

NOTE

The 44th Phylogenetisches Symposium — Bonn, 22–24 November 2002 — on ‘adaptive radiation’

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The meetings of the series “Phylogenetisches Symposium” (or “Symposion”, as it was sometimes called), were launched in 1956 by Curt Kosswig (1903, 1982), Wolf Herre (1909, 1997) and Adolf Remane (1898, 1976). The locations and years in which the symposia were held between 1956 and 1997 are listed in Kraus and Hossfeld (1998), the early years (until 1982) were documented by Otto Kraus (1984).

The 40th Phylogenetisches Symposium (on ‘paleontology and ontogeny’) took place at the Naturkunde-Museum in Berlin in 1998, the 41st (on ‘large-scale systematics — homologies and convergencies’) in Vienna in 1999, the 42nd (on ‘phylogeny and ecology’) in Hamburg in 2000, the 43rd (on ‘origins and evolution of the arthropods’) in Bielefeld in 2001, the 44th (on ‘adaptive radiation’) in Bonn in 2002, and the 45th (on ‘paraphyly — 50 years after Hennig’) in Munich in 2003.

Most remarkably, these symposia are neither organised nor sponsored by a learned society or other standing body. At each symposium, the audience decides by acclamation which invitation to accept for the next meeting. Year by year, at least one team of local organisers from another locality — university institute or museum — offers to host the following symposium.

In 2001, the delegates from Museum Koenig offered to the audience in Bielefeld to hold the next symposium and proposed ‘adaptive radiation’ as the topic, both of which was accepted. The main reason for choosing this topic was that it comprises all taxonomic fields — botany, zoology, protistology, microbiology — as well as different methodical approaches — paleontology, phylogenetics, molecular systematics, causal evolutionary research, population biology, evolutionary ecology.

Up to now, there is neither agreement on what exactly we deem ‘adaptive radiation’ to be, nor on how to explain this phenomenon (whichever way it is defined). In one

way or another, we all start from the assumption that speciation has something to do with ‘adaptive radiation’, and that the latter differs from ‘normal’ speciation by the rate of speciation events: ‘adaptive radiation’ is characterized by rapid splitting events within a comparatively short geological timespan. However, we are in no way certain what ‘rapid’ really means, nor can we fix the duration of the temporal sequence necessary to make it ‘adaptive radiation’. In addition, hardly any biologist speaking, writing, and probably thinking of ‘adaptive radiation’ makes clear how he or she distinguishes ‘adaptive’ from ‘non-adaptive’ radiation.

In the end, the lectures presented at the 44th Phylogenetisches Symposium did not finally clarify the mess either. But there were several promising attempts, and we, the organisers, hope that the papers compiled in the present issue — elaborations on all but one of the lectures presented, including the summary overview (Sudhaus, 2004; see also the comment by Gittenberger, 2004) — will be of some use to the reader and might at least stimulate further discussions.

References

- Gittenberger, E., 2004. Radiation and adaptation, evolutionary biology and semantics. *Org. Divers. Evol.* 4, 135–136.
- Kraus, O., 1984. Die Veranstaltung “Phylogenetisches Symposium”: Rückblick auf 25 Tagungen (1955–1982). *Verh. Naturwiss. Ver. Hamburg NF 27*, 277–289.
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- Sudhaus, W., 2004. Radiation within the framework of evolutionary ecology. *Org. Divers. Evol.* 4, 127–134.

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