

Feast for the Odontologist

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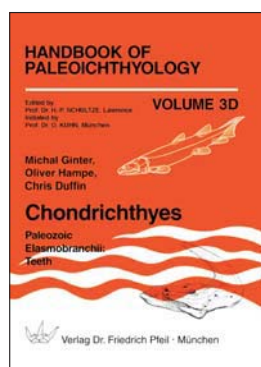
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Feast for the odontologist



M. Ginter, O. Hampe, and C. Duffin. 2010. *Chondrichthyes. Paleozoic Elasmobranchii: Teeth*. In: H.-P. Schultze (ed.), *Handbook of Paleichthyology, Volume 3D*. Verlag Dr. Friedrich Pfeil, München. 168 pp., 154 figs. + 4 tables. Price 120 Euros. ISBN 978-3-89937-116-1.

This new handbook by Ginter, Hampe and Duffin represents an extensive, outstanding work on Palaeozoic chondrichthyan teeth. One can easily appreciate what remarkable progress has been made in three decades in our understanding of various aspects of elasmobranch teeth since the earlier edition by Zangerl (1981). The book

commences with a comprehensive review of dental morphology in the Palaeozoic Elasmobranchii. It is followed by other sections summarising the general state of research, discussion and problems concerning the evolution of elasmobranch teeth, stratigraphy, palaeoecology, classification and phylogeny, all on the first 26 pages. Unlike other published volumes within the series, this book does not contain a chapter on “habitat and adaptations”. However, a brief account of elasmobranch palaeoecology is given for the well-known upper Famennian chondrichthyan biofacies. The book is illustrated with many refreshed and new photographs and drawings of teeth and dentition. Unsurprisingly, a large section (pp. 26–153) is devoted to a review of systematics, including comprehensive description of 135 genera. The authors draw particular attention to the cladodonts, as important revisions of the original American materials resulted in significant taxonomic clarification. In a few cases, when taxa (down to species level) are revisited, valid taxonomic names and proposed assignments are given in the tables (e.g., table 2, pp. 75–76). A single xenacanthid genus, the orodontiform family Leiodontidae and the superorder Cladodontomorpha are new. Other taxa are clearly redescribed and diagnosed (some emended), supported by a well-compiled database covering the type species, the geographic distribution of species, and the biostratigraphy as well as discussions on their systematic positions

and affinities. The list of cited references and bibliographies extends to 11 pages. The volume ends with an abbreviated list of institutions, and taxonomic indexes of genera and higher ranks.

The book is relatively highly priced by Verlag Dr. Friedrich Pfeil, but its length (this is the second largest volume in the Handbook of Paleichthyology series to date), numerous high-quality illustrations and good hardcover binding are worth it. The handbook will be a lasting and indispensable source for all readers from students to professionals who work with the Palaeozoic elasmobranchs. It should be on every palaeoichthyologist's bookshelf and in all institutional libraries. There is no doubt that the authors are leading specialists in their field. Figure 1 shows the authors in front of their handbook flyer, taken at a meeting, on Evolution and Diversity of Chondrichthyans at the University of Warsaw, 2008.



Fig. 1. Authors of the handbook from left to right: Drs. Michał Ginter, Oliver Hampe, and Christopher Duffin.

Reference

- Zangerl, R. 1981. Chondrichthyes I. Paleozoic Elasmobranchii. In: H.-P. Schultze (ed.), *Handbook of Paleichthyology, Vol. 3A*. 115 pp. Gustav Fischer, Stuttgart.

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