

The 5th Symposium on Mesozoic and Cenozoic Decapod Crustaceans, Kraków/Poland, 24-27 June 2013; a brief report

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To date, approximately 15,000 species of decapod crustacean have been recognised. The fossil record of the group includes Mesozoic and Cenozoic marine, freshwater and terrestrial settings and subgroups comprise crayfish, shrimp, lobsters and crabs. Marine environments were replete with this type of arthropod during the Jurassic, when true crabs (Brachyura) originated (Middle Jurassic) and subsequently flourished (Late Jurassic); at the same time, hermit crabs and squat lobsters (Anomura) radiated and lobsters and shrimp diversified. Despite the fact that our present knowledge of extinct decapod crustaceans is based on over 3,000 species, their comparatively low fossilisation potential, in part, explains the rather patchy fossil record of these animals. A plethora of papers published during the last decade have rapidly changed this. Across the globe, some 40 to 50 palaeontologists are actively working on this topic, trying to document their origin, phylogenetic relationships and palaeoenvironmental and palaeobiogeographical distribution through time. Starting in 2000, every three years, an international symposium on Mesozoic and Cenozoic decapod crustaceans has been organised. The first of these was held at Montecchio Maggiore (Vicenza, northern Italy), the second at Boxtel and Maastricht (the Netherlands, 2003), the third at Milano (northern Italy, 2007), the fourth at Eichstätt (southern Germany, 2010) and the fifth at Kraków (southern Poland, 2013), from 24 to 27 June. The city of Kraków ranks amongst the most picturesque old towns in southern Poland, replete with historical monuments, museums and galleries; several centuries ago, it was the capital of Poland. The main institutional organiser of the Kraków meeting was the Polish Geological Institute – National Research Institute; all presentations (oral and poster) were staged at the AGH University of Science and Technology (Fig. 1). The twenty-nine registered participants (Fig. 2) even included a baby boy, the youngest son of Martina Kočová Veselská and Tomáš Kočí, who commented actively on oral presentations. Attendees came from the Czech Republic, France, Germany, Italy, Japan, the Netherlands, Poland, Slovakia, Slovenia, Spain and the USA. The ice-breaker party, in the evening of 24 June, took place at the Natural History Museum of the Institute of Systematics & Evolution of Animals/Polish Academy of Science; fortunately, participants survived an unpredicted cloud burst and spontaneous floods of the basement. Attendees also had a chance to visit a temporary exhibit on the 'story of crabs'. During the scientific session on 25 June, results of ongoing work were presented as talks (20) and posters (11) (Figs. 3, 4) by the delegates. These sessions, conducted in an informal atmosphere, presented perfect opportunities for participants to discuss new scientific results, following the 3-year gap between meetings.



Fig. 1. The main building of the AGH University of Science and Technology [Akademia Górniczo-Hutnicza im. Stanisława Staszica], the symposium venue at Kraków (photograph by H. Kato).



Fig. 2. Participants and members of the organising committee of the 5th Symposium on Mesozoic and Cenozoic Decapod Crustaceans, in the main hall of the AGH University of Science and Technology, Kraków.



Fig. 3. The first talk of the scientific session on 25 June; Rodney M. Feldmann speaking on Middle Triassic Luoping (China) biota lobsters and shrimp (photograph by M. Krobicki).



Fig. 4. The poster session on 25 June; René Fraaije presenting novel ideas on Late Jurassic paguroid evolution (photograph by M. Krobicki).



Fig. 5. Day 1 of field work (26 June); Michał Krobicki introducing Callovian and Oxfordian (Jurassic) geology in the vicinity of Kraków (Zalas quarry) (photograph by Å. Ossó).



Fig. 6. Participants collecting from the fossil-rich Jurassic levels at Zalas quarry on 26 June (photograph by M. Krobicki).



Fig. 7. Workshop attendees on the look for Oxfordian crabs in limestones in Szklarka Valley on the first day of field trips (26 June; photograph by M. Krobicki).



Fig. 8. General view of the famous Kotouč quarry at Štramberk (Outer Flysch Carpathians, Czech Republic) on the second day of field work (photograph by M. Krobicki).



Fig. 9. Participants collecting from coral-bearing limestones of the so-called Štramberk-type limestones at Kotouč quarry, Štramberk (photograph by M. Krobicki).

The last two days of the symposium (26-27 June) were dedicated to field trips in the vicinity of Kraków and in the Carpathian Mountains (Czech Republic). On 26 June Callovian and, more particularly, Oxfordian limestones in the Kraków-Częstochowa Jura Upland (Zalas and Młynka quarries and Szklarka Valley outcrop) (Figs. 5-7) were studied and sampled. These strata are relatively rich in decapod crustaceans, mainly crabs, linked to Late Jurassic sponge buildups of the peri-Tethyan epicontinental sea. Such levels are part of the so-called sponge megafacies in Europe, extending from Portugal in the west to Romania in the east; they have been interpreted sedimentologically as sponge-bearing (Cyanobacteria-sponge) buildups/reefs that are surrounded by platy-type micritic limestones, formed as inter- and/or peri-bioherm environments on a deep-neritic seafloor. An enjoyable dinner party concluded the first day of excursions. The next day of fieldwork (27 June) was devoted to latest Jurassic/earliest Cretaceous, so-called Štramberk-type, coral-bearing limestones of the Outer Flysch Carpathians (Štramberk, the Czech Republic) (Figs. 8, 9); these now take the form of huge olistoliths within Late Cretaceous flysch deposits. Participants visited the famous Kotouč quarry at Štramberk; at some levels, decapod crustaceans are occasionally abundant.

During the final address, and the show of hands to determine the next venue in three years' time (La Voulte-sur-Rhône, France), it was decided by participants to publish contributions in a regular proceedings volume, in combination with a homage to our much respected colleague and good friend, Dr Pál Müller (Budapest), who could not attend due to severe illness. We all certainly missed his bright smiling face and perfect sense of humour during the meeting.

Last, but not least, I wish to express my gratitude to several people who helped during the symposium days and prior to the meeting, days full of stress and nerves: a sincere 'Thank you' to all members of organising committee: Anna Bagińska and Monika Cyrklewicz (PGI, Warszawa) for editorial work on the abstract book and field trip guidebook; Ewa Krzemińska, Natalia Starzyk and Wiesław Krzemiński (PAS, Kraków) for logistic support, especially during the 'watery' ice-breaker party; Sylwia Majewska (PGI) for technical assistance and Petr Skupien (VŠB-Technical University, Ostrava, Czech Republic) for leading attendees at Kotouč quarry.