Progress of palaeobotanical research in 2006 and 2007

In 2006 Europe was host to several international meetings focusing on palaeobotany and palynology. One of these major meetings was the 7th European Palaeobotany-Palynology Conference, 6–12th September, 2006 in Prague. Around 300 palaeobotanists and palynologists from more than 40 countries including several in Europe, Argentina, China, Egypt, India, Japan, and USA participated in this meeting. The conference program was divided into five parallel sections – Palaeozoic, Mesozoic, Tertiary, Quaternary, and Special topics. Besides oral presentations almost 150 posters were presented and several meetings of special groups were included into the program, namely those of the Neogene Climate Evolution in Eurasia (NECLIME) project, the International Association of Wood Anatomists (IAWA) group and IGCP project No. 469: Variscan Terrestrial Biotas and Palaeoenvironments. The Czech National Museum issued especially for the occasion of the 7th EPPC a facsimile on DVD of the monograph by Kaspar Maria Sternberg (1820–1838), *Versuch einer Darstellung der Flora der Vorwelt*, and organized a workshop devoted to the history of palaeobotany.

The results of the conference were issued in an abbreviated form as an abstract book of the 7th EPPC issued by the National Museum in Prague (Teodoridis *et al*. 2006). In order to disseminate information in more detail the organisers invited participants to submit extended manuscripts on subjects of the lectures. The present volume of our Bulletin includes the first part of contributions with the intention to continue this series later.

The papers that have been selected and prepared for this special issue of the *Bulletin of Geosciences* concern mainly the Cenozoic although three contributions on Mesozoic and Palaeozoic plants are also included. Most of them deal with the taxonomic problems together with palaeoecological and palaeoclimatological interpretations and phytostratigraphy. Some address nomenclature, vegetation, growth forms and similar aspects of fossil plant studies.

The first three contributions are focused on palaeoxylotomy and underline the fact that the IAWA was present for the first time during its 75 years of existence at a palaeobotanical conference contributing to a special fossil wood symposium. Savidge (2007) in his first contribution discusses taxonomy and nomenclature of the genus *Araucarioxylon* relative to the famous Triassic Petrified Forest from Arizona, USA. Original material is reviewed, described and illustrated and several new genera and species are described. The second contribution by Wheeler & Manchester (2007) gives an overview of the wood anatomy of extant Ulmaceae with attention to newly recognized woods from the Upper Eocene of Oregon, USA. A detailed summary is presented for the representatives of *Ulmus* both extant and fossil. This study provides a useful context for further studies of fossil woods of this family. The last wood anatomy paper by Pons & De Franceschi (2007) describes angiosperm woods from the Middle Miocene to Pliocene of the Western Amazon Basin, Peru. All woods belong to modern genera and the association can generally be compared with the modern lowland rainforest.

Two papers concern Palaeozoic plants. Rich assemblages of palynomorphs from the Silurian and Lower Devonian of the British Isles have been analysed in terms of their diversity, evolution of early land plants and parent plant habitats (Richardson 2007). A contribution to the Carboniferous of Canada reports on an unusually large vegetative remains of *Sphenophyllum costae* from the Middle Pennsylvanian of the Nova Scotia coal field. The fossil has been recovered and described in detail by Bashforth & Zodrow (2007) and serves for the partial reconstruction of the growth habit of this *Sphenophyllum* plant and a better understanding of its palaeoecology.

The next group of papers deals with the Cenozoic of the Bohemian Massif. Kvaček & Teodoridis (2007) review all macrofloras, updating their correlation with the Boreal and Central European phytostratigraphy and providing lists of all so far described taxa. Two purely taxonomic studies contribute to the knowledge of *Potamogeton* from the Miocene of the North Bohemian Basin (Teodoridis 2007) and Centric Bacillariophyceae from the Oligocene of the České středohoří Mountains (Houk 2007), starting thus a series of revisions that are badly needed for both carpological and diatom material in our country. A new mastixioid flora has been announced from the South Bohemian basins, which is connected with tektite-bearing deposits and indicates a correlation with the Middle Miocene of Wieliczka (Ševčík *et al.* 2007).

Because of the limited extent of individual issues of the *Bulletin*, we have not been able to cover more subjects. We know that some more accounts focused on various palaeobotanical and palynological topics are being prepared for the future and hope that the present issue will open our journal for more contributions to fossil plant science.

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Guest editors

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