

New data on the Syrian herpetofauna, with a newly-recorded species of snake

by Roberto Sindaco, Gianluca Serra and Michele Menegon

Abstract. New data on Syrian amphibians and reptiles collected between 1990 and 2004 are given. The most important findings are the Elapid snake *Walterinnesia aegyptia*, here reported for the first time from Syria; *Zamenis hohenackeri* and *Vipera xanthina*, previously known only from Mount Hermon; and the very rare and poorly known *Telescopus nigriceps* and *Lytorhynchus kenedyi*. Other species were previously known from only a very few Syrian localities.

Kurzfassung. Es werden neue Daten über syrische Amphibien und Reptilien mitgeteilt, die zwischen 1990 und 2004 gesammelt wurden. Die wichtigsten Funde stellen *Walterinnesia aegyptia* dar, die hier zum ersten Mal aus Syrien gemeldet wird; *Zamenis hohenackeri* und *Vipera xanthina*, die bisher nur vom Mount Hermon bekannt waren, und die sehr seltenen und wenig bekannten Arten *Telescopus nigriceps* und *Lytorhynchus kenedyi*. Für andere Arten waren bisher oft nur Einzelnachweise bekannt.

Key words. Reptiles, Amphibians, *Walterinnesia aegyptia*, *Zamenis hohenackeri*, *Vipera xanthina*, Syria, faunistics.

Introduction

Syria is one of the zoologically least known countries of the Mediterranean, and many species of its herpetofauna have only recently been recorded for the first time (MARTENS & KOCK 1991; MARTENS 1993; BISCHOFF & SCHMIDTLER 1994; MORAVEC & MODRÝ 1994a, 1994b; MORAVEC & BÖHME 1997; MORAVEC 1998). A first checklist of the Syrian herpetofauna was given by DISI & BÖHME (1996), although this attempt to give a comprehensive overview has provoked criticism (MARTENS 1997).

During surveys carried out between 2000 and 2004, one of the authors (G. SERRA) made a small collection of specimens and some clear photographs, which provide interesting new data on Syrian amphibians and reptiles. In this paper we present these data. We also report on a collection made by the senior author in 1990 and a few other observations provided by other workers.

Materials

The bulk of the data is represented by the specimens collected by G. SERRA (GS), now in the collections of the "La Specola" Museum (MZUF), Florence University, Italy; the collection made by R. SINDACO (RS) is preserved in the Museo Civico di Storia Naturale di Carmagnola (Torino, Italy; MCC); other data are represented by photographs taken by G. SERRA and Claudia CORTI (Florence, Italy), filed in the MCC digital archive.

Study area

Materials were collected at the following localities. Coordinates and the names of locations written in brackets are in accordance with the "National Imagery and Mapping Agency's (NIMA) database of foreign geographic feature names" (<http://earth-info.nga.mil/gns/html/>).

Al Talila (34°50'N, 38°50'E): A very old, eroded ridge about 30 km SE of Palmyra, quite low in altitude, but clearly recognisable on the flat horizon of the desert surrounding Palmyra. It is made up of gently rolling and undulating hills. The area has been protected from over-grazing since 1993 and has a good cover of dwarf shrubs, mainly *Haloxilum salicornicum*.

Arak village (34°39'N, 38°34'E): Typical desert village about 40 km NW of Palmyra. It consists of mud-built houses, surrounded by olive, palm and pomegranate orchards irrigated by pumped underground water.

Fir-Cedar Reserve, Slenfe (35°35'N, 36°11'E): A recently established 13.5-km² protected area, the Cedar-Fir reserve encompasses one of the last stands of the fir *Abies cilicica*, and especially of the Cedar *Cedrus libani*, in Syria. It is located in the northern part of the coastal mountains of western Syria, between 900 and 1562 metres, very close to the Turkish border.

Gattar: A cliff about 20 km NW of Palmyra.

Halili Jezel (a site within Jebel Abu Rigimin): A sheer calcareous wall about 50 km N of Palmyra.

Hamad desert: A flat and barren plateau about 100 km S of Palmyra, the northern edge of the huge Hamad desert extending through Iraq, Saudi Arabia and Jordan.

Jebel Abu Rigimin (= Jabal Abu Rujmayn, 34°52'N, 38°20'E): Undulating barren highlands forming a large massif about 50-80 km NNW of Palmyra, covered with dwarf shrubs and cut by sheer calcareous walls. At the base of these walls there are accumulations of boulders and rocks.

Jebel Bilas (= Djebel Bilaas, 34°56'N, 37°37'E): Undulating semi-barren highlands about 80 km NW of Palmyra, covered with dwarf shrubs and with scattered *Pistacia atlantica* trees.

Jebel Tarr (= Jebel Tar enn Noueisser, 34°36'N, 38°15'E): About 10 km N of Palmyra.

Mayuf (a site within the Wadi Abiad, about 40 km N of Palmyra): A sheer rocky wall.

Palmyra (34°33'N, 38°17'E): A village adjacent to the world-renowned hellenistic ruins and to a large millenary oasis cultivated with palms, pomegranates and olive trees, surrounded by a flat rocky desert.

Rasafa (35°57'N, 39°01'E): S of Raqqah, NE Syria.

Sed Wadi Abiad (a site within Wadi Abiad, about 15 km N of Palmyra): An artificial reservoir surrounded by a large rocky wall on one side and reedbeds on the other.

Tell Barri (37°02'N, 41°14'E): S of Qamishli, NE Syria.

Wadi Abiad (= Ouadi el Abiad, 34°38'N, 38°11'E): A dry "wadi" riverbed contoured on one side by a hill (Jebel Abiad) with vertical walls; it is a very rocky area with scattered dwarf shrubs (*Salsola* spp).

Species list

Salamandra infraimmaculata (Martens, 1885)

Photographic record MCC-ph-00501, Fir-Cedar Reserve, IV.2004, photo Gwendolijn J. VAN BOVEN.

Testudo graeca terrestris Forskål, 1775

Photographic record MCC-ph-00502, Palmyrean Al Badia, between 1996 and 1999, photo Mahmud ABDALLAH. The species was also observed at the Fir-Cedar Reserve, IV.2004, GS obs.



Fig. 1. *Acanthodactylus grandis* (MZUF 40052).



Fig. 2. *Ptyodactylus puiseuxi* (photographic record MCC-ph-00504).

***Asaccus elisae* (F. Werner, 1895)**

Photographic record MCC-ph-00500, Rasafa, spring 2004, photo C. CORTI.

***Bunopus tuberculatus* Blanford, 1874**

MZUF 40039: Palmyra area, between 2000 and 2003, GS leg.; Photographic record MCC-ph-00503, Al Talila Reserve, VII.2000, photo GS. – We know of only three other Syrian localities for this gecko, all in the eastern part of the country (ANGEL 1936, SCHMIDT 1939, BISCHOFF & SCHMIDTLER 1994; see also HAAS 1951 and ŠČERBAK & GOLUBEV 1996).

***Hemidactylus turcicus turcicus* (Linnaeus, 1758)**

MZUF 40040: Palmyra area, 2000-2003, GS leg.; MCC R386-87: Palmyra, VIII.1990, RS leg. – Palmyra seems to be the easternmost (and apparently isolated) locality of this Mediterranean species in the Levant.

***Ptyodactylus* cf. *guttatus* Heyden, 1827**

MCC R372-374: Palmyra, VIII.1990, RS leg. – Cited from Palmyra by ANGEL (1936) as *Ptyodactylus lobatus*, by SINDACO (1991) and BISCHOFF & SCHMIDTLER (1994) as *P. guttatus*, and as *Ptyodactylus* “undetermined” by WERNER & SIVAN (1994). The taxonomic status of the *Ptyodactylus guttatus*-like geckos of the Syrian desert is still unresolved.

***Ptyodactylus puiseuxi* Boutan, 1893**

Photographic record MCC-ph-00504-5, Jebel Tarr, X.2000, and on the rocky hills around the Palmyra ruins, spring 2001, photo GS.

***Stenodactylus grandiceps* Haas, 1952**

MZUF 40041-42: Palmyra area, 2000-2003, GS leg. – At present, we know only six Syrian localities where this species has been reported (MARTENS & KOCK 1991, MARTENS 1993); the nearest locality to Palmyra is Jabal An Niqnaqiyah, 70 km W of Palmyra (MARTENS 1993).

***Laudakia stellio stellio* (Linnaeus, 1758)**

MZUF 40043-45: Jebel Bilas and Jebel Abu Rigimin, Spring 2001, GS leg.; MZUF 40046: Halili Jezel, 3.II.2001, GS leg.; MZUF 40047: Fir-Cedar Reserve, IV.2004, GS leg.; MCC R380: Palmyra, VIII.1990, RS leg. – The Palmyrean population appears to be isolated from the main range of this widespread Mediterranean species.

***Trapelus pallidus agnetae* (F. Werner, 1929)**

MZUF 40048-49: Palmyra area, 2000-2003, GS leg.

***Acanthodactylus boskianus asper* (Audouin, 1829)**

MZUF 40050-51: Palmyra area, 2000-2003, GS leg.; MCC R395-397: Palmyra, VIII.1990, RS leg.

***Acanthodactylus grandis* Boulenger, 1909**

MZUF 40052-54: Palmyra area, 2000-2003, GS leg.; Photographic record MCC-ph-00506-507, Al Talila Reserve, VI-VII.2000, photo GS.

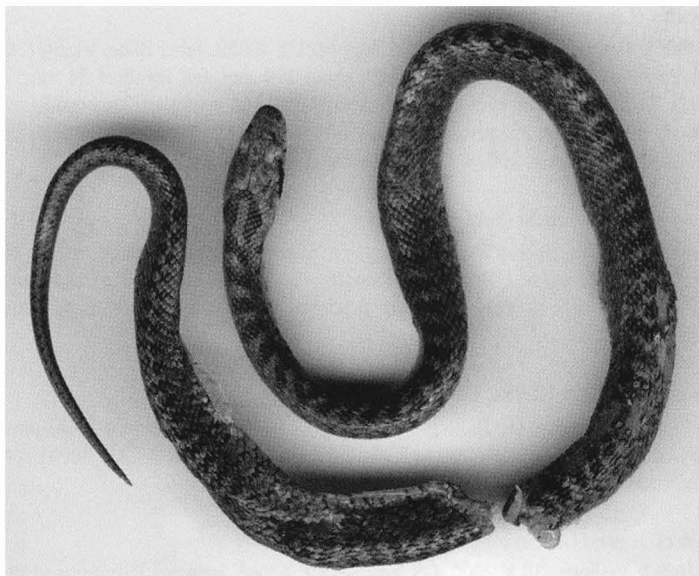


Fig. 3. *Zamemis hohenackeri*, MZUF 40073.

***Acanthodactylus orientalis* Angel, 1936**

MZUF 40055: Palmyra area, 2000-2003, GS leg.; MCC R394: Palmyra, VIII.1990, RS leg.

***Mesalina brevirostris* cf. *brevirostris* (Blanford, 1874)**

MCC R391-393: Palmyra, VIII.1990, RS leg. – The subspecific systematics of *M. brevirostris* are still unresolved; specimens from Palmyra were reported by ANGEL (1936) as *Eremias brevirostris* forma *typica*, a conclusion confirmed by the recent study of MORAVEC (2004).

***Ophisops elegans* cf. *elegans* Ménétriés, 1832**

Photographic record MCC-ph-00508, Jebel Abu Rigimin, spring 2001, photo G. SERRA. Photographic record MCC-ph-00499, Tell Barri, spring 2004, photo C. CORTI. – The NE Syrian specimens are thought to belong to the nominotypic subspecies by MORAVEC (1998).

***Chalcides ocellatus ocellatus* (Forskål, 1775)**

MZUF 40056: Wadi Abiad-Jebel Abu Rigimin (30-50 Km N from Palmyra), Spring 2002, GS leg.

***Eumeces schneiderii pavimentatus* (Geoffroy, 1827)**

MZUF 40057: between Wadi Abiad and Jebel Abu Rigimin (30-50 km N from Palmyra), Spring 2002, GS leg.

***Eryx jaculus* (Linnaeus, 1758)**

MZUF 40058: Palmyra oasis, IX.2000, GS leg.; MZUF 40059: Jebel Bilas, VI.2001, GS leg. – Measurements. MZUF 40058: body length about 299 mm, tail length = 34 mm; 2 post-internasals, 7 scales between eyes, 46 scales at midbody, 165 ventrals, 22 subcaudals. MZUF 40059: body length about 255 mm, tail length = 75 mm; 2 post-internasals, 5 scales between eyes, 45 scales at midbody, 160 (+ 3 divided preanal) ventrals, 26 subcaudals.

***Eirenis coronella coronella* (Schlegel, 1837)**

MZUF 40060: Mayuf, Spring 2003, GS leg. – Measurements: body length = 195 mm; tail length = 56 mm; % ratio body length / tail length = 28.7%; 140 ventrals, 51 subcaudals. On the basis of the morphological data, this specimen belongs to the nominate subspecies (SIVAN & WERNER 2003).

***Hemorrhhois nummifer* (Reuss, 1834)**

MZUF 40061: Palmyra area, 2000-2003, GS leg. – Photographic record MCC-ph-00509-512, Fir-Cedar Reserve, IV.2004, photo Mahmud Kamel ALI. – The MZUF 40061 specimen has 23 midbody scales, 187 ventrals and 79 subcaudals.

***Platyiceps* cf. *rogersi* (Anderson, 1893)**

MZUF 40062: Palmyra, 30.V.2000, GS leg.; MZUF 40063: between Palmyra and Deyr-ez-Zor, 25.X.2000, GS leg.; MZUF 40064: Palmyra surroundings, X.2002, GS leg. – Measurements. MZUF 40062 has 18 scale rows at midbody, 197 ventrals and a broken tail. MZUF 40063 has 19 midbody scales and 85 pairs of subcaudals (the specimen is damaged and the number of ventrals is not available). MZUF 40064 has 19 midbody scales, 203 ventrals, 86 pairs of subcaudals. – The specific attribution of our specimens is doubtful, as the literature does not provide reliable diagnostic characters for distinguishing *P. rogersi* from *P. ventromaculatus* (DISI et al. 2001).

***Lytorhynchus kennedyi* K. P. Schmidt, 1939**

MZUF 40065: Mayuf, spring 2003, GS leg. – Measurements: body length about 185 mm, tail length = 45 mm. 19 rows of smooth scales at midbody; 165 ventrals, 36 caudals (in two rows), anal divided. 8/8 supralabials (5th entering the eyes); 2/2 preoculars, 2/2 postoculars. Ground-colour whitish with 22 black transverse bands on body and 7 on the tail. Head and neck with a characteristic longitudinal dark streak. Belly uniformly whitish. – Although the specific status of *L. kennedyi* is still debated (LEVITON & ANDERSON 1970, MORAVEC 1995, DISI et al. 2001), we agree with GASPERETTI (1988) and MARTENS (1993) in ranking *kennedyi* at the specific level.

***Malpolon moilensis* (Reuss, 1834)**

MZUF 40066: Al Talila, 26.X.2000, GS leg.; MCC R366-367: about 30 Km WSW of Palmyra, VIII.1990, RS leg. – According to observations of GS, one of commonest snakes in the Palmyra area.

***Malpolon monspessulanus fuscus* (Fleischmann, 1831)**

MZUF 40067: Palmyra area, spring 2001. – So far we know, this species has not previously been reported from the Palmyra area.

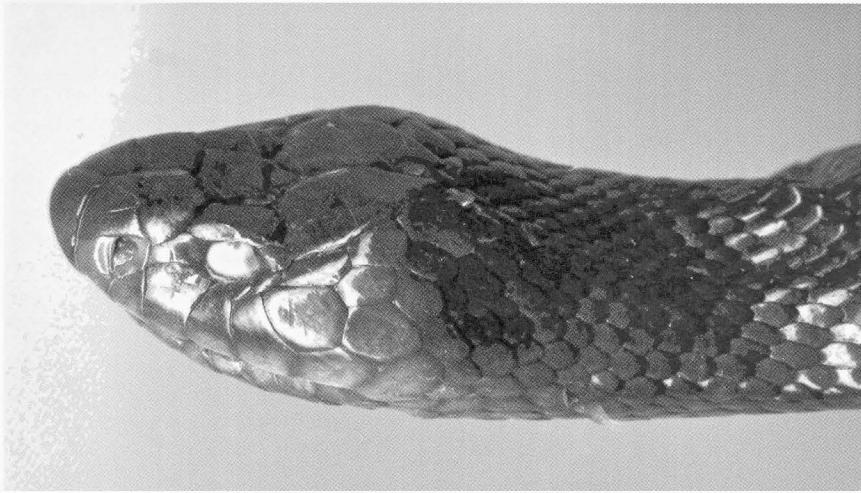


Fig. 4. *Walterinnesia aegyptia*, MZUF 40074.

***Psammodphis schokari* (Forskål, 1775)**

MZUF 40068: Al Talila, 14.XII.2000, GS leg.; MZUF 40069: Al Talila, 10.V.2000, GS leg. – The specimen MZUF 40068 has 184 ventrals, 105 subcaudals and a striped pattern; MZUF 40069 has 170 ventrals, 104 subcaudals, and is pale with the vertebral light stripe replaced by a series of light dots.

***Spalerosophis diadema cliffordi* (Schlegel, 1837)**

MZUF 40070: ad., Al Talila, 8.IX.2000, GS leg.; MZUF 40071: juv., Al Talila, Spring 2001, GS leg. – MZUF 40071 has 31 dorsals across midbody, 205 ventrals, and 72 caudals. MZUF 40070 has 29 midbody scales, 204 ventrals, and 69 subcaudals. – This species has rarely been found in Syria (ANGEL 1936, HAAS 1951, MARTENS 1993, BISCHOFF & SCHMIDTLER 1994); despite this apparent rarity and according to the observations of GS, this seems to be the commonest snake in the Palmyra area.

***Telescopus nigriceps* (Ahl, 1924)**

MZUF 40072: Sed Wadi Abiad, V.2002, GS leg. – Measurements: body length about 445 mm, tail length = 77 mm. 19 rows of smooth scales around the neck, 19 at midbody, 17 before the vent; 174 ventrals, 48 caudals (in two rows), anal divided. 8/8 supralabials (3rd, 4th and 5th entering the eyes); 10/10 infralabials. Ground-colour whitish with 19 irregular black transverse bands, becoming 9-10 very irregular blotches on tail. Head black, irregularly speckled with whitish, mainly laterally and below. Belly black, irregularly speckled with whitish. – *T. nigriceps* is a rare cat-snake endemic to the Middle East, where it is only known from E Lebanon (ZINNER 1967), two localities in SW Syria (MARTENS 1993), and



Fig. 5. *Vipera xanthina*, MCC-ph-00514.

from a dozen localities in W Jordan (DISI et al. 2001). This is the third Syrian specimen and extends the range of the species about 70 km north-east.

***Zamenis hohenackeri tauricus* (Werner, 1898)**

MZUF 40073: 1 young, Slenfe, IV.2004, GS leg. – Measurements: total length about 355 mm, body length = 295 mm, tail length = 60 mm. 23 rows of smooth scales at midbody; 202 ventrals, 65 subcaudals. Back brownish-grey, with numerous brown-black transverse cross-bars, about half as wide as the body diameter; on the tail these crossbars are interrupted along the vertebral line. Ventrals mostly black, with irregular grey edges. Ventral part of the head completely black. – This species was previously reported from Syrian territory only from the Mt. Hermon area, in the Israeli administered territories (HOOFIEN 1973, SIVAN & WERNER 1992). The subspecific status is in accordance with SCHULTZ (1996).

***Walterinnesia aegyptia* Lataste, 1887**

MZUF 40074: adult female, Arak village, V.2003, GS leg.; MZUF 40075: ruins of Palmyra, 4.VIII.2000, killed by local people, GS leg.; another very damaged specimen was found, but not collected, during September 2002 in the Hamad desert (70-100 km S of Palmyra). – Measurements: MZUF 40074 specimen is severely damaged, so that body and total length are only estimated. Total length about 870 mm; body length about 740 mm; tail length = 130 mm. 25 rows of smooth scales around the neck, 23 rows of smooth scales at midbody, 18

rows of keeled scales before the vent; about 163 ventrals, 7 entire and 36 divided (in two rows) caudals, anal divided. 7/7 supralabials (3rd and 4th entering the eyes). Ground-colour blackish, belly lighter. MZUF 40075 is too damaged for measurements to be made. – Around Syria, *W. aegyptia* is known from Jordan (see DISI et al. 2001), Iraq (GASPERETTI 1988), and S Anatolia (UĞURTAŞ et al. 2001). On the basis of these data, the occurrence of this snake in Syria was expected but, although generically listed in several papers (e.g. DISI & BÖHME 1996), no substantiated records were previously known (MARTENS 1997). Our specimens definitively confirm the occurrence of this species in Syria.

***Pseudocerastes persicus fieldi* K. P. Schmidt, 1930**

MZUF 40076: adult (about 80 cm long), Mayuf, V.2002, GS leg. ; other observations (all by GS): 1 adult, Hamad desert (at about 70-100 Km S of Palmyra), VI.2002; 2 young, Mayuf area, VI.2002 and IV.2003; 1 adult (about 50 cm long), near Gattar, IV.2004. – We know of only three previous Syrian records of this snake, listed by MARTENS (1993) and MORAVEC & MODRÝ (1994).

***Vipera cf. xanthina* (Gray, 1849)**

Photographic record MCC-ph-00513-514, Fir-Cedar Reserve, IV.2004, photo GS.; three additional specimens were found by GS in the same area in April 2004. – The body pattern of the photographed specimen is similar to that of “*V. bulgardaghica*”. The unexpected occurrence of this species in NW Syria, in an area almost halfway between the known ranges of “*V. bulgardaghica*” (Bolkar Mts, Cilician Taurus) and “*V. bornmuelleri*” (Mt. Lebanon Range and Mt. Hermon), supports the opinion of SCHÄTTI et al. (1991) who consider *V. bornmuelleri* and *V. bulgardaghica* to be conspecific with *V. xanthina*.

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