



## WISSENSCHAFTLICHE KURZMITTEILUNG

### The desert hedgehog, *Paraechinus aethiopicus* (Ehrenberg, 1833), new to the fauna of Syria

By D. KOCK and C. EBENAU

*Forschungsinstitut Senckenberg, Frankfurt a. M.*

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The mammal fauna of desert regions of Syria is still imperfectly known both with regard to species number and to distribution. Recent field work in the Euphrates valley (by C. E.) resulted in the addition of a third species of hedgehog, *Paraechinus aethiopicus* (Ehrenberg, 1833), to the Syrian fauna. Previously only *Erinaceus concolor* Martin, 1838, and *Hemiechinus auritus* (Gmelin, 1770) were known from this country (HARRISON and BATES 1991). Besides Syria, only Israel, Palestine and Jordan host such a high species diversity of spiny hedgehogs (Erinaceinae) due to the geographic position at the crossing of three faunal realms, the Palaearctic, Oriental and Aethiopian region.

Material: Cater Magara Cave at Hussein al-Achmad village, 35.53.N – 39.01.E, ca. 2.5 km W of Ratla, S-bank Euphrates, II. 1993. unsexed subad. (Skull and mandibles) Senckenberg-Museum Frankfurt SMF 79445, C. EBENAU leg.

Comparative material: Saudi Arabia: Riyadh, 1958, unsexed (skull, skin) SMF 19919. Near Abqaiq (= Abqaiq), 25.26.N – 49.40.E, unsexed (skull) American Museum Nat. History, New York, AMNH 166942 (labeled “*hypomelas*”, emend. IX.1977, not measured). *P. ae. pectoralis* (Heuglin, 1861): Jordan: Azraq area, 24. III. 1977, male (skull, skin) SMF 54967, R. KINZELBACH leg.

Measurements, in this sequence: Ratla, Riyadh, Azraq: Occipito-premaxillary length 46.2, –, 50.8; condylobasal length 46.55, 47.6, 50.8; zygomatic width 28.55, 27.5, 29.5; inter-orbital constriction 12.9, 12.5, 13.65; postorbital constriction 11.6, 10.5, 11.5; mastoid width 26.1, –, 27.9; upper tooththrow I1/-M3/, alveolar 21.9, 21.75, 24.5; mandible length from condylus 32.2, 34.7, 36.6; mandibular angular length 34.6, –, 37.5; PM4/ width 3.58, 4.43, 4.42.

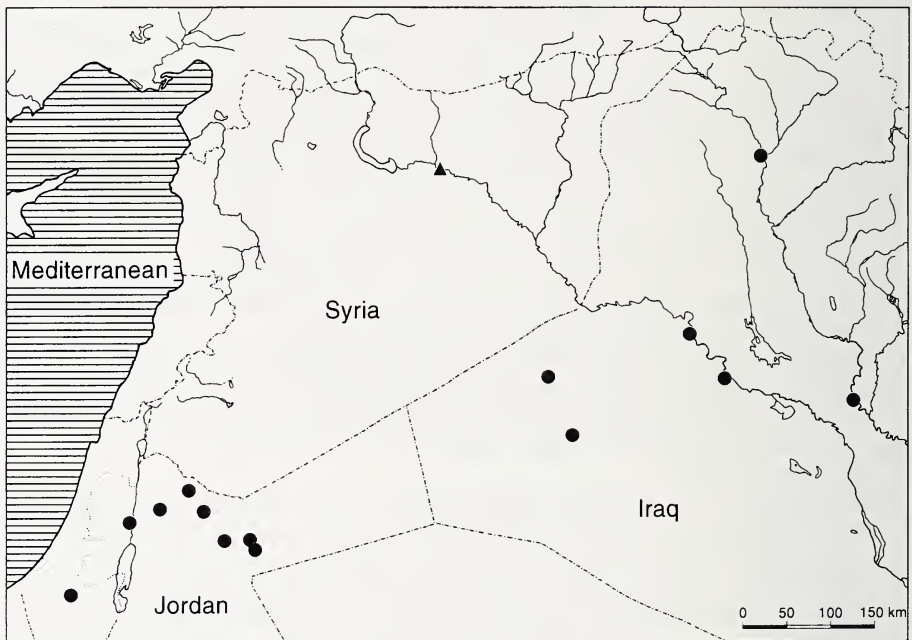
The broadly flared zygomatic arches, high brain case, large tympanic bullae, and antero-dorsally elongated condylar process of the mandible identify the present Syrian specimen as *P. aethiopicus* (cf. FROST et al. 1991) and differentiate it from other Arabian hedgehog species. In skull characters it agrees with a large sized specimen of *P. ae. pectoralis* (loc. typ. Petra, Jordan) from Azraq by inflation of bullae and pterygoids; it has, however, the upper canine less strong and the last upper premolar narrower.

The taxonomy of the Saharo-Arabian desert hedgehogs related to *P. aethiopicus* varies from recognition of several species to a reduced number of subspecies; for reviews, discussions and divergent taxonomy see CORBET (1988), FROST et al. (1991), HARRISON and BATES (1991), and NADER and AL-SAFADI (1993). For the populations of *P. aethiopicus* in the Middle East, HARRISON and BATES (1991) consider local Arabian subspecies other than *P. ae. pectoralis* of doubtful validity, *P. ae. ludlowi* Thomas, 1919 possibly excepted because of its lighter coloration. Subspecies definitions for *P. aethiopicus* in Arabia are thus not established. Coloration as a character is not available in the Syrian specimen. In skull

measurements, condylobasal length excluded because of subadult age, it does not differ appreciably from the pooled measurements given by HARRISON and BATES (1991) for *P. aethiopicus* throughout Arabia and by NADER and AL-SAFADI (1993) from SW Arabia. The reduced size of PM4/ has not been used as a criterion for subspecies definition. Despite of originating from the region where *P. ae. ludlowi* is expected to occur (loc. typ. Hit, south bank of the Euphrates, Iraq), the length of the upper tooththrow (I1/-M3/, permanent dentition) differs obviously (21.9 versus 25.2 in *ludlowi*; THOMAS 1919).

*P. aethiopicus* occurs widely in Arabia (HARRISON and BATES 1991; additionally PALFREY 1988: Summan Plateau; NADER and AL-SAFADI 1993: numerous localities in SW Saudi Arabia and northern Yemen; KOCK and NADER 1996). The present specimen documents the first record from Syria and extends the species range by ca. 350 km NW from Haditha (HATT 1959), the nearest Iraqi locality downstream in the Euphrates valley.

The presently known northwestern limit of the species range in the Middle East is marked by the following records from SW to NE (Fig. 1):



**Fig. 1.** *Paraechinus aethiopicus*: New record in Syria (triangle) and northwestern records known (dots) in the Near East (after HARRISON and BATES 1991 and this study).

In Israel: Beer Sheba, Negev (HARRISON and BATES 1991); in Palestine: Adamah Bridge 40 km N Dead Sea (YOM-TOV 1988); in Jordan: Azraq Shishan (BOYD 1966); Dibe'en, SW of Jerash; Qasr Amra; Shaumari Wildlife Reserve (CLARKE 1977); Wadi Dhulayl; Mafrag; Qasr al-Halabat (AMR and DISI 1988); in Iraq: 7 miles S Qasr al-Helqum, 33.48.N – 40.35.E, Syrian Desert (HARRISON 1964); 40 km E of Rutbah, 33.03.N – 40.18.E, Syrian desert (NADACHOWSKI et al. 1990); Hadithah, 34.07.N – 42.32.E (HATT 1959), Hit (THOMAS 1919), and Hamam al-Alil 25 km SE of Mossul, 36.10.N – 43.16.E (BHATNAGAR and EL-AZAWI 1978).

This new find of *P. aethiopicus* enlarges the area of sympatry with *Hemiechinus auritus* (see CORBET 1988; HARRISON and BATES 1991). As far as presently recorded, *H. auritus* ranges into the Syrian Desert west to a line running north-east from Damascus – Qaryatayn – Palmyra (HARRISON and BATES 1991) – Rasafah (= Réssafé, Sergiopolis; SMF 60370) and along the south bank of the Euphrates from Halabiye (SMF 74067) southeast to Duro Europos (= As-Salahiya; SMF 80624) and into Iraq. *P. aethiopicus* and *H. auritus* have as yet not been found to occur syntopically in the Syrian desert, but may do so along the Euphrates valley. The present specimen, found as a carcass at the cave entrance, may have originated from nearby desert habitat and could have been transported to this site.

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**Authors' addresses:** Dr. DIETER KOCK, Forschungsinstitut Senckenberg, Senckenberg-Anlage 25, D-60325 Frankfurt a. M. and CARSTEN EBENAU, Barchemhöhe 27, D-45357 Essen, Germany.

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Autor(en)/Author(s): Kock Dieter, Ebenau Carsten

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