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EDITORIAL

The present collection of contributions focuses on palaeobiological aspects of fossil turtles from marine sediments in Central Europe from the Jurassic to the Neogene. This span covers a time of about 170 million years. The geographic frame is perceptible from the enclosed figure 1. From this region and time a large number of specimens have been collected which were either stored in the magazines of geoscientific institutes without being studied or disappeared as unidentified remains in private collections.

When I decided in the mid of the 1970 century to attend to fossil turtles, this was not only by chance. Initially aiming at Recent reptiles, I soon reached the limits caused by the serious restrictions of travelling by the political system of that time that has had its day now. They might not allow me to travel geographically, but they could not forbid me to travel through time!

Certainly I did not have access to those original materials which were stored in the western part of Germany. Furthermore each specialist was left alone in gathering international literature and thus was dependant on colleagues in the free world. In this respect I am grateful in particular to the support by France de Broin, Eugene S. Gaffney, Ren Hirayama, Peter A. Meylan, and Emiliano Jiménez-Fuentes who supplied me with copies of their important articles. My German colleague Hans Hermann Schleich presented my poster during the II. Palaeocheloniological Symposium in New York (1987). Eugene S. Gaffney and Peter A. Meylan arranged to transmit the manuscript to Emiliano Jiménez-Fuentes, Salamanca (Spain) who published it in *Studia Geologica Salmanticensia*. This step originated a co-operation of long with my friend and colleague Emiliano Jiménez-Fuentes which can be seen by the following link: http://dialnet.unirioja.es/servlet/busquedadoc?db=2&t=Hans-Volker+Karl&td=ARTREV.

The breakdown of the communist block enabled me to develop more scientific work. For example I could complete my doctoral thesis at the Paris-London-Universität in Salzburg (Austria). Since that time I published several contributions jointly with my supervisor Gottfried Tichy. After starting my lectureship for palaeobiology of vertebrates at the Geoscience Centre of the

University of Göttingen (Germany) with Joachim Reitner and Mike Reich I got contact to Elke Gröning, Brigitte and Carsten Brauckmann of Clausthal University of Technology in Clausthal-Zellerfeld (Germany) which again induced an extremely productive and friendly co-operation up to now. Not least because of the friendship and cooperation with Ulrich Staesche (formerly Geological Survey) who left me the legacy of his father, Karl Staesche, to the turtles.

All these lifelines are brought together in the present issue. They indicate the development of a *German-speaking Working Group On Fossil Turtles (GWGFT = Deutschsprachige Arbeitsgruppe fossile Schildkröten)*.

Important preparatory articles for the present issue are:

1. Hans-Volker Karl, Übersicht über die fossilen marinen Schildkrötenfamilien Zentraleuropas (Reptilia, Testudines) und.

2. Hans-Volker Karl: Ulrich Staesche, Gottfried Tichy, Jens Lehmann & Sabine Peitz, Systematik der Schildkröten (Anapsida: Chelonii) aus Oberjura und Unterkreide von Nordwestdeutschland.-Geol. Jb., B 98: 5-89.

During my Synthesys project DK-TAF-4140 at The Natural History Museum of Denmark in Copenhagen in 2008 I became acquainted with the colleagues Gilles Cuny, Bent K. Lindow, and Jesper Milan. At that time I could enlarge and increase my knowledge of materials. Likewise this phase of activity induced manuscripts on this matter which are partially included in the present issue. Further articles which are necessary for this project have already been published previously by two reasons: (i) to accomplish the demands of synthesys for publications and (ii) to relieve the present issue. The following contributions excluded here are parts of the whole conception:

I. *Rise of soft-shelled turtles*

3. Hans-Volker Karl: Palaeogeography and systematics of the genus *Dogania* Gray, 1844 (Testudines: Trionychidae).

4. Hans-Volker Karl, Elke Gröning & Carsten Brauckmann: New carettochelyine turtle occurrence from the Oligocene in Germany and it palaeozoogeographic importance.

II. *Rise of sea-turtles*

5. Hans-Volker Karl & Bent E. K. Lindow: First evidence of a Late Cretaceous marine turtle (Testudines: Chelonioidea) from Denmark.

6. Hans-Volker Karl & Gottfried Tichy: Zur Taxonomie einer neuen Tribus von Seeschildkröten aus dem Oligozän von Deutschland (Testudines: Chelonioidea).

7. Hans-Volker Karl & Gottfried Tichy: *Australobaena chilensis* n. gen. n. sp., and the homology of secondary palatines in marine turtles (Anapsida: Testudines).

III. *Rise of Leatherback-turtles*

8. Hans-Volker Karl: Some aspects of the evolution in Dermochelyidae (Reptilia, Testudines).

9. Hans-Volker Karl & Gottfried Tichy: *Maorichelys wiffeni* n. gen. n. sp., a new sea turtle from the Eocene of New Zealand (Chelonii: Dermochelyidae).

10. Hans-Volker Karl & Bent E. K. Lindow: Eocene leatherback turtle material of the genus *Egyptemys* (Testudines: Dermochelyoidea) from Denmark.

IV. *Chelonophagy*

11. Hans-Volker Karl & Gottfried Tichy: The structure of fossil teeth of chelonophagous crocodiles (Diapsida: Crocodylia).

V. *Marine Middle European turtle faunas*

12. Hans-Volker Karl: The fossil reptiles (Reptilia: Chelonii, Crocodylia) from the marine Early Oligocene of the Weisselster Basin (Central Germany: Saxonia).

13. Hans-Volker Karl & Arnold Müller: New fossil reptile material (Reptilia: Chelonii, Crocodylia) from the Lower Oligocene of Borken (Central Germany: Hesse).

Last but not least, my thanks and acknowledgements are due to the assiduous and reliable friends and colleagues in the background who contributed decisively to the appearance of the final versions of the articles: Brigitte Stefan (former TLDA) and Dirk Urban (Museen Erfurt) for their photographic work as well as Heike Künzel (TLDA) for her graphic work. Manuela Hartung from the library of TLDA was and is very helpful in search for hard to access literature.

With this thesis submitted for the certificate of habilitation the wheel of my researches on fossil marine turtles of Central

Europe comes full circle after more than two decades. They started with a first study on the Weißelster Basin in 1989.

I dedicate this work to the memory of my father Dipl. Ing. oec. Hans-Bernhard Karl (*10.03.1931, †21.06.2009), who supported me and taught the scientific work.

