

The early Vallesian vertebrates of Atzelsdorf (Late Miocene, Austria)

1. Introduction

By Gudrun DAXNER-HÖCK¹ & Ursula B. GÖHLICH²

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The locality Atzelsdorf is a former gravel pit northwest to the village of Atzelsdorf near Mistelbach in Lower Austria (N48°30'37", E 16° 32'39"). The site is situated in the marginal part of the Late Miocene palaeo-Danube delta in the Northern Vienna Basin and displays sand and gravels of the Hollabrunn-Mistelbach Formation. The geological setting, sedimentology and lithology of this formation are elaborated by NEHYBA & ROETZEL (2004).

The majority of the Atzelsdorf assemblage was collected by two private collectors, W. SCHEBECZEK (Pellendorf) and G. PENZ (Vienna), who consequently visited the abandoned sand- and gravel pit over many years. Finally, in 2003 integrated geological and palaeontological field activities were carried out by the Museum of Natural History Vienna in the Late Miocene palaeo-Danube delta. Within the framework of these investigations the Atzelsdorf section was studied (HARZHAUSER 2009, this volume), and systematic excavations followed focusing on the vertebrate bearing layer in the basal part of the section. The biostratigraphic correlation of Atzelsdorf with the early Pannonian (Vienna Basin Pannonian Zone C) and the lowermost Vallesian (MN9) is indicated by the co-occurrences of the bivalve *Mytilopsis hoernesi* (BRUSINA, 1892), and the coexistence of the equids *Anchitherium* and *Hippotherium*. For details on the locality's stratigraphy see HARZHAUSER (this volume: fig. 1).

To date, the collection of Atzelsdorf fossils represents about 30 vertebrate taxa, which are elaborated in the present volume. The Atzelsdorf fauna, which is based on about 300 determinable remains – mostly isolated teeth or bones – is characterized by a high number of species but a low number of individuals. Additionally, microwear-analyses on the represented taxa of artiodactyls and equids have been made by MERCERON (2009, this volume)

¹ Naturhistorisches Museum Wien, Geologisch-Paläontologische Abteilung, 1010 Wien, Burgring 7, Österreich; e-mail: gudrun.hoeck@nhm-wien.ac.at

² Naturhistorisches Museum Wien, Geologisch-Paläontologische Abteilung, 1010 Wien, Burgring 7, Österreich; e-mail: ursula.goehlich@nhm-wien.ac.at

Vertebrate fauna from Atzelsdorf

Pisces

“Pisces” indet.

Reptilia

Scleroglossa (see TEMPFER 2009, this volume)

Pseudopus pannonicus (KORMOS, 1911)

Chelonia (see DELFINO & GÖHLICH 2009, this volume)

Testudo cf. *burgenlandica* BACHMAYER & MLYNARSKI, 1983

Mauremys sp.

Trionyx sensu lato

Testudines indet.

Aves

Anseriformes (see GÖHLICH 2009, this volume)

Anas cf. *sansaniensis* MILNE-EDWARDS, 1868

Anserinae indet.

Mammalia

Lagomorpha (see ANGELONE 2009, this volume)

“*Amphilagus*” sp.

Rodentia (see DAXNER-HÖCK & BERNOR 2009, this volume)

Castoridae

Trogotherium (*Euroxenomys*) *minutum* (VON MEYER, 1838)

Steneofiber sp.

Carnivora (see NAGEL 2009, this volume)

Sansanosmilus vallesiensis BEAUMONT & CRUSAFONT 1982

Semigenetta sp.

Plesiogulo sp.

Mustelidae indet. aff. *Martes*

Mustelidae indet.

Hyaenidae indet.

Carnivora indet.

Perissodactyla

Equidae

Hippotherium sp. (see WOODBURN 2009, this volume)

Anchitherium aurelianense (CUVIER, 1812) (see DAXNER-HÖCK & BERNOR 2009, this volume)

Chalicotheriidae (see HEISSIG 2009, this volume)

Chalicotherium goldfussi KAUP, 1833

Rhinocerotidae (see HEISSIG 2009, this volume)

Aceratherium incisivum KAUP, 1832

Brachypotherium goldfussi (KAUP, 1834)

Ruminantia (see HILLENBRAND, GÖHLICH & RÖSSNER 2009, this volume)

Dorcatherium naui KAUP & SCHOLL, 1834

Micromeryx flourensianus LARTET, 1851
Palaeomeryx cf. *eminens* VON MEYER, 1847
Euprox sp.
Miotragocerus sp. vel *Tethytragus* sp.
Pecora indet.

Nonruminantia (see DAXNER-HÖCK & BERNOR 2009, this volume)

Albanohyus cf. *pygmaeus* (DÉPÉRET, 1892)
Parachleuastocoeris kretzoi FORTELIUS et al., 2005

Proboscidea (see GÖHLICH & HUTTUNEN 2009, this volume)

Deinotherium giganteum KAUP, 1829
Tetralophodon cf. *longirostris* (KAUP, 1832)

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