

Hipparion proboscideum Studer from Romania

Ann Forstén

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A skull fragment of a hipparion found in Late Sarmatian deposits at Valea Sarii, District of Vrancea, Romania, may represent *Hipparion proboscideum*, earlier known from deposits of about the same age at Samos.

Ann Forstén, Department of Zoology, University of Helsinki, P. Rautatiekatu 13, SF-00100 Helsinki 10, Finland.

1. Introduction

A skull fragment of *Hipparion* (No. 118, University of Bucharest, Institute of Geology & Paleontology) found at Valea Sarii, district of Vrancea, Romania, may represent the species *H. proboscideum*, originally described from the Turolian of Samos (Studer 1911).

The specimen was originally identified as *H. gracile* Kaup (younger synonym of *H. primigenium* v. Meyer) and dated Upper Sarmatian (Barbu & Alexandrescu 1959). Later Macarovici (1967, 1971, 1976) referred the skull to *H. sevastopolitanum* Borissiak, probably mainly because of its stratigraphic age.

2. Material

The specimen comprises the central part of the skull with the R orbit, R P³—M³, and L P²—M³. The skull is large: the worn tooth row is 15.4 cm. The teeth are much plicated, the plication count

reaches 32 in L P³, the protocone is elongated, and the hypocone well marked. On the R side the posterior rim of the preorbital fossa is visible. The fossa is well marked, the upper rim being situated high under the nasals, its posterior border on a line with the parastyle of M³. The distance orbit—fossa is 2.50 cm.

3. Discussion

In its large size and the placement of the preorbital fossa close to the orbit the specimen resembles *H. proboscideum* from Samos-Andrianó. In a scattergram with the distance orbit—fossa plotted against distance P²—orbit the specimen falls among observations on *H. proboscideum* (Fig. 1:V). *Hipparion proboscideum* differs from *H. sevastopolitanum* in its larger size and the shorter distance orbit—fossa (Fig. 1: Sv, data after Borissiak 1914) and from *H. primigenium* in the much shorter distance orbit—fossa (Fig. 1:K, referred material

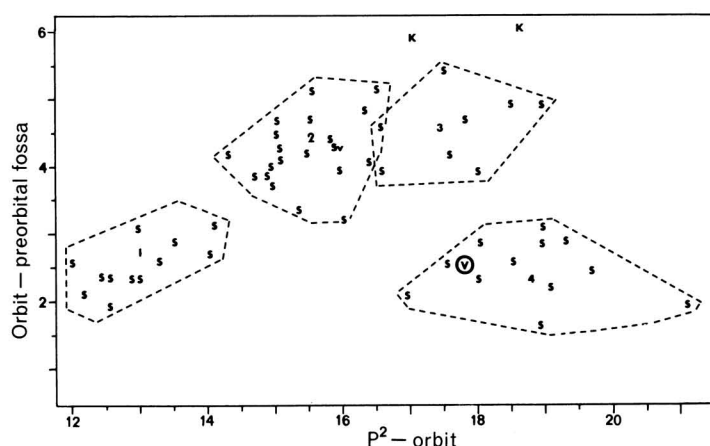


Fig. 1. Distance orbit—preorbital fossa plotted against distance P²—orbit on skulls from Samos; measurements in cm. Observations on the different *Hipparion* species delimited with dashed lines: 1. *H. matthewi* Abel; 2. *H. schlosseri* Antonius-*H. dietrichi* Wehrli; 3. *H. sp*; 4. *H. proboscideum* Studer; Sv = *H. sevastopolitanum* Borissiak, Sevastopol; K = *H. primigenium* v. Meyer, Kalfa; V = Valca Sarii, Romania.

from the Middle Sarmatian of Kalfa, Moldavian SSR; Lungu 1973, Forstén 1979).

The deposits at Samos-Adrianó (= Samos Quarry 1) have been dated 8.9 Myr and are considered roughly contemporaneous with Pikermi, i.e. Turolian in the W. European terminology (Van Couvering & Miller 1971: fig. 2). Gabunia (1961: 327, 330) and Korotkevič (pers. comm. 1978) consider Pikermi Upper Sarmatian in the

E. European terminology. The skull from Valea Sarii could thus be of the same age as the fossils from Samos-Adrianó.

The preorbital fossa, especially its placement in relation to the orbit, is one of the morphological characters that can be used for comparing local forms of *Hipparion*. It is a variable character and at most of specific significance.

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