On the herpetofauna of the Province of Tabuk, northwest Saudi Arabia (Amphibia, Reptilia)

Zur Herpetofauna der Provinz Tabuk, nordwestliches Saudi-Arabien (Amphibia, Reptilia)

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KURZFASSUNG

Die vorliegende Arbeit berichtet über die in der saudi-arabischen Provinz Tabuk festgestellten Lurche und Kriechtiere, insgesamt eine Amphibienart und 33 Reptilienarten aus 12 Familien (Cheloniidae, Gekkonidae, Agamidae, Chamaeleonidae, Lacertidae, Scincidae, Varanidae, Trogonophidae, Boidae, Colubridae, Viperidae and Elapidae). Drei Arten (*Hemidactylus mendiae, Pseudotrapelus aqabensis, Phoenicolacerta* cf. *kulzeri*) werden erstmals für die saudi-arabische Fauna genannt. Zusätzlich erweitern die Verbreitungsdaten für die Provinz Tabuk die bekannten Verbreitungen einiger Arten in Arabien.

ABSTRACT

A total of 34 species of amphibians and reptiles are reported from Tabuk Province, Saudi Arabia. They include one species of amphibian and 33 reptiles belonging to 12 families (Cheloniidae, Gekkonidae, Agamidae, Chamaeleonidae, Lacertidae, Scincidae, Varanidae, Trogonophidae, Boidae, Colubridae, Viperidae and Elapidae). Three species of reptiles are new to the herpetofauna of Saudi Arabia: *Hemidactylus mendiae*, *Pseudotrapelus aqabensis* and *Phoenicolacerta kulzeri* ssp.. Additional distributional data for the reptiles of the Province of Tabuk expand the known distribution for several Arabian species.

KEYWORDS

Amphibia, Reptilia: Pseudotrapelus aqabensis, Hemidactylus mendiae, Phoenicolacerta kulzeri ssp.; herpetofauna, chorology, distribution, new country records, Province of Tabuk, Saudi Arabia

INTRODUCTION

The Saudi Arabian Province of Tabuk, located in the northwesternmost part of the country, borders southern Jordan and extends along the Gulf of Aqaba and the Red Sea, with a total area of 108,000 km². Different types of habitats are found within Tabuk, including coastal mountains (maximum altitude 1800 m) with moderate coastal plains east of the Red Sea, steppes in the eastern and central area, and an extension of the Nofood sand desert towards the southeast (Fig. 1). The black lava desert ('Hara') lies in the central south between the Red Sea mountains and the inner mountains.

The reptiles of central, southern and eastern Saudi Arabia were extensively studied in the past (HAAS 1957; HAAS & WERNER 1969; ARNOLD 1986; AL-SADOON 1988; AL-SADOON et al. 1991; SCHÄTTI & GASPERETTI

1994), whereas little is known about the herptofauna of the Province of Tabuk. HAAS (1957) reported some records between Tabuk and Hadj (= Hadaj), and near Mudawarh. FARAG & BANAJA (1980) studied the herpetofauna of western Saudi Arabia, with records from Duba in the north and as far as Umluj to the south. To the east of the study area, AL-SHAMMARI (2012) mentioned 16 herpetological species from the Province of Ha'il, and recently, MASOOD (2012) and MASOOD & ASIRY (2012) contributed to the herpetofauna of the Asir region. The latter two contributions comprise obvious misidentifications and erroneous records that call for amendments.

In this report, field observations and additional locality records for 34 species of reptiles and amphibians are presented.

MATERIALS AND METHODS

Thirty four species of amphibians and reptiles were either collected or observed during the study period (2011-2013). Collected specimens were deposited at Tabuk University, Department of Biology, Tabuk Zoological Collection (TZC). Field trips were carried out and covered the main habitats with a total of 27 localities (Table 1).

TAXONOMIC ACCOUNT

Bufo arabicus HEYDEN, 1827

Material examined: TZC050, Maqna, 27.6. 2013. TZC051-52, Al Disah, 29.6.2013. Observed: Tayeb Ism, 28.6.2013. Taima (Al Gharb farms), 30.6. 2013.

This toad was collected from three sites with permanent water bodies located within mountainous areas. Collected previously from Midyan, Jabal Dabbagh Dar Al Nasara and Wadi Garagir (BALLETTO et al. 1985) in the vicinity of the Province of Tabuk. Tayeb Ism represents the northwesternmost record of *B. arabicus* in the Arabian Peninsula. *Eretmochelys imbricata* (LINNAEUS, 1766)

Material examined: A single specimen at Al Owindyeah Island, June 2011.

Few records of nesting sites and animals were reported in the northern part of the Red Sea (GASPERETTI et al. 1993).

Bunopus tuberculatus BLANFORD, 1874

Material examined: TZC067, Tabuk, 1.7.2013.

A common species reported from several localities in Saudi Arabia (ARNOLD 1986).

 Table 1: Localities in the Province of Tabuk, Saudi Arabia, covered by the present study.

 Tab 1: Fundorte der vorliegenden Studie in der Provinz Tabuk, Saudi Arabien.

No. in Fig. 1	Locality / Fundort	Coordinates / Koordinaten	
1	Al Assafeyah	27°49'90" N	38°40'55" E
2	Al Beda'a	28°26'28'' N	34°49'26" E
3	Al Disah	27°38'40" N	36°31'31" E
4	Al Konah	29°01'36" N	35°32'44'' E
5	Al Owindyeah island	26°44'26'' N	36°02.35" E
6	Al Qatar	28°52'15" N	35°30'25" E
7	Al Wajah	26°14'20'' N	36°28'53'' E
8	Al Zetah	28°51'26" N	35°35'30" E
9	Algelebah	28°22'48'' N	37°41'39" E
10	Bajdah	28°20'58'' N	35°48'14'' E
11	Between Al Wajh and Um Luj	25°34'35" N	37°00'58'' E
12	Geal	28°07'25" N	35°01'25" E
13	Harat Al Raha	27°49'58" N	36°33'05" E
14	Harat Al Rahah (Ain Al Akhdhar)	27°38'16" N	36°49'03'' E
15	Harat Al Rahah(Wadi Rashdan)	27°49'58" N	36°33'05" E
16	Hisma	29°09'12" N	35°24'03'' E
17	Magna	28°23'56" N	34°44'47'' E
18	Qala'at Al Azlam	27°02'14" N	36°01'06" E
19	Qalat Al Mowaileh	27°40'57" N	35°28'36'' E
20	Sharma	27°58'21'' N	35°13'14'' E
21	Tabuk	28°23'27'' N	36°34'20" E
22	Taima (Al Gharb farms)	27°38'10" N	38°32'49'' E
23	Taima (AlnofoodAlkabeer)	27°25'26'' N	39°03'26'' E
24	Tayeb Ism	28°33'37" N	34°48'53" E
25	Um Luj-Al Gabaya farm	25°54'37" N	37°16'17'' E
26	Wadi Al Hemd	25°25'55" N	36°51'47" E
27	Wadi Al Meyah	26°08'06'' N	36°33'20" E



 Fig. 1: Outline map of the Arabian Peninsula showing the Saudi Arabian Province of Tabuk and the localities studied. Numbering of localities corresponds to the numbering in Table 1.
 Abb. 1: Umrißkarte der Arabischen Halbinsel mit der saudi-arabischen Provinz Tabuk und den Untersuchungsorten. Die Fundortnumerierung entspricht der in Tab. 1.

Cyrtopodion scabrum (HEYDEN, 1827) (Fig. 2A)

Material examined: TZC031, Umluj-Al Gabaya farm, 25.6.2013. TZC055, Al Disah, 29.6.2013.

This is a widespread species in northwestern, northern and eastern Saudi Arabia. One specimen was collected from a store room in a farm and the second from a rocky area at Al Disah. FARAG & BANAJA (1980) indicated other records around Mecca and Al Madina.

Hemidactylus flaviviridis RÜPPELL, 1835 (Fig. 2B)

Material examined: TZC025, between Al Wajh and Umluj, 25.6.2013. TZC026-30 and 39, Umluj - Al Gabaya farms, 25.6.2013. TZC038, Qala'at Al Azlam, 25.6.2013. TZC042, Wadi Al Meyah, 26.6.2013.

This is a common gecko along the coastal region of the Red Sea; its known range reaches as far as the Al Wajh area. It was found in palm plantations and old castles. Previously collected from Jeddah and Yanba' (FARAG & BANAJA 1980). SCHATTI & GASPERETTI (1994) pointed out that records of *Tarentola muritanica* [sic] and *Tarentola annularis* (GEOFFROY DE ST-HILAIRE, 1827) by FARAG & BANAJA (1980) referred to *H. flaviviridis*. Similarly, MASOOD & ASIRY (2012) reported *T. annularis* and *T. mauritanica* (LINNAEUS, 1758) from the Asir region. Considering the known distribution range of both aforementioned species (see



Fig. 2: Geckos from the Province of Tabuk, Saudi Arabia. Abb. 2: Geckos der Provinz Tabuk, Saudi-Arabien.

A - Cyrtopodion scabrum (HEYDEN, 1827), B - Hemidactylus flaviviridis RÜPPELL, 1835, C - Hemidactylus mendiae BAHA EL DIN, 2005, D - Pristurus rupestris BLANFORD, 1874, E - Ptyodactylus hasselquistii (DONNDORFF, 1798), F - Stenodactylus doriae (BLANFORD, 1874).

e.g., SCHLEICH et al. 1996), these *Tarentola* records must be doubted as well. The confusion may be due to the similarities in the color pattern of *H. flaviviridis* and *T. mauritanica*.

Hemidactylus mendiae BAHA EL DIN, 2005 (Fig. 2C)

Material examined: TZC024, Al Qatar, 23.6. 2013. A single specimen was collected from a humid sand stone canyon with relatively dense vegetation of *Adiantum capillusveneris* on the walls and scattered wild fig trees, *Ficus pseudo-sycomorus*. Such habitat is similar to that in Wadi Rum of Jordan, where this species was reported (AMR et al. 2007). This species was originally described from the mountain range of southern Sinai (BAHA EL DIN 2005).

Hemidactylus turcicus (LINNAEUS, 1758) was reported from Jiddah (FARAG & BANAJA 1980), Taif and the Saudi Arabian islands in the Red Sea (SCHÄTTI & GASPE-RETTI 1994). The taxonomic status of *H. turcicus* was revised based on molecular evidence by MORAVEC et al. (2011) who concluded that *H. turcicus* is confined to countries of southern Europe, overlooking its wide Trans-Mediterranean distribution. Also, exceptional genetic differentiation within "*H. turcicus*-like" forms from Yemen was reported. Indeed, the Arabian populations of "*H. turcicus*" require further investigation.

Pristurus rupestris BLANFORD, 1874 (Fig. 2D)

Observed: Harat Al Hara, 22.6.2013.

This is a common species in rocky terrains. Several records from Saudi Arabia were indicated in ARNOLD (1986).

Ptyodactylus hasselquistii (DONNDORFF, 1798) (Fig. 2E)

Material examined: TZC022, On the road to Al Hisma, 22.6.2013. TZC041, Al Wajah, 26.6.2013. TZC045-46, Qalat Al Mowaileh, 27.6.2013. TZC065, Bajdah, 3.7.2013. Observed: Al Disah, 29.6.2013. Al Konah, 22.6.2013. Halat Ammar, 27.6.2013. Tayeb ism, 28.6.2013. Harat Al Rahah (Ain Alakhdhar), 30.6.2013. Taima (Al Gharb farms), 30.6.2013.

This common species inhabits rocky terrains along the mountains of the inland and coastal areas. It was collected from Jiddah and Taif (FARAG & BANAJA 1980) and as far as Western Yemen (SCHÄTTI & GASPERETTI 1994).

NAZAROV et al. (2013) described three new species of the genus *Ptyodactylus* from Oman and southern Jordan. *Ptyodactylus ananjevae* NAZAROV, MELNIKOV & MELNI-KOVA, 2013, was described from the vicinity of Al Mudawarah, near the northern borders of the Province of Tabuk. During this study, no records of the newly described species were collected; however, its occurrence in northern Tabuk is highly probable.

Stenodactylus doriae (BLANFORD, 1874) (Fig. 2F)

Material examined: TZC021, Al Zetah, March 2013. TZC032-35, Wadi Al Hemdh, 25.6.2013.

This is a common species with a wide distribution range in Arabia (ARNOLD 1986), inhabiting sandy areas.

Pseudotrapelus aqabensis Melnikov, Nazarov, Ananjeva & Disi, 2012

Material examined: TZC009, Al Zetah, November, 2012. TZC047, Al Beda'a, 27.6.2013.

This newly described species was collected from two localities; one inland close to Al Zetah and the second from Al Beda'a. Both localities are characterized by large rocky boulders. *Pseudotrapelus aqabensis* differs from *Pseudotrapelus sinaitus* (HEY-DEN, 1827) in having four well developed separated preanal pores in males and the third toe much longer than the fourth (MEL-NIKOV et al. 2012).

This species is known only from its type locality in Aqaba, Jordan. The present record expands the distribution range of *P. aqabensis* further south into northwestern Saudi Arabia.

Pseudotrapelus sinaitus (HEYDEN, 1827) (Fig. 3A)

Material examined: TZC006, Hisma, April 2012. TZC056-57, Harat Al Rahah, 30.6.2013. Observed: Taima, 2.7.2013.

The presence of this species may represent penetration from Jordan's basalt desert that reaches northern Tabuk (MELNIKOV et al. 2012). HAAS (1957) collected this species from the Al Jouf Mountains and Aja Mountain in Hail. A female from Taima had three preanal pores. See also under *Pseudotrapelus agabensis* above.

The diagnostic characters described under *P. aqabensis* were also observed by ANDERSON (1901) among the Arabian populations of *P. sinaitus* while FRITZ & SCHÜTTE (1988) noted that the Yemenite specimens have fewer anal pores. FARAG & BANAJA (1980) reported on specimens of *P. sinaitus* from Yanbu and down south to Baljarshi. Further studies on the taxonomic status of *P. sinaitus* in southwest Arabia should be undertaken.



 Fig. 3: Agamid lizards from the Province of Tabuk, Saudi Arabia.
 Abb. 3: Agamen aus der Provinz Tabuk, Saudi-Arabien.
 A - Pseudotrapelus sinaitus (HEYDEN, 1827), B - Stellagama stellio brachydactyla (HAAS, 1951), C - Trapelus flavimaculatus RÜPPELL, 1835, D - Uromastyx aegyptia microlepis ARNOLD, 1980.

Stellagama stellio brachydactyla (HAAS, 1951) (Fig. 3B)

Material examined: TZC053-54, Al Disah, 29.6.2013. TZC063, Bajdah, 3.7.2013. Observed: Al Konah, 22.6.2013. Hisma, 1.6.2013. Harat Al Rahah (Ain Al Akhdhar), 30.6.2013.

The genus *Laudakia* was revised by BAIG et al. (2012) based on morphological characters. These authors placed the former *Laudakia stellio* into the new genus *Stellagama*. It seems that Al Disha is the most southern limit for its distribution along the western coasts of Saudi Arabia since it was not reported by FARAG & BANAJA (1980) and SCHÄTTI & GASPERETTI (1994) farther south.

Trapelus flavimaculatus RÜPPELL, 1835 (Fig. 3C)

Material examined: TZC025, between Al Wajh and Umluj, 25.6.2013.

One male specimen was caught along the road between Al Wajh and Umluj. *Trapelus flavimaculatus* was reported previously by FARAG & BANAJA (1980) from Umluj and further south to Yanbu. Records of the very similar Egyptian and Israeli species *Trapelus savignii* (DUMÉRIL & BIBRON, 1837) by FARAG & BANAJA (1980) are tentatively doubted and require confirmation. *Trapelus flavimaculatus* is distributed in Oman, Saudi Arabia, United Arab Emirates and Yemen (SINDACO & JEREM-CENKO 2008).

Uromastyx aegyptia microlepis ARNOLD, 1980 (Fig. 3D)

Observed: Harat Al Rahah (Wadi Rashdan), 30.6.2013. Taima (Al Assafeyah), 2.7.2013. Shrama, June 2011.

This is a common species east of Wadi Sawawin in the Jebel as-Sinfa region of



Fig. 8: Chamaeleo chamaeleon orientalis PARKER, 1938 from Harat Al Rahah, Province of Tabuk, Saudi Arabia. Abb. 8: Chamaeleo chamaeleon orientalis PARKER, 1938 von Harat Al Rahah, Provinz Tabuk, Saudi Arabien.

Saudi Arabia (WILMS & BÖHME 2007). It is found in deserts and semi-deserts of Arabia, Jordan, Syria, Iraq and reaching east to coastal Iran.

Chamaeleo chamaeleon orientalis PARKER, 1938 (Fig. 4)

Material examined: TZC001, Bajdah, 2012. Observed: Harat Al Rahah (Ain Al Akhdhar), 30.6.2013.

HILLENIUS & GASPERETTI (1984) and SCHÄTTI & GASPERETTI (1994) reported on the presence of *Chamaeleo chamaeleon orientalis* from near Haql in the extreme northwest Saudi Arabia and the Harrat (Hara, lava desert) south of Mekkah. ABU BAKER et al. (2004) reported *Chamaeleo chamaeleon* ssp. from Wadi Rum in southern Jordan. The present record may be representative of a relict population which deserves



Fig. 5: *Phoenicolacerta kulzeri* ssp. from Al Konah, Province of Tabuk, Saudi Arabia. A - C – Ventral, lateral and dorsal views of the head; D – Ventral aspect of thighs showing the arrangement of femoral pores.
Abb. 5: *Phoenicolacerta kulzeri* ssp. aus Al Konah, Provinz Tabuk, Saudi-Arabien. A - C – Ventral-, Lateral- und Dorsalansicht des Kopfes; D – Die Ventralansicht der Oberschenkel zeigt die Anordnung der Femoralporen.



Fig. 6: *Chalcides* cf. *ocellatus* (FORSKÅL, 1775) from Maqna (Magna), Province of Tabuk, Saudi Arabia. Abb. 6: *Chalcides* cf. *ocellatus* (FORSKÅL, 1775) aus Maqna, (Magna), Provinz Tabuk, Saudi-Arabien.

detailed examination with regard to its phylogenetic affinities.

Acanthodactylus boskianus (DAUDIN, 1802)

Observed: Harat Al Rahah (Ain Alakhdhar), 30.6.2013.

This is a common species known from many localities across Saudi Arabia (AR-NOLD 1986).

Acanthodactylus opheodurus ARNOLD, 1980

Material examined: TZC010 and 017, Al Zetah, November 2012. TZC043, Wadi Al Meyah, 26.6.2013. TZC054 and 066, Bajdah, 3.7.2013. Observed: Al Disah, 29.6.2013.

A common species in mixed sandy and gravelly areas, with a wide distribution across the Arabian Peninsula.

Acanthodactylus schmidti HAAS, 1957

Material examined: TZC015-16, Al Zetah, November 2012. Observed: Harat Al Rahah (Ain Alakhdhar), 30.6.2013. Hisma, 1.6.2013. Taima (Al Nofood Alkabeer), 4.7.2013.

This sand inhabiting species is quite common in Saudi Arabia (ARNOLD 1986). Collected from north Tabuk (HAAS 1957).

Mesalina brevirostris BLANFORD, 1874

Material examined: TZC040, Umluj (Al Gabaya farm), 25.6.2013.

This species prefers gravelly areas with rocks. Collected from near Al Wajh (FARAG & BANAJA 1980).

Ophisops elegans Ménétries, 1832

Observed: Hisma, 13.3.2011.

A common species inhabiting various types of habitats (ARNOLD 1986).

Phoenicolacerta kulzeri ssp. (Fig. 5)

Material examined: TZC019 and 023, Al Konah, 22.6.2013.

Two juveniles were collected from Al Konah. The collection site is a deep, wide gorge in a sand stone mountain with plenty of wild fig trees, *Ficus pseudo-sycomorus*, and with little vegetation along the walls such as *Podonosma orientalis*.

Live animals exhibited blue tails and black marking across the eyes. The dosal scales are light brown with scattered black spots. Ventral scales arranged in 26 longitudinal and six transversal rows; seven upper labials, the sixth being largest and in touch with the eye. The specimens are very similar to the subspecies of *Phoenicolacerta kulzeri* recently described by MODRÝ et al. (2013) from Wadi Rum (Wadi Ramm) of Jordan. The lizards are likely to belong to a relict population, isolated from the *kulzeri* clade of southern Jordan. BISCHOFF (2001) considered the Jordanian populations as *La*-



Fig. 7: *Trachylepis brevicollis* (WIEGMANN, 1837) from Qala'at Al Azlam, Province of Tabuk, Saudi Arabia. Abb 7: *Trachylepis brevicollis* (WIEGMANN, 1837) aus Qala'at Al Azlam, Provinz Tabuk, Saudi-Arabien.

certa kulzeri petraea BISCHOFF & MÜLLER, 1999. The southernmost published record of *P. k. petraea* is from the Petra region (BISCHOFF & MÜLLER 1999), however, both Petra and Wadi Rum populations are geographically well isolated. The present record extends the distribution range of this lacertid to northern Arabia.

Chalcides cf. ocellatus (FORSKÅL, 1775) (Fig. 6)

Material examined: TZC003, Magna, April 2012. TZC048-49, Magna, 27.6.2013.

Collected specimens from Magna do not exhibit the typical *ocellatus* color pattern. Proportions match those given by ARNOLD (1986) and LEVITON et al. (1992) who specified the distance between the snout tip and ear opening to be longer than half the distance between snout tip and insertion of forelimb. Ear opening conspicuous; nostril in contact with rostral, pierced just above suture between rostrum and the first upper labial; fifth upper labial in contact with eye. Dorsal scales smooth, 24-25 scales around midbody, limbs with 5 fingers and toes.



Fig. 8: Scincus mitranus ANDERSON, 1871, from Taima (Al Nofood Al Kabeer), Province of Tabuk, Saudi Arabia; A - dorsal aspect; B and C - Lateral and dorsal views of the head showing the scalation.
 Abb. 8: Scincus mitranus ANDERSON, 1871, aus Taima (Al Nofood Al Kabeer), Provinz Tabuk, Saudi-Arabien; A - Dorsalansicht; B and C - Lateral and Dorsalansicht des Kopfes mit Details der Pholidose.

Trachylepis brevicollis (WIEGMANN, 1837) (Fig. 7)

Material examined: TZC027, Qala'at Al Azlam, 25.6.2013.

One specimen was collected from a palm garden near Qala'at Al Azlam. Dorsal scales are characterized by the presence of two keels per scale. The record of FARAG & BANAJA (1980) for *Mabuya quinquetaeniata* (LICHTENSTEIN, 1823) from date gardens north of Um luj certainly refers to *T. brevicollis*. SCHÄTTI & GASPERETTI (1994) quoted other records from southwest Arabia. This species was also reported from the area of Riyadh (AL-SADOON 1988).

Scincus mitranus Anderson, 1871 (Fig. 8)

Material examined: TZC061, Taima (Al Nofood Al Kabeer), 4.7.2013.

This specimen collected from a sandy area near Taima exhibited a single prefrontal and six supraoculars. Markings on the sides were very faint, covering only one or two scales, thereby resembling the description of *Scincus philbyi* SCHMIDT, 1941, which is considered a synonym of *S. mitranus*.

Scincus scincus meccensis (WIEGMANN, 1837)

Material examined: TZC011, Hisma, April 2011. TZC062, Taima (Al Nofood Al Kabeer), 4.7. 2013.

This typical sand inhabiting species is common in the Hisma area which represents the southern extension of the Jordan Wadi Rum with its abounding sand dunes (ABU BAKER et al. 2004). This species was reported from near Al Madinah (SCHÄTTI & GASPE-RETTI 1994), with its range extending across northwest and west Saudi Arabia (ARNOLD 1986).

Varanus griseus (DAUDIN, 1803)

Observed: Taima (Al Nofood Alkabeer), 4.7.2013. This common species was collected from several localities in Saudi Arabia, including Abqaiq, Doha Dhalum and Shimal (HAAS 1957), along the eastern escarpment of the Ar-Roba Al-Khali (Rub' al Khali Desert) and from Tihama (SCHÄTTI & GASPERETTI 1994) as well as from Ha'il (AL-SHAMMARI 2012). It prefers open deserts.

Diplometopon zarudnyi NIKOLSKY, 1907

Material examined: TZC060, Taima (Al Gharb farms), 2.7.2013.

This species was previously reported from several localities in Saudi Arabia including Dhahran, Abqaiq, Shimal, Doha Dhalum, and from between Hadj (=Hadaj), and Tabuk (HAAS 1957), near the borders of the Arabian Gulf (ARNOLD 1986) and Ha'il (AL-SHAMMARI 2012).

Eryx jaculus (LINNAEUS, 1758)

Observed: Hisma, 22.6.2013. Taima (Al Nofood Alkabeer), 4.7.2013.

The present record is new to the Tabuk area. GASPERETTI's (1988) distribution map for *E. jaculus* does not include records from northwestern Saudi Arabia.

Rhagerhis moilensis (REUSS, 1834)

Material examined: TZC001, Tadco project, 2011. This diurnal snake exhibits a cobralike posture when alarmed; it is well adapted to desert and arid environments, where it becomes crepuscular during hot seasons. It was collected from Al Mowaileh and Jabal as Sinfa (GASPERETTI 1988).

Psammophis schokari (FORSKÅL, 1775)

Material examined: TZC004, Manqa, April 2012. Observed: Bajdah.

A diurnal and crepuscular species that inhabits extremely dry rocky and stony habitats. Collected previously from several localities in the Province of Tabuk (GASPE-RETTI 1988).

Spalerosophis diadema cliffordi (SCHLEGEL, 1837)

Material examined: TZC005, Hisma, April 2012. TZC044, Wadi Al Meyah, 26.6.2013.

This thermophilous species is common near agricultural areas in Saudi Arabia (GASPERETTI 1988). Collected from Duba, Jabal as Sinfa, Median (FARAG & BANAJA 1980; GASSPERTTI 1988).

Cerastes gasperettii gasperettii LEVITON & ANDERSON, 1967

Material examined: TZC007, Tabuk - Al Madeenah Highway, May 2012. TZC013-14, Al Zetah, April 2011. TZC020, Al Zetah, March 2013. Bajdah. Observed :Taima (Al Nofood Al Khabeer), 4.7. 2013.

WERNER & SIVAN in WERNER et al. (1999) distinguished *C. g. mendelssohni*, the hornless population in Wadi 'Araba from the nominate race, commonly found in eastern and northern Arabia. Collected from near Duba, Median and Jaba Ash Shati (FARAG & BANAJA 1980; GASPERETTI 1988).

Echis coloratus GÜNTHER, 1878

Material examined: TZC012, Al Beda'a, April 2012. Bajdah, 3.7.2013. Harat Al Rahah (Ain Alakhdhar), 30.6.2013. Carpet Vipers are abundant in the steep, dry rocky hillsides of mountains. Collected from near Umluj (FARAG & BANAJA 1980) and several localities in north western Tabuk (GASPERETTI 1988). The specimen from Al Beda'a was found while swallowing a rodent.

Walterinnesia aegyptia LATASTE, 1887

Observed (photographed): Al Qelebah, September 2012.

GASPERETTI (1988) stated that this species is rare or rarely seen in Arabia. It is highly secretive spending most of its time in burrows of mammals or large spiny-tailed lizards (LEVITON et al. 1992). Collected from Jabal as Sinfa near Duba (GASPERETTI 1988).

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