostratigraphy, palaeontology, sedimentology and palaeoecology.

## **Plants in extremis: Palaeobotanical and palynological signatures of Earth's extreme environments and events**

*Chris Mays, Bas van de Schootbrugge, Jennifer McElwain*

As plants and other photosynthetic organisms have constituted the vast majority of biomass for most of the Phanerozoic, their fossils are uniquely suited for interpreting the environmental changes of the past. We invite contributions on the fossil records (micro-, macro- and chemical fossils) from extreme environments and times of extreme, global environmental changes. The symposium emphasizes: quantitative, multi-proxy approaches; the causes and consequences of extreme environmental changes; and/or and adaptations of plants to these changes. This symposium will

demonstrate the utility of fossil primary producers in shaping our understanding of extinction and survival in Earth's these pivotal and complex events.

## **From gymnosperms to angiosperms – The Cretaceous floral transition**

*Julia Gravendyck, Vera Korasidis, Jiří Kvaček*

The origin, early diversification and ecological expansion of angiosperms is recorded through the Cretaceous. The palaeobotanical and palynological evidence for this transition from a gymnosperm-dominated ecosystems to an angiosperm-dominated one are explored in this symposium. What events paved the way? And how did vegetation change around the world during the Cretaceous. We invite studies that focus on micro-, meso- and macrofossil evidence of gymnosperms and angiosperms through the Cretaceous. Especially welcome are topics that include methodological innovations or combine different disciplines such as plant-insect interactions or the synthesis of palaeobotany with other palaeoenvironmental proxies to reconstruct plant evolution and change. We also invite studies that illustrate the wide range of gymnosperms with angiosperm-like traits and convergences. We invite talks covering the Cretaceous period and will present them chronologically.

## **Probing biomolecules in plants and palynomorphs via vibrational spectroscopy: Methodological advancements and applications**

*Haidra Saleh, Piotr Meyvisch, Andrea Schito, Phillip Jardine*

This session focuses on applying vibrational spectroscopy (infrared and Raman) to analyze the macromolecular composition of extant and fossil plants and palynomorphs, both in situ and ex situ. We invite contributions on methodological advances, chemotaxonomy, paleoclimate reconstruction, thermal maturity, and molecular taphonomy. Comparative studies linking modern and fossil materials with robust reference datasets are especially encouraged. While the emphasis is on vibrational spectroscopy, we also welcome work integrating complementary techniques (such as GC-MS) to strengthen spectral interpretations and advance our understanding of plant evolution, environmental response, and fossil preservation.

## **Floras under extreme conditions in deep-time**

*Iván R. Barreiro, Evelyn Kustatscher, Amalia Spina, Borja Cascales-Miñana, José B. Diez, Emanuele Ruiu*

Environmental stress associated with extreme climate conditions has long been considered as a biotic filter that drives evolution. During the past, a series of well-documented climatic changes (humid/arid episodes, glaciations), high-magnitude disturbances (e.g., volcanism, asteroid impacts), and extreme habitats (e.g., hot springs and polar regions) have shaped vegetation. This symposium aims to examine how terrestrial communities responded to such extreme conditions. In addition, adaptation strategies of single plants or plant groups are welcome. Exploring these responses will

help us understand key processes of resilience and adaptability through time.

## **The Rhynie Chert: Windows into early life on land**

*Christine Strullu-Derrien, Sandy Hetherington, Paul Kenrick*

The 400-million-year-old Rhynie chert deposits in Scotland are among the most iconic fossil sites in palaeobotany. Episodic inundation by hot-spring fluids led to silicification of fauna and flora, preserving organisms and their associations in remarkable detail. Alongside early land plants, the site captures a diverse community of arthropods, cyanobacteria, algae, Amoebozoa, oomycetes, and multiple fungal lineages. Together, these fossils provide unparalleled insights into the early evolution of plants and the assembly of terrestrial ecosystems. For more than 40 years, Münster has been a hub of Rhynie research, contributing major discoveries, including novel life-cycle variants in early plants. Elsewhere over the past decade, breakthroughs in imaging (e.g., confocal laser scanning microscopy), specimen preparation (e.g., digital fossil mining), and non-invasive geochemical analysis (e.g., Raman and FTIR spectroscopy) have greatly expanded our knowledge, especially of the microbiota and 3D structure of the plants. These approaches are opening new perspectives on organismal diversity and their complex interactions that shaped early terrestrial life. This symposium will present an integrated overview of current Rhynie chert research, with a focus on plants and microbial communities. Our program includes leading experts, mid-career scholars, and early-stage researchers. We particularly encourage contributions from early career scientists to promote fresh perspectives and support the next generation of Rhynie research.

## **Innovative approaches and cutting-edge techniques answer urgent questions in palaeobotany**

*Carole T. Gee, Brianne Palmer*

The application of new methods has consistently proven to be a significant driving force in the greater understanding of fossil plants. Whether it is a shift from thin sections to cellulose acetate peels, or from light microscopy to scanning electron microscopy, new techniques have transformed how we do our research. In today's flourishing digital and molecular age, the innovative use of microCT, synchrotron imaging, TEM, genomic sequencing, biomarker geochemistry, phylogenetic methods, computational modelling, and machine learning has been added to our toolbox and offers new possibilities for deeper insight. This symposium welcomes contributions that highlight the application of new approaches and techniques to palaeobotany and will thus showcase a wide array of novel perspectives for cutting-edge research on fossil plants. We also welcome the use of traditional methods applied in new ways to answer long-standing questions.

## **Embracing plant taphonomy: Biostratinomy, diagenesis and actuopalaeobotany**

*Carole T. Gee, Lutz Kunzmann*

Understanding the taphonomic processes acting on plants is integral to paleobotanical and

palynological studies. Biostratinomy is the study of all the physical, chemical, and biological filters that affect plants and plant parts, from the moment of death and abscission, through transport and deposition, to decay and early chemical changes. Fossil diagenesis, on the other hand, traces the geochemical and physical changes of the plant remains in the sediment that led to fossilization. Actupalaeobotany approaches the topic from the opposite direction by observing taphonomic processes on extant plants, plant parts, and extant assemblages, as modern analogues. This symposium welcomes all studies on plant taphonomy. In addition to the accurate identification of plants in a fossil assemblage, the elucidation of taphonomic processes leading to the origin of the fossiliferous deposit is prerequisite for reliable plant-based palaeoecological, paleoenvironmental, and paleoclimatic reconstructions.

## **A cell's tale: Fossil wood as key to deep-time floras and worlds**

*Steffen Trümper, Jakub Sakala*

The evolution of wood in the Devonian as a conducting and stabilizing tissue has paved the way for plants to become the skyscrapers of Nature. This evolutionary advance propelled plant evolution, re-shaped continental sedimentary dynamics and impacted geochemical cycles up to the global scale. Moreover, wood is among the most taphonomically resistant plant tissues, which is why its fossils often remain the most common or even the only evidence of vegetation in the geological record. This symposium is open to any contribution that deals with the anatomy, functioning and taphonomy of mineralised woody plants and their use to understand evolutionary, ecological and geological processes in the depths of time. Therewith, this symposium follows the tradition of International Association of Wood Anatomists (IAWA) meetings held during the EPPC. Early career researchers are particularly encouraged to promote their science on this occasion.

## **Whole-plant-taxa and whole-plant reconstruction**

*Christian Pott*

Assembling of fossil plants is limited due to the plants' nature of shedding their different organs such as leaves, fruits, seed cones, flowers, etc., for different reasons such as fruit maturation, seed dispersal, frost protection, ageing, consumption. In consequence, these different plant parts are commonly found isolated. In rare cases, entire plant portions yielding different parts in organic connection are discovered, which then add to the restoration of closely related plants. While some scholars used the indication of different parts being preserved on the same slabs or bedding planes as evidence of potential association of these plant parts, in the last decades, the value and applicability of fossil plant cuticles has repeatedly provided good evidence for assembling whole-plant taxa from various organs such as foliage, axes, reproductive units. Such plants can serve as entire natural units and might need special nomenclatural consideration compared to the earlier promoted concept of form-classification of fossil plant organs, nowadays reflected in the term 'fossil-taxon' as deployed by the International Code of Nomenclature for algae, fungi, and plants. The symposium addresses all kinds and methods, as well as the theoretical background, of achieving whole-plant taxon circumscriptions and whole-plant reconstructions, as well as ecological interpretations, or illustrations and display models, adapted from the scientific results.

## Plant biodiversity dynamics through space and time

*Phillip Jardine*

Plant biodiversity has varied enormously through geological time, underpinned by speciation, extinction and dispersal dynamics. The aim of this symposium is to bring together presentations on all aspects of spatial and temporal biodiversity change, from specimen-based analyses through to large-scale studies derived from literature compilations, and phylogenetic analyses of diversification involving fossils. Possible topics include biodiversity dynamics in response to climatic changes and mass extinctions, latitudinal biodiversity gradients, clade and biome biogeography, and comparisons across different biodiversity components (i.e. taxonomic, functional, phylogenetic and morphological diversity).

## Plant Paleoart: Perspectives and promises

*Julianne Kiely, Mario Coiro*

Even though plants are fundamental for ecosystems and society, audiences, policymakers, and other scientists are more likely to recognize and appreciate animals compared to plants. This disparity, termed plant awareness disparity, has been attributed to reduced funding for plant-related projects compared to animal-focused research, as well as a global decrease in plant-centered education, conservation, and recognition.

Art is an important tool for scientists to engage with both scientific and general audiences. Paleontological art—or paleoart— has been used to reconstruct extinct organisms and environments for almost 200 years and has influenced many of our assumptions about the past, but has tended to focus on animals, with plants seen as a backdrop or scene-setting, rather than as “central characters”. In this symposium we will discuss how plants have been depicted in paleoreconstructions over time, we will consider the challenges facing plant paleoart, the many intersections between paleobotany and artistic expression, and present promising trends for the future.