

Snake species new or rare to the herpetofauna of Iraq

Biodiversity in Iraq has some peculiarities due to the country's geographic location. The territory of the Republic of Iraq is a land bridge between three basic zoogeographical divisions: Palaearctic, Ethiopic and Oriental. Great parts of the south and west are covered by an extension of the Arabian Desert. The desert is divided by the Mesopotamian Plane (valleys of the rivers Euphrates and Tigris) and surrounded by the Kurdistan mountains in the north and east. The marshes of the south have their specific ecosystems. Because of this considerable ecological diversity, the fauna of Iraq including its reptiles is of great interest. Unfortunately, because of the tense political situation and the wars of the last decades, only few studies and surveys were done on the Iraqi fauna. The available compilations of snakes occurring in Iraq are that of CORKILL (1932), KHALAF (1959), MAHDI & GEORG (1969), JOGER (1984) and LEVITON et al. (1992). This note refers to specimens collected by the authors and stored in the collection of Natural History Museum of the Baghdad University (NHMBU). The number of longitudinal dorsal scale rows was counted at midbody.

Natrix natrix persa
PALLAS, 1814

Together with five *Natrix tessellata* (LAURENTI, 1768), five specimens of *N. natrix persa* were brought to the Invertebrate Laboratory of the Natural History Museum of the Baghdad University for examination of their endoparasites. The snakes (NHMBU 751-755, June 10, 2011) were collected from near the Dialah bridge, 10 km east of Baghdad (Figs. 1, 2). There is no earlier Iraqi record of *N. natrix* than the present material.

Morphology: The snakes are easily distinguished from *N. tessellata* by the presence of a bright unbroken longitudinal stripe on each side of the body. 19 longitudinal series of strongly keeled dorsal scales. Ventrals 173-180, subcaudals 60-69. Seven upper labials, the 3rd and 4th entering the eye, 8-11 lower labials. One preocular and 3 postoculars.

Distribution range: almost all of Europe including Russia, Belarus, Moldova, Ukraine, Armenia, Georgia, Azerbaijan, Kazakhstan, Turkmenistan, northwestern China, and northwestern Mongolia, in the east, Transcaucasia, Anatolia, Cyprus, Syria, northern Iran and northwestern Africa in the south (VENCHI & SINDACO 2006).

Echis carinatus sochureki
STEMMLER, 1969

Two specimens (NHMBU 756-757, leg. AL-FARTOSI, June 13, 2011) collected from the village of Said Dakheel near Al-Nasiriyah, southern Iraq (31°07'53"N, 46°26'10"E) (Fig. 3).

Morphology of the longer specimen: Total length 60 cm, tail length 5 cm; dorsal scales in 30 longitudinal rows; 173 ventral plates, 34 undivided subcaudal plates; anal scute single; 11 upper labials, the 4th being largest; 12 lower labials; one row of scales between upper labials and oculars. There is a clear arrow or cross shaped mark on the upper surface of the head. Body with 40 whitish vertebral and lateral spots.

Distribution range: N India, Bangladesh, S Afghanistan, Pakistan, Iran, S Iraq, Oman (JOGER 1984).

Remarks: CORKILL (1932) referred to the snake under the name *Echis carinatus* (SCHNEIDER, 1801) and mentioned it from Diwaniyah, southern Iraq, close to our collection site of Al-Nasiriyah (Zekar). Since that time, it was regarded a rare snake in Iraq as no further specimens became known. But in this year (2011), a dry winter together with late rains at the end of a hot April (possibly the impact of global warming and changing of the climate) caused an increase of humidity and, as a consequence, obviously mass reproduction of *Echis* at Said Dakheel. 30 fatalities in April alone, in that particular area, were ascribed to bites by this snake. The plague from these snakes in southern Iraq was subject to various newspaper articles and internet documents. However, the commonly suspected reason was an exodus of the snakes from the marshland in the south caused by drought due to reduced water supply of the rivers Euphrates and Tigris. This was explained



Fig. 1: *Natrrix natrrix persa* PALLAS, 1814 from near the Dialah bridge, 10 km east of Baghdad, Iraq (NHMBU No. 752).



Fig. 2: *Natrrix natrrix persa* PALLAS, 1814 from near the Dialah bridge, 10 km east of Baghdad, Iraq (NHMBU Nos. 752, 753). Heads from lateral.



Fig. 3: *Echis carinatus sochureki* STEMMER, 1969 from the village of Said Dakheel near Nasiriyah (Zekar), southern Iraq (NHMBU No. 756).

by large scale water abstraction for up-stream reservoirs and irrigation purposes in Turkey and Syria.

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KEY WORDS: Reptilia: Squamata: Serpentes: *Natrix natrix persa*, *Echis carinatus sochureki*, new country record, Iraq

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