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Book review

G. Daxner-Höck & E. Höck (Eds.), Catalogus Fossilium Austriae Band 4, Rodentia neogenica. Verlag der Österreichische Akademie der Wissenschaften. Wien (2015). 158 p. ISBN 978-3-7001-7819-4

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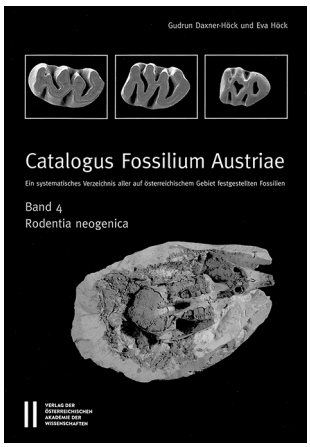

The first mammal fossils of Austria have been discovered during the end of the nineteenth century in the course of coal mining activities. The first collections were exclusively composed of large mammals and large-sized rodents. Only since the mid-twentieth century, and thanks to systematic screen washing of fossiliferous sediments, abundant small mammal assemblages have been recovered from various Neogene localities. Consequently, in the second half of the twentieth century, numerous studies of Austrian Neogene small mammals have been undertaken. Most of the Austrian localities yielded rich rodent assemblages, some of them being widely known as reference localities, providing a significant insight into the evolutionary history of European rodents. The rodent assemblages from the Miocene of Austria have been the subject of several publications, including already many important contributions of the authors, Gudrun Daxner-Höck and Eva Höck, along the years (e.g. Daxner-Höck 1972, 1975, 1977, 1980, 1998, 2003, 2004a, b, 2010; Daxner-Höck and Höck 2009). Their catalogue is the first attempt to gather in a single publication comprehensive information about the whole rich Miocene record of Austrian fossil rodents, covering 11 million years of evolution between the Early and Late Miocene. Although most of the rodent specimens have been found by screen washing and are represented by isolated teeth, the material presented in the catalogue also includes some well-preserved jaws and even a few very well-preserved partial skulls (e.g. *Hystrix parvae* from Kohfisch which illustrates the cover of the catalogue).

The contents of the book start with an introduction summarising the history of fossil mammals' discoveries in Austria and especially the recovery of small mammal assemblages resulting from systematic screen washing campaigns in various fossil-rich layers. The second chapter focuses on the presentation of 33 localities which yielded fossil rodent assemblages. Localities are first located on a map of Austria with regard to the main geologic structures, and then introduced one by one including their geographic situation, geologic context, age and an updated list of the rodent assemblage. It is worth noticing that some terrestrial deposits and their mammalian assemblages are of specific interest, because they are interfingered with marine deposits. This provides insightful

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information for correlation of continental and marine biostratigraphic units. At the end of the chapter, a stratigraphic chart of the Miocene synthesises all the information and proposes a correlation of each locality with the geologic time scale and the different European stages, stratigraphic subdivisions and biochronologic units. Following the presentation of the localities, the reader finds an extensive bibliographic list of all the publications cited in the catalogue.

The last chapter deals with the systematic palaeontology of all rodent taxa found in the Miocene record of Austria. First, a short introduction is provided for each family and subfamily, including a terminological figure. Each genus is presented with its type species, its dental formula, its main dental morphologic features and comments about systematic or the evolutionary context. Then, within genera, each species includes a synonymy list, hosting institutions and collection numbers of referred specimens, description of the main dental characters, occurrences outside Austria, stratigraphic range and various comments about the systematics or the evolutionary issues linked to the species. This chapter includes no less than 97 species from 53 genera and 7 families. Finally, the catalogue ends with abundant and high-quality illustrations. The pictures of rodent taxa presented in the systematic chapter are arranged in 77 plates including not less than 1286 illustrated specimens!

To summarise, the *Catalogus Fossilium Austriae, Rodentia neogenica* is an exhaustive publication about the Miocene rodents of Austria. It illustrates 11 million years of rodent evolution in Austria (from the biozone MN3 to MN 11) and presents a complete fossil record that witnesses the major diversification of rodents across the Miocene. The catalogue provides comprehensive information and its importance goes far beyond the borders of Austria as shown by the broad geographic distribution of most of the species at a European scale. Consequently, it is also a source of data for any analysis of mammal communities, phylogenetic relationships and palaeoecology, at the European scale.

If, like me, you work on the evolutionary history of Miocene mammals, you probably have a shelf, next to you, where you keep all the reference books and publications which you often refer to. *Catalogus Fossilium Austriae Band 4, Rodentia neogenica* definitely deserves a good place on this shelf.

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