



Palaeobatrachid frog *Palaeobatrachus diluvianus* (GOLDFUSS 1831) from the Oligocene of Seifhennersdorf, $\times 2$.

THE FROG FROM SEIFHENNERSDORF

MADELAINE BÖHME

Ludwig-Maximilians-University Munich, Department of Earth and Environmental Science, Section of Palaeontology, Richard-Wagner-Str. 10, D-80333 München, Germany; e-mail: m.boehme@lrz.uni-muenchen.de



Böhme, M.(2007): The frog from Seifhennersdorf. – Acta Mus. Nat. Pragae, Ser. B, Hist. Nat. 63 (2-4): 215, Praha. ISSN 0036-5343.

Abstract: A complete specimen of *Palaeobatrachus diluvianus* (GOLDFUSS, 1831), Palaeobatrachidae from the Early Oligocene diatomite of Seifhennersdorf is commented on with respect to environment and distribution in northern Bohemia and elsewhere in Europe.

■ Amphibians, palaeobatrachids, Tertiary, ecology, Germany, Czech Republic

Received November 21, 2007
Issued December 2007

Articulated fossil frogs are palaeontological rarities. Not many fossil localities are known worldwide, where the discovery of a frog skeleton would not be an exception. However, in the České středohoří Mountains in northern Bohemia several such exceptional Fossilagerstätten are known, such as Bechlejovice, Markvartice/Veselíčko, Suletice, and Varnsdorf/Seifhennersdorf on the German-Czech Republic border. Intensified volcanic activity during the Early Oligocene (33 million years ago) provides the setting for a landscape with numerous maar and caldera volcanic lakes, providing unique conditions for fossil preservation of articulated frogs.

The frog reproduced on the front cover of this volume and in the page 216 was discovered in 1956 by Harald Walther in diatomaceous shale from the fourth seam in the locality of Seifhennersdorf (Saxony, Walther 1957). This record is not only one of the most beautiful specimens ever found in the region – it is probably also one of the most popular images of a fossil frog because it represents the origin for the artwork presented on a postage stamp issued in the German Democratic Republic on 24th October 1978 (Michel catalogue number 2373). This is so far the only fossil frog in philately (text-fig. 1).

The specimen kept in the private collection of H. Walther (Dresden) belongs to the species *Palaeobatrachus diluvianus* (GOLDFUSS, 1831), a palaeobatrachid frog. Palaeobatrachids are an extinct family of predominantly aquatic amphibians endemic to Europe¹, which are related to the extant pipid frogs from Africa and South America. One of their skeletal features is the development of a synsacrum, i.e. the fusion of the last two or three vertebra (Špinar 1972).

The figured specimen clearly illustrates the main characteristics of *Palaeobatrachus diluvianus*, namely the short and proximally broad urostyl and the participation of the last three vertebrae in the synsacrum. *P. diluvianus* is so far the smallest known palaeobatrachid, reaching a maximum snout-vent length of only 40 mm (Špinar 1972). Beside the localities of Seifhennersdorf in Saxony and Bechlejovice and Markvartice/Veselíčko in the České středohoří Mountains, this species is also well known from articulated skeletons

from the famous German “Fossilagerstätte” of Orsberg south of Bonn (Wuttke 1996). This record comes from a site nearly 10 million years younger (latest Oligocene) than Seifhennersdorf. Some disarticulated bones, assigned to this species by Špinar (1972) from the Early Miocene deposits of the North Bohemian Brown Coal Basin and the Cheb Basin, indicate, that *P. diluvianus* was present in Central Europe over an period of at least 13 million years (Early Oligocene to Early Miocene). All fossil localities represent lake environments, which may confirm the assumption that this species lived permanently in the water like their recent counterparts from the Southern Hemisphere.



Text-fig. 1. *Palaeobatrachus diluvianus* (GOLDFUSS 1831), Oligocene, Seifhennersdorf (coll. H. Walther) and its reproduction on the postal stamp.

References

- Sanchiz, B. (1998): Salienta. – In: Encyclopedia of Palaeoherpetology, part 4; Verlag Dr. Friedrich Pfeil, München, 275 pp.
- Špinar, Z. V. (1972): Tertiary frogs from Central Europe. – Czechoslovak Academy of Sciences; Prague, 286 pp..
- Walther, H. (1957): Lurchfunde aus dem Oberoligozän von Seifhennersdorf (Sachsen). – Jahrbuch des Staatlichen Museums für Mineralogie und Geologie zu Dresden, 1956/1957: 56–57.
- Wuttke, M. (1996): Die Frösche von Rott und Orsberg. – In: v. Königswald, W. (ed.): Fossilagerstätte Rott bei Hennef im Siebengebirge, Rheinlandia Verlag Siegburg, pp. 69–74.

¹ The systematic of the only North American fossil assigned to *Palaeobatrachus* is tentative (Sanchiz 1978).