

# OSTRACOD RESEARCH IN ACTUALITY – A SPECIAL ISSUE OF “CRUSTACEANA” (THE INTERNATIONAL JOURNAL OF CRUSTACEAN RESEARCH)

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The August 2014 issue of “*Crustaceana*”, one of the important journals dealing with crustacean research, published an interesting collection of papers dedicated to Professor Eugen Kempf, on the occasion of his 80<sup>th</sup> birthday (16 April 2012). Professor Kempf is a well-known specialist on Quaternary and Recent ostracods. In particular, he is currently appreciated for the development of an impressive database on Recent and fossil ostracods. That database has become a standard tool for ostracodologists in need of information on ostracod taxonomy and/or for current research on other topics dealing with ostracods. Beside his research on ostracods, Dr. Kempf was also an excellent and much valued professor of palaeontology at the University of Cologne. As a consequence, his students organized an ostracod symposium in his honour, in 2012, and most of the contributions published in this special issue (“*Crustaceana*”, volume 87, parts 8-9) were presented at that 2012 Cologne congress, which coincided with the 14<sup>th</sup> International German Ostracodologists’ Meeting.

The present volume, very well edited by four ostracodologists, Finn A. Viehberg, Renate Matzke-Karasz, Lisa Park Boush, and Alison J. Smith, presents 12 contributions, two of which deal with Kempf’s achievements. In a preface to the volume, the editors offer an overview of its contents and present a list of the 27 parts of the Kempf Database Ostracoda (KDO) that Professor Kempf compiled, organized, and published, between 1980 and 2013. Renate Matzke-Karasz presents an overview of Eugen Kempf’s biography and of the way his scientific activities achieved resonance among colleague ostracodologists, as well as in the academic community at the University of Cologne.

Alex. Mestre and colleagues offer a free-access biogeographic database for one of the most species-rich ostracod groups, the Entocytheridae, with representatives mainly in non-marine waters. An interesting feature of these ostracods is their specialization to a symbiotic life with various malacostracans, like Decapoda, Isopoda, and Amphipoda. There are two aspects that will interest students dealing with general problems of (palaeo)biogeography, especially, those studying trends in latitudinal geographic distributions. The Entocytheridae display a maximum of species diversity at intermediary latitudes, not close to the equator as is the case in many other groups. This anomalous distribution seems to be related to the specific burst of diversity of their hosts, especially, the high diversity of decapods in the central and southern parts of North America. The other interesting aspect is, that there is no narrow specialization in entocytherids to their malacostracan hosts, which obviously means that entocytherids are capable to enter and settle on more than one host species relatively easily.

An interesting aspect that will attract the attention of micropalaeontologists, is a series of papers conceived within an actuo-palaeontological perspective. Laurent Decrouy and Torsten W. Vennemann present a remarkable study on the ecological distribution of the ostracod community that nowadays inhabits Lake Geneva. The bathymetric distribution, the year cycle of species development, and their habitat distribution depending on sediment texture, food resources, and oxygen concentration, represent invaluable information for those who will further use the shell of ostracod species

for isotope analysis and for palaeoecological reconstruction of the lacustrine environment in the Central European lakes.

Claudia Wrozyńska and her colleagues describe an interesting divergence in the morphology of a South American ostracod, *Cytheridella ilosvayi*. This limnocytherid displays two different morphotypes for the female in the samples analysed, while only one such type exists for the male. The authors speculate the possibility of a mixture of bisexual and parthenogenetic forms in their population, something that, from a biological point of view, is important to be tested, also in fossil material belonging to other taxa of limnocytherids.

There are three short contributions with descriptions of new species, based mainly on shell morphology and with a cursory analysis of the limbs. Especially interesting is the contribution by Munef Mohammed and Dietmar Keyser, who present the valves of a tropical cytherid in detail, those valves showing a quite strong surface ornamentation. This cytherid comprises a new genus and species for which one would like to see again the famous Stereo-Atlas for ostracods, in a revived form, where valves could be examined in stereoscopic view. The other two short contributions are from Chinese colleagues, one by Dayou Zhai and Wanhe Zhao, dealing with limnic ostracods from northern China, and the other by Jian-Qiang Yin and colleagues, who deal with a new marine, bathypelagic species of Halocyprididae from the South China Sea.

Namiotko and colleagues redefined a group of triangular Candoninae belonging to the genus *Typhlocypris*. Its species nowadays live exclusively in groundwater habitats in Europe, but were earlier distributed also in the Parathetys and/or in Miocene to Quaternary non-marine standing waters. The well-known specialist of limnic ostracods Burkhard Scharf offers, with colleagues, two short contributions, one

on the ostracods from the town of Bremen, the other describing a sampling method for ostracods that live interstitially in coarse sediments.

Finally, the most spectacular contribution in this volume is that by Renate Matzke-Karasz and colleagues, who describe benthic limnic ostracods of the genus *Tanycypris* (Cypridoidea), which have the capability to jump from the bottom into the water column and then return to the bottom. Normally, benthic cypridoid ostracods either crawl on or into the sediment, or swim with their antennae for short distances above the substrate. The whole background of kinematics behind this behaviour is carefully described, and the morphology of the limbs that allows such jumps is presented as well. It is assumed that this peculiar behaviour represents an adaptation to avoid predation by macroorganisms like fishes, that live in standing waters or possibly to avoid sudden occurrence of environmental stressing conditions like, anoxia at the sediment-water interface.

All in all, the volume merits to be purchased by micropalaeontologists and/or zoologists currently working with ostracods. They will enjoy most, and probably profit from one or more of the other contributions mentioned above. In addition, the excellent presentation of the volume should stimulate more students dealing with ostracod research to offer their contributions to this exclusive journal. To conclude, it may be mentioned here that the publisher, Brill, at Leiden, has subsequently published this special volume of "Crustaceana" also as vol. 20 in their series "Crustaceana Monographs", in a hard bound cover.

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