

On the International Geoscience Program (IGCP) Project 575 – Pennsylvanian Terrestrial Habitats and Biotas of Southeastern Euramerica



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EDITORIAL

Dear readers,

This issue 65/3 of *Geologia Croatica* is largely dedicated to the International Geosciences Program (IGCP) Project 575 (2010–2015): “*Pennsylvanian terrestrial habitats and biotas in southeastern Europe and northern Asia Minor and their relation to tectonics and climate*”. Therefore, besides the usual editor, *Geologia Croatica* also has guest-editors Prof. Jasenka Sremac and Dr. Christopher J. Cleal. They have been appointed guest editors for this volume since Prof. Jasenka Sremac from the University of Zagreb, Croatia was the scientific organiser of the Second annual meeting of Project 575, and Dr. Christopher J. Cleal from the National Museum Wales in Cardiff, UK, is the overall coordinator of the Project.

IGCP 575 is the successor to an earlier project, IGCP 469: “*Variscan terrestrial biotas and palaeoenvironments*”, which looked at changing biotas and palaeoenvironments during Moscovian times, mainly focussing on western and central Europe and the Canadian Maritime provinces (CLEAL et al., 2010, 2011). This suggested that a major change in biotas took place during Moscovian times at the same time as there was a drying of the climate, as well as changes to the landscape and drainage patterns linked to Variscan tectonic activity. The evidence suggested that there was a feedback process whereby changing vegetation, initially

caused by enhanced substrate drainage, caused localised changes to the climate, which then caused further change to the vegetation, ultimately resulting in the loss of the wetland (coal swamp) vegetation from much of Europe (CLEAL & THOMAS, 1999, 2005; HILTON & CLEAL, 2007).

The results of IGCP 469 indicated that the new biotas adapted to somewhat drier conditions first appeared in the southeast of the study area and then progressively spread westwards. In order to determine how and why this process started, we therefore needed to look further to the south and east, in particular to the area between Italy, through the Balkan Peninsula and northern Turkey, and up into the Donets Basin in Ukraine. This is the remit of IGCP 575. Our aim is to integrate the palaeontological and stratigraphical/sedimentological data from these areas to see what light they throw on this important time in Earth history, when we are for the first time getting clear evidence of the interaction between climate and vegetation, not to mention the production of some of Europe’s most important energy resources – coal. More on the project can be found on the web site (<http://igcp575.org/index.htm>).

The second annual meeting of Project 575 was held in Zagreb, Croatia on the 6th and 7th of September 2011, supported by the Department of Geology, Faculty of Science, University of Zagreb, technically organized by the research team of Project 119-1951293-1162 “Evidence of biotic and abiotic changes in fossil environments” of the Croatian Ministry of Science, Education and Sports. A group of twenty scientists from various European countries (UK, Netherlands, Germany, Czech Republic, Italy, Romania, Bulgaria, Turkey, Slovenia and Croatia) participated at the meeting.

Eleven papers originated from presentations at the Meeting. All contributions have passed the regular reviewing procedure, since this is a regular volume of *Geologia Croatica* although it is predominantly devoted to Pennsylvanian ter-

restrial biotas. The IGCP 575 papers cover a wide range of themes relating to the project. A review of Pennsylvanian terrestrial deposits SREMAC is of direct relevance to Croatia. There are also general reviews of the Pennsylvanian palaeobotany of Turkey (CLEAL & VAN WAVEREN), Italy (RONCHI et al.) and Slovenia (KOLAR-JURKOVŠEK & JURKOVŠEK), and a description of a particular flora from Romania (POPA & CLEAL); and more detailed treatments of individual taxonomic groups: ŠIMŮNEK & THOMAS describe a new *Selaginella* species, TENCHOV discusses aspects of the ecology of pteridosperm groups, and ZODROW & MASTALERZ use a new approach to identify arborescent lycospids. Although palaeobotany is inevitably heavily represented, there are also papers covering the palynology of Turkey (STOLLE), and insect trace fossils from Croatia JARZEMBOWSKI).

After "IGCP 575" papers there are four other interesting contributions spanning biostratigraphy to petrology issues. FARIS et al. present nannofossil biostratigraphy of Cretaceous to Eocene rocks in Oman Mountains, whereas BANAK et al. discuss Late Pleistocene climate history of north-eastern Croatia. STRMIĆ PALINKAŠ et al. analysed fluid inclusions and mineralogy of epidote bearing pegmatite, and

SLOVENEK & LUGOVIĆ present petrology and geochemistry of basalts from Mt. Medvednica (Croatia) ophiolite mélangé.

Enjoy the reading.

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