

Editorial

When Peter Ax died on May 2nd, 2013, we lost a great zoologist who left his mark in various areas. He was specialist on flatworms, an important researcher on the interstitial system and its particular fauna, a theoretical systematist who made Willi Hennig's concept of phylogenetic systematics popular in Germany, and he possessed an excellent overview of metazoan morphology and phylogeny.

A number of obituaries were published in honour of Peter Ax (see references in the following articles) and on November 22, 2014 the Phylogenetic Symposium (Phylogenetisches Symposium), in which he had played a key role up until his retirement, was dedicated to 'Peter Ax and phylogenetic systematics'. The symposium was held in Hamburg.

During this symposium, five talks remembered the life of Peter Ax, each focusing on different aspects of phylogenetic systematics. All five authors have summarized their talks for this volume of *Peckiana*. We start with a list of publications by Peter Ax that was begun by Ax himself and finished by Rainer Willmann, his successor at the University of Göttingen. Willi Xylander looks back at the life of Peter Ax in an article

entitled: 'From the interstitial to the phylogeny of the animal kingdom – Peter Ax as a scientist and academic teacher'. This is followed by an investigation by Andreas Schmidt-Rhaesa of the reasons that made Peter Ax write a three volume book on the phylogenetic relationships of metazoans ('Peter Ax and the system of Metazoa'). Michael Schmitt focusses at character polarization and outgroup comparison, contrasting the approaches taken by Willi Hennig, Peter Ax and current practice: 'Hennig, Ax, and present day mainstream cladistics, on polarizing characters'. Walter Sudhaus demonstrates for mammals how phylogenetic reconstruction, anagenesis and a functional explanation of character evolution complement each other: 'From the cladogram to an explanation of anagenesis in an evolutionary history perspective, exemplified by the mammals'. Finally, Stefan Richter compares the way(s) in which Adolf Remane, Willi Hennig and Peter Ax defined and used the term 'homology': 'Peter Ax's views on homology – a comparison with Remane and Hennig'.

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