



Palaeobatrachid frog *Palaeobatrachus diluvianus* (GOLDFUSS 1831) from the Oligocene of Seifhennersdorf

## THE FROG FROM SEIFHENNERSDORF

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

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

The frog reproduced on the front cover of this volume was discovered in 1956 by Harald Walther in diatomaceous shale of the fourth seam in the locality 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 original for the artwork presented on a postal stamp issued in the German Democratic Republic on 24<sup>th</sup> October 1978 (Michel catalogue number 2373), the so far 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 Europe<sup>1</sup>, 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 shows well 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 Seifhennersdorf in Saxony and Bechlejovice and Markvartice/Veselíčko in the České středohoří Mountains, this species is also well known by articulated skeletons from the famous

German Fossilagerstätte of Orsberg south of Bonn (Wuttké 1996). This record comes from nearly 10 million years younger site (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.

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<sup>1</sup> The systematic of the only North American fossil assigned to *Palaeobatrachus* is tentative (Sanchiz 1978)