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EDITORIAL

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The Young Systematists special issue—promoting the scientific work of early career scientists in taxonomy and systematics

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The Young Systematists, in German "Junge Systematiker" (JuSys; www.jusys.gfbs-home.de/), represent a non-profit organisation of early career scientists in the fields of taxonomy and systematics that spans across all groups of organisms. The JuSys were founded in 1998 as a working group of the newly founded German Society for Biological Systematics (GfBS) and have since evolved into an active, autonomous group that is also increasingly attempting to influence the political debate around the situation in taxonomic and systematic research (see the open letter of the JuSys on a debate in the German parliament about supporting taxonomic research by Kaiser et al. 2011). They currently have about 300 members of mainly, but not exclusively, German-speaking undergraduate and graduate students as well as postdocs. The JuSys are represented by a spokesperson who is elected by the members on a biannual term and represents the needs of the JuSys. The aim of the organisation is promoting and supporting early career scientists in taxonomy and systematics, primarily through a regular exchange of knowledge on methods and scientific questions through meetings and self-organised workshops. It also serves as an important network for the exchange of ideas and important information, such as scholarships, conferences, and job announcements, through a widely used email list server. The GfBS generously gives financial support for the organisation of the JuSys meetings and workshops as well as supporting individual JuSys members with travel grants for the annual GfBS conference.

This current, special volume of ODE both highlights and promotes the high quality, diversity, and impact of the research being performed by early career taxonomists and systematists as represented by the JuSys. The idea of a special volume of ODE including only contributions of early career scientists was discussed by some members of the JuSys and approved by the GfBS board in 2011 under the conditions that at least the first author is a member of the JuSys and that the papers otherwise meet all the normal requirements of the journal (including peer review). We, the guest editors of this volume, are also members of the JuSys and assumed our roles voluntarily. Under the guidance of the former chief editor of ODE, Olaf Bininda-Emonds, we were ultimately responsible for all aspects of the special volume, including issuing the call for papers, organising the review process of all submitted papers, and casting the editorial judgements. We want to thank all JuSys authors for trustfully submitting their manuscripts for this special issue and Olaf Bininda-Emonds for his great support in realising this project.

"The Young Systematists special issue" of ODE clearly demonstrates that the current generation of early career scientists in taxonomy and systematics has

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successfully acquired an amazing variety of new methods to address a multitude of questions and topics in zoology, botany, or microbiology that clearly extends beyond the traditional scope of taxonomy and systematics. In addition to classical comparative morphological investigations, the modern methodological toolkit of early career taxonomists and systematists presented in this special issue embraces phylogenetics, population genetics, ancestral area reconstructions, and DNA barcoding, among others. In so doing, the fundamental and integrative role that both taxonomy and systematics do and can play across all areas of biology is immediately obvious. Even more diverse than the methods applied are the organisms that were studied. They include arachnids (Schönhofer and Martens, 2012), bivalves (Steinert et al. 2012), gastropods (Huelsken et al. 2012; Weigand et al. 2012), holocephalan fishes (Licht et al. 2012), birds (Tietze and Borthakur 2012), and dinoflagellates (Soehner et al. 2012). Additional studies include a contribution on software packages (Silvestro and Michalak 2011) and on new conceptual definitions of classical morphological features, such as the arthropod plastron (Marx and Messner 2012).

By demonstrating the high-quality work of early career taxonomists and systematists, we also hope to raise awareness for the difficult situation that many of us experience in terms of employment and funding opportunities. The lack of a reasonable future perspective in finding a permanent position in the area of taxonomy and systematics, due to cuts of these positions at universities and even natural history museums and botanical gardens, eventually decreases motivation for young scientists to choose these important disciplines as a future scientific direction. The fundamental nature of both fields in biology, however, means the impact of this trend will be felt beyond the borders of taxonomy and systematics to the many other fields in biology that interface with them.

This state of affairs is, to some extent, fostered by the 'dusty' image of taxonomic and systematic research. Importantly, the work of the early career taxonomists and systematists presented in this special issue clearly demonstrates that these stereotypes do not apply to the new generation of scientists, with the integrative nature of their research meaning that promotion of early career scientists of these biological disciplines is of great importance, especially in these times with the tremendous loss of the planet's biodiversity.

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