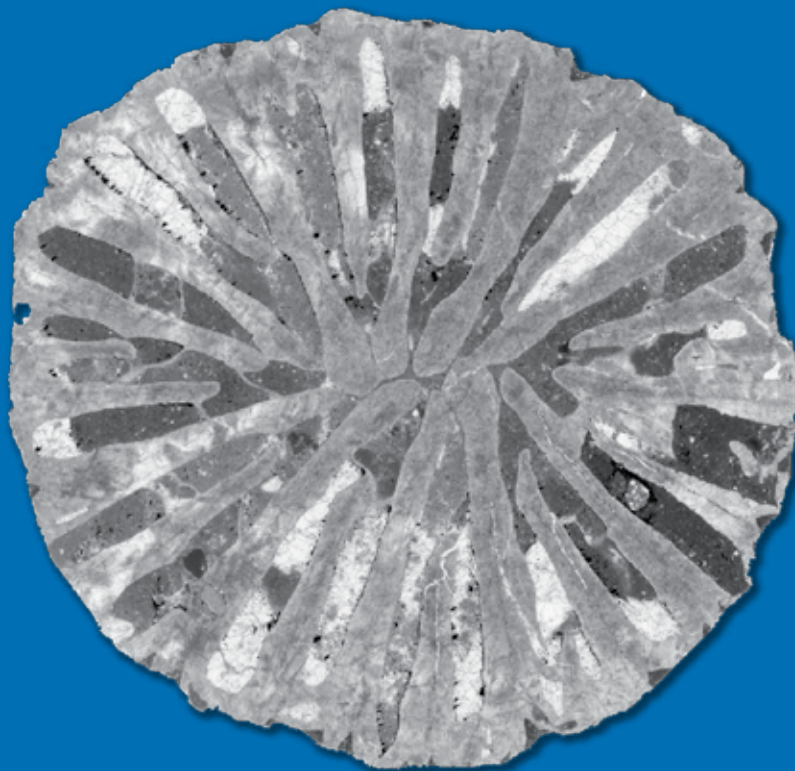


# Zitteliana

An International Journal  
of Palaeontology and Geobiology

Series A/Reihe A  
Mitteilungen der Bayerischen Staatssammlung  
für Paläontologie und Geologie

53



München 2013



Bayerische  
Staatssammlung  
für Paläontologie und Geologie

- Zitteliana A 53, 179 – 180
- München, 31.12.2013

- Manuscript received  
21.11.2013; revision  
accepted 06.12.2013

- ISSN 1612 - 412X

## Short communication

# ***Hystrix* record from Taşkinpaşa (Upper Miocene, Central Anatolia)**

Jérôme Prieto

Department for Earth and Environmental Sciences, Ludwig-Maximilians-University Munich & Bavarian State Collections for Palaeontology and Geology, Richard-Wagner-Strasse 10, D-80333 Munich, Germany

E-mail: j.prieto@lrz.uni-muenchen.de

**Key words:** Hystricidae, porcupine, Turkey

**Schlüsselwörter:** Hystricidae, Stachelschwein, Türkei

A single tooth from Taşkinpaşa (Central Anatolia, Turkey) discovered in the large collection of beaver fossils housed at the Bavarian State collection for Palaeontology and Geology (BSPG) in Munich, Germany, was erroneously assigned to *Steneofiber* cf. *jaegeri*, but in fact belongs to a porcupine.

Because of striking similarities in overall morphology, discriminating isolated fossil teeth of rodents in the family Castoridae from teeth of members of the Hystricidae may be challenging, especially when dealing with the hystricid genus *Anchitheromys* (e.g., Van Weers 1993; von Koenigswald & Mörs 2001, and reference therein).

The tooth from Turkey (Fig. 1b,c) is clearly broader at its occlusal surface than at its crown basis. This feature allows to exclude affinities of the fossil with *Anchitheromys*. Moreover, the fundamental mor-

phological pattern of the upper molars is relatively uniform in the family Hystricidae (Van Weers 1993), precisely as in the specimen from Taşkinpaşa. Finally, the teeth of the Miocene beaver(s) *Chalicomys*/*Steneofiber* (e.g., Casanovas-Vilar & Alba 2011 for taxonomic information of these genera) are considerably smaller and hypsodont, and thus cannot be confused with the specimen discussed in this paper.

According to the entry in the field book, the specimen was collected by T. Oettinger in 1957, and was a surface discovery on the tuff mine dump, Taşkinpaşa, 16 km sud-sudeast of Ürgüp. This description concurs with the data provided by Şenyürek (1954), who studied the fossil locality Taşkinpaşa. The locality is well known among paleontologists, due primarily to the occurrence of well-preserved remains of the Giraffidae *Samotherium*.

The tooth (Fig. 1) belongs to a relatively old individual, and has a rounded outline, as it is often the case at this stage of wear (Fistani et al. 1997).



**Figure 1:** *Hystrix* (*H.*) cf. *primigenia* (Wagner, 1848) from Taşkinpaşa. Right M1 or M2 (SNSB-BSPG 1957 I 336); (a) occlusal view; (b) lingual view; (c) labial view.

Because of the outline and morphology of the occlusal surface, P4 and M3 can be ruled out. Distinction between the first and second upper molars is impossible in this case. Regarding the size (10.11 x 8.92 mm at occlusal surface), the molar is slightly smaller than the M1 and M2 of *Hystrix* (*H.*) *depereti* from Perpignan, and falls within the size range of *H. (H.) primigenia* from Pikermi (Şen 2001: fig. 5). Moreover, the hypoflexus starts at 8.6 mm from the crown basis, which is closer to *H. (H.) primigenia* (7–8 mm in Pikermi and Hadji Dimovo) than to *Hystrix* (*H.*) *depereti* (>10mm, Şen 2001). However, it is impossible to safely assign the tooth to either of these two or yet another species with confidence.

The fossil locality Taşkinpaşa has been dated as Late Miocene, MN 12, and the presence of *H. (H.) primigenia*-like fossils corroborate this dating (stratigraphical range of the species in SE Europe and Asia is MN11/12–MN13; see Weers & Rook 2003). During the Miocene and early Pliocene, the porcupines are represented in Anatolia with both *H. (H.) primigenia* and *Hystrix* (*H.*) *depereti*; the former has been recorded for Eski Bayirköy (Upper Miocene, problematic collection, see Kaya et al. 2012), Gülpınar (MN 12), Kemiklitepe A/B (MN 11/12) and Şerefköy-1 (MN 12) (Ünay & Bruijn 1984, Şen 1994, Van Weers & Rook 2003), while the latter form belongs to the fauna of Çobanpınar, Sinap 42, MN 12 (Van Weers & Rook 2003).

### Acknowledgments

Gertrud Röbner (Munich) is thanked for making the specimen available for study and constructive comments on an earlier draft of this note.

### References

- Casanovas-Vilar I, Alba DM. 2011. The never-ending problem of Miocene beaver taxonomy. *Acta Palaeontologica Polonica* 56, 217–220.
- Fistani AB, Pavlakis PP, Symeonidisi N. 1997. First discovery of *Hystrix primigenia* Wagner from the Late Miocene to Early Pliocene deposits of Shahinova, Berat, South-West Albania. *Annalen des Naturhistorischen Museums in Wien* 98 A, 155–172.
- Kaya T, Mayda S, Kostopoulos DS, Alcicek MC, Merceron G, Tan A, Karakutuk S, Giesler A, Scott RS. 2012. Şerefköy-2, a new Late Miocene mammal locality from the Yatagan Formation, Mıgla, SW Turkey. *Comptes Rendus Palevol* 11, 5–12.
- Koenigswald W von, Mörs T. 2001. The enamel microstructure of *Anchitheriomys* (Rodentia, Mammalia) in comparison with that of other beavers and of porcupines. *Paläontologische Zeitschrift* 74, 601–612.
- Şen S. 1994. Les gisements du Miocène supérieur de Kemiklitepe, Turquie: 5. Rongeurs, Tubulidentés et Chalicothères. *Bulletins du Musée national d'Histoire Naturelle*, Paris 16, 97–111.
- Şen S. 2001. Early Pliocene porcupine (Mammalia, Rodentia) from Perpignan, France: a new systematic study. *Geodiversitas* 32, 303–312.
- Şenyürek MS. 1954. A study of the remains of *Samotherium* found at Taşkinpaşa. *Ankara Üniversitesi Dil ve Tahir-Cografya Fakültesi Dergisi* 12, 1–32.
- Ünay E, de Bruijn H. 1984. On some neogene rodent assemblages from both sides of the Dardanelles, Turkey. *Newsletter in Stratigraphy* 13, 119–132.
- Van Weers DJ. 1993. Teeth morphology and taxonomy of the Miocene rodent *Anchitheriomys suevicus* (Schlosser, 1884), with notes on the family Hystricidae. *Proceedings of the Koninklijke Nederlandse Akademie van Wetenschappen* 96, 81–89.
- Van Weers DJ, Rook L. 2003. Turolian and Ruscinian porcupines (genus *Hystrix*, Rodentia) from Europe, Asia and North Africa. *Paläontologische Zeitschrift* 77, 95–113.

# ZOBODAT - [www.zobodat.at](http://www.zobodat.at)

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Zitteliana Serie A](#)

Jahr/Year: 2013

Band/Volume: [53](#)

Autor(en)/Author(s): Prieto Jerome

Artikel/Article: [Short communication Hystrix record from Taşkinpaşa \(Upper Miocene, Central Anatolia\) 179-180](#)