Notable herpetofaunal records from Transjordan

by Yehudah L. Werner

Abstract: From material in the Hebrew University, *Cyrtodactylus scaber* (Gekkonidae) is reported for the first time from Jordan, and the occurrence there of *Bunopus blanfordii* (Gekkonidae) and *Acanthodactylus pardalis* (Lacertidae) is confirmed. *Coluber elegantissimus* (Colubridae) is re-instated in Jordan's herpetofaunal list.

Kurzfassung: An Hand von Material der Hebräischen Universität, wird *Cyrtodactylus scaber* (Gekkonidae) zum ersten Mal von Jordanien nachgewiesen, und das dortige Vorkommen von *Bunopus blanfordii* (Gekkonidae) und *Acanthodactylus pardalis* (Lacertidae) bestätigt. *Coluber elegantissimus* (Colubridae) wird wieder in die herpetofaunistische Liste Jordaniens aufgenommen.

Key words: Jordan – Middle East – lizards – Ophidia – zoogeography

Introduction

In the two decades which have passed since I discussed the herpetofauna of Transjordan (WERNER 1971), advances in the knowledge of this herpetofauna have been largely limited to the Ophidia (DISI et al. 1988, DISI 1991). The herpetological collection in the Hebrew University of Jerusalem (HUJ-R, part of the Israel National Collections of Natural History) has long contained unpublished material relevant to Jordan's herpetofauna. The most outstanding records are presented here.

Species accounts

Bunopus blanfordii (Strauch, 1887) (Sauria: Gekkonidae)

According to ARNOLD (1980) this is probably a synonym of *B. tuberculatus* (Blanford, 1874). The occurrence of this Arabian gecko in Transjordan has been inferred (WERNER 1971) because it has been frequently collected on the Israeli side of the 'Arava valley which is shared by Israel and Jordan (WERNER 1987). Actual documentation is provided by specimens HUJ-R 13,680 and 13,683, collected near the Gharandal police station, Jordan, 30°05'N 35°12'E, on 14.xi.1975, donated by S. HAIAT. The animals were kept alive until their death in September 1976.

Cyrtodactylus scaber (Heyden, 1827) (Sauria: Gekkonidae)

According to SZCZERBAK & GOLUBEV's (1986) classification this species belongs to the genus *Tenuidactylus*. Its main distribution is from Pakistan to SE Turkey, E Syria and NW Iraq (SZCZERBAK & GOLUBEV 1986: Fig. 84) although it is also known from Sinai (WERNER 1982, BARAN & WERNER, in preparation). Its occurrence in NE Jordan is established by 3 specimens: HUJ-R 10601 from near the border with Iraq and Saudi Arabia and HUJ-10602, 10603 from the H4 pumping station of the Iraq Petroleum Company pipeline (32°30'N 38°12'E), all collected in June 1966 by H. ZINNER.

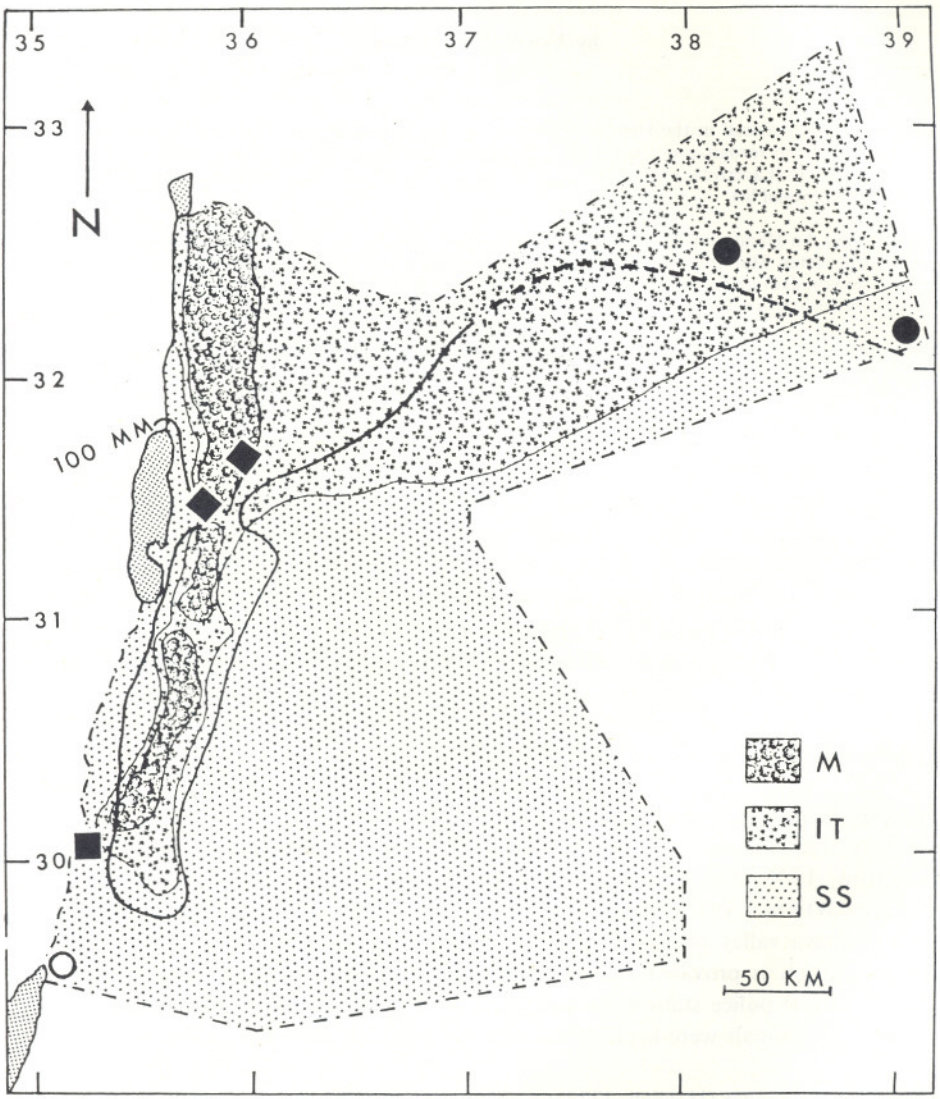

Fig. 1. Sketch map of Transjordan showing the approximate locations of specimens discussed in the text: ■ *Bunopus blanfordii;* ● *Cyrtodactylus scaber;* ♦ *Acanthodactylus pardalis;* ○ *Coluber elegantissimus.* Background shading indicates the biogeographical zones (from WERNER 1971): M = Mediterranean; IT = Irano-Turanian; SS = Saharo-Sindian. The 100 mm isohyet is interrupted where based on extrapolation. (The Jordan-Saudi Arabia frontier is given as before 1964).

Acanthodactylus pardalis **(Lichtenstein, 1823) (Sauria: Lacertidae)**

ARNOLD (1987) considered *A. pardalis* to be one of those north African reptiles which failed to expand to the east of the 'Arava Valley. SALVADOR (1982) stated cautiously "It's possible that some reports for the species in Jordan are valid as I have been able to confirm in my examination of the specimen LACM 74340 from Ara'ir, Jordan." We have another specimen from Jordan: HUJ-R 1296, 30 or 36 km*) S of Amman, G. HAAS, H. MENDELSSOHN and O. THEODOR. This specimen was described by HAAS (1943) but unfortunately was omitted from later listings (HAAS 1951, WERNER 1971).

Coluber elegantissimus **(Günther, 1878) (Ophidia: Colubridae)**

DISI et al. (1988) excluded this Arabian snake from their key to the snakes of Jordan, although the second known specimen originated from Akabah (Al Aqabah, Jordan, 29°33'N 35°00'E) (HART 1891, GASPERETTI 1988). The species has a wide though infrequent occurrence in both Saudi Arabia (GASPERETTI 1988) and the Israeli parts of the 'Arava Valley (WERNER & SIVAN 1991) which indicates that in Jordan it is probably not restricted to Al Aqabah.

Discussion

In the zoogeography of Transjordan, interest focuses on two aspects: The division of Transjordan (as of Cisjordan) by the frontier of the desert, and the degree of separation of Transjordan from Cisjordan by the Great Rift Valley (WERNER 1971).

The data reported here contribute nothing new to the first aspect. Transjordan (like Cisjordan) is divided between the mesic Mediterranean zone and the desert Saharo-Arabian zone, seperated by the intervening Irano-Turanian steppe zone which is narrow except in the east (WERNER 1971, 1988). All of the four species reported here are well known to inhabit desert or steppe areas (WERNER 1988), and, as Fig.1 shows, the new records do not diverge from this pattern. (*Acanthodactylus pardalis* is restricted in Cisjordan to the loess soils, which coincide with the Irano-Turanian zone. The two specimens from Transjordan apparently came from Irano-Turanian intrusions into the Mediterranean.

The second aspect, the possible isolating effect of the Rift Valley (Jordan River and 'Arava Valley), also gains little from the new data: *Cyrtodactylus scaber* is known to be spreading in the wake of man; *Bunopus blanfordii* and *Coluber elegantissimus* are Arabian species, well-documented from the Israeli side of the 'Arava Valley and not extending further west. But the case of *Acanthodactylus pardalis* is interesting. The Cisjordanian population is confined to loess soils in the Negev, and is disjunct from the Egyptian (African) population, the species not occurring in Sinai (WERNER 1982). Nevertheless the two are considered to be consubspecific (SALVADOR 1982, ARNOLD 1983). More material would enable an evaluation to be

*) "30 km" in the HUJ-R catalogue and "36 km" in HAAS (1943): conceivably these represent aerial and road distances, respectively.

made of the relative similarity or difference of the still further disjunct Transjordanian population. So far, the general pattern appears to be that the herpetofaunas of Cis-and Transjordan differ more in the south (desert) than in the north (Mediterranean zone) (WERNER 1971). It would also be interesting to examine the potential, but presumably even smaller, isolating effect of the Yarmouk River between northern Transjordan and the Golan Plateau, but the data are not yet sufficient (SIVAN & WERNER in press).

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