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KURZE MITTEILUNG / SHORT NOTE

Record of *Pristurus minimus* ARNOLD, 1977 (Reptilia: Sauria: Gekkonidae) from the United Arab Emirates

Nachweis von *Pristurus minimus* ARNOLD, 1977 (Reptilia: Sauria: Gekkonidae) aus den Vereinigten Arabischen Emiraten

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ABSTRACT: The record of *Pristurus minimus* from Khor Fakkan (United Arab Emirates) leads to a considerable range extension of this species which formerly was believed to be a characteristic faunal element of the Jiddat-al-Harasis area in Oman. The zoogeographical meaning of the new record is discussed, and some morphological and ecological data are given.

KURZFASSUNG: Der Nachweis von *Pristurus minimus* aus Khor Fakkan (Vereinigte Arabische Emirate) führt zu einer erheblichen Arealerweiterung dieser Art, die vorher für ein charakteristisches Faunenelement der Jiddat-al-Harasis-Region im Oman gehalten worden war. Die zoogeographische Bedeutung des Befundes wird erörtert, des weiteren werden einige morphologische und ökologische Angaben gemacht.

KEYWORDS: Gekkonidae, *Pristurus*, *Pristurus minimus*, United Arab Emirates, new record

ARNOLD (1977: 93) described *Pristurus minimus* on the basis of 17 specimens originating from the Jazir Coast (approx. 18.30 N, 56.30 E: type locality), the northern end of Masirah Island, and from between Bai and Salalah, Oman. Within the genus, he assigned his new species to the *P. carteri* group, consisting of *minimus, simonettai, carteri, phillipsii* and *crucifer*. The same author (ARNOLD 1980: 287) added Thamarit, Dhofar (Southern Oman) to the known localities and compared the chorological pattern of this species with that of *Uromastyx thomasi* and *Acanthodactylus masirae*. Six years later ARNOLD (1986 b: 368) gave a redefinition of the *P. carteri* group, with a completely new content, viz. *carteri, collaris* (ranked to species level) and two newly described species: *saada* and *ornithocephalus*. He did not refer to his reasons for eliminating *minimus, simonettai, phillipsii* and *crucifer* from the *carteri* group. The simultaneously published checklist for the Arabian lizard fauna (ARNOLD 1986 b: 421) listed *P. minimus* for "Southern and central Oman (Dhofar to the Wahiba Sands)" (see also GALLAGHER & ARNOLD 1988). As to the zoogeographical aspect, ARNOLD (1987: 253) considers *P. minimus*

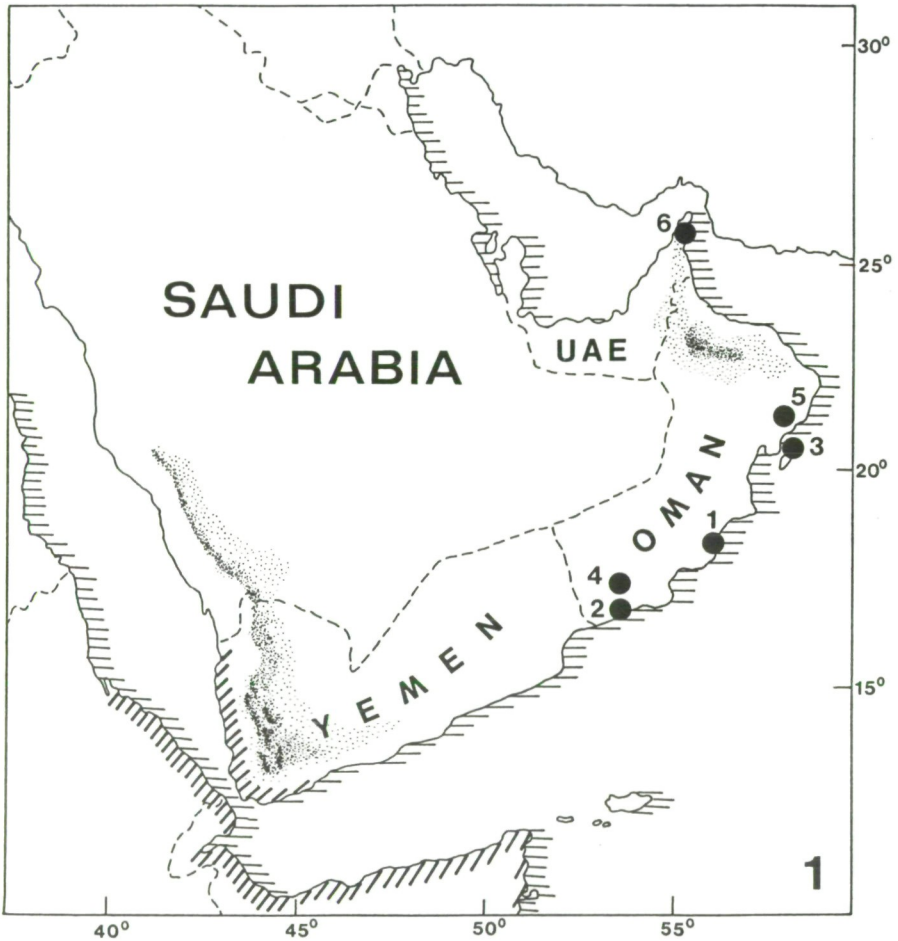

Fig. 1: Known distribution of *Pristurus minimus*. 1- Jazir Coast (type locality: ARNOLD 1977: 93); 2- between Bai (=Bawi) and Salalah (ARNOLD op. cit.); 3- Northern end of Masirah Island (ARNOLD op. cit.); 4- Thamarit (ARNOLD 1980: 287); 5- Wahiba sands (ARNOLD 1986 b: 421); 6- Khor Fakkan (this paper); hatched area- distribution of *Pristurus crucifer* (according to LOVERIDGE 1947: 81; ARNOLD 1986 b: 421; FRITZ & SCHÜTTE 1987: 48).

Abb. 1: Die bekannte Verbreitung von *Pristurus minimus*. 1- Jazir-Küste (Terra typica: ARNOLD 1977: 93); 2- zwischen Bai (=Bawi) und Salalah (ARNOLD op. cit.); 3- Nordspitze der Insel Masirah (ARNOLD op. cit.); 4- Thamarit (ARNOLD 1980: 287); 5- Wahiba Sande (ARNOLD 1986 b: 421); 6- Khor Fakkan (diese Arbeit); schraffiert- Verbreitung von *Pristurus crucifer* (nach LOVERIDGE 1947: 81; ARNOLD 1986 b: 421; FRITZ & SCHÜTTE 1987: 48).

Figs. 2 & 3: The Khor Fakkan female of *Pristurus minimus* with throat and tail display.

Abb. 2 & 3: Das *Pristurus minimus*-Weibchen von Khor Fakkan in Imponierhaltung (vorgewölbte Kehle, nach oben gekrümmter Schwanz).

together with *P. carteri, U. thomasi* and *A. masirae* (see above) as characteristic elements of the "Giddat (Jiddat)-al-Harasis-area"; the three last named species would have their closest systematic relationships to the southern mountain regions (Yemen), the Jiddat-al-Harasis area being the most effective zoogeographic barrier.

In the light of these informations the discovery of an adult female of *Pristurus minimus* in the United Arab Emirates is of considerable interest. It was collected near Khor Fakkan by R. LEPTIEN, 10.V.1990. The gecko was active during day, occurring in direct syntopy with *P. rupestris*. The biotope was a stony slope with sparsely dispersed *Acacia* trees between boulders, where also *P. celerrimus* and *Bunopus spatalurus hajarensis* were found. The *P. minimus* specimen is deposited in the Alexander Koenig Zoological Research Institute and Museum, Bonn, registered as ZFMK 51644. The record is not only remarkable as the first one for UAE, but also for the entire montane region of northern Oman, because Khor Fakkan (north of Fujairah) geographically lies in the northwesternmost foothills of the Oman Mountains. (fig. 1).

If the effectiveness of the Jiddat-al-Harasis area as a zoogeographical barrier is accepted, its effect should be even intensified through the Oman Mountains, at least for those taxa which according to our present knowledge are restricted to its northern and northwestern margin. As ARNOLD (1972, 1987: 253) points out, the affinities of some of the reptile species characteristic for the Oman Mountains are northwards. *P. minimus* in Khor Fakkan, however, has clearly southern relationships to its conspecifics in the Jiddat-al-Harasis area, and the species as a whole is obviously the closest relative of *P. crucifer* in SW Arabia and NE Africa (fig. 1). Because of this chorological situation the taxonomic identity of the Khor Fakkan and Jiddat-al-Harasis populations needs to be checked. It cannot, however, be done now, because only one voucher specimen of the former is available.

The osteological diagnostic characters of *P. minimus* (ARNOLD 1977: 93) have of course not been evaluated for the Emirates population because only one specimen is available. Its external morphological features, however, agree relatively well with ARNOLD's (op. cit.) description of the type series. With a head & body-length of 24.8 mm ZFMK 51644 is slightly larger than the biggest female of the type series (23.1 mm), but does not approach the biggest male (25.3 mm). The tail is broken into two parts, measuring together 45.5

mm. Thus, it is markedly longer than in the types. The tail length is nearly twice the snout-vent distance instead of "up to about 1½ times" (ARNOLD op. cit.). There are ca. 96 dorsal scales around midbody (vs. about 103 in the type). 22 lamellae under the fourth toe (vs. 18-23), 2 scales between the supranasals, 6/6 supra- and 5/5 sublabials, and 24 interorbitals agree well with the values given in the original description. Also the nasal configuration and the colour pattern do not show any peculiarity. The palpebral fold, however, has well developed, pointed and projecting scales, which are explicitly absent in the type series, but are typical for the closely related species *P. crucifer* (ARNOLD op. cit.).

Because it was possible to observe the Khor Fakkan female in a terrarium for some time, it was noted that the pupil was not actually round, but vertically elliptical, as characteristic for the species of the *P. carteri* group (content according to the second concept by ARNOLD, 1986 a: fig. 11). Furthermore it could be observed that there is a marked physiological colour change, all colours becoming much darker and more contrasting when exposed to sunlight. In contrast to other small lizards, in this case *P. rupestris* from the same locality, the Khor Fakkan female reacted by protruding the - transversely barred - dark gular region and by keeping the tail straight with only the tip a little bit curled (fig. 2).

The information obtained from the single specimen collected in the Emirates is of course unsufficient as to decide the taxonomic status of this northern population. It shows, however, some differences not yet observed in the type material from the Jiddat-al-Harasis area. The obvious differences are: (1) greater snout-vent length in females, (2) longer tail, and (3) markedly enlarged, projecting scales at the upper side of the palpebral ring. It will be interesting to see whether further material from the Emirates and from the northern Oman will corroborate these differences. The vertically elliptic pupil, occurring also in other day geckos (e. g. *Phelsuma*: MERTENS 1972 a: 45, 1972 b: 187), and which was not recorded before for *P. minimus*, could elucidate the ecological note by ARNOLD (1977: 96) that "BM 1975.2086-87 were found on Masirah Island at night..."! (see also GALLAGHER & ARNOLD 1988: 407). The differences of pupil shape in the species groups within *Pristurus* could well play an important role in the niche segregation and radiation in this obviously intensively evolving group of lizards.

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