

Short Communication

Recent observations on snakes from Jordan

Mohammad Al-Saraireh^{1*} & Amr Ghyada²

1 Royal Medical Services, Oncology Department, Amman, Jordan.

* Corresponding author: abohashem99m@gmail.com

2 China Energy Group, Construction Department, Amman, Jordan

The status and distribution of the snakes of Jordan have been extensively documented over the past three decades. However, additional distributional data are important to better understand the true distribution and ecological preference of snakes. Field notes are useful in that they provide anecdotal, needed information that can provide more insight to the biology of these animals. In this communication, we provide additional distributional and ecological observations for 18 species of snakes.

Family Colubridae

Dolichophis jugularis (Linnaeus, 1758)

Materials: Salt, 1.4.2018. Jawa (near Amman), 6.6.2018. Al Mazar Al Janoubi, 27.6.2018.

Remarks: A juvenile measuring 35 cm, Jawa, near Amman. An immature snake reaching up to 125 cm with the typical immature coloration was collected from Al Mazar Al Janoubi, while three other adult individuals were observed in a chicken farm. A 275 cm adult specimen was collected from Salt. The Syrian Black Snake is confined to the Mediterranean biotope, although specimens were also found in transitional areas between the Irano-Turanian and the Mediterranean biotopes (Amr & Disi, 2011).

Hemorrhhis nummifer (Reuss, 1834)

Material: Wadi Al Hidan, 23.3.2018.

Remarks: The Coin Snake is usually found in shrubby and forested areas that extend along the mountainous range stretching from the north as far as Petra to the south (Amr & Disi, 2011). It was found in a cliff overlooking the water source.

Lytorhynchus diadema (Duméril, Bibron & Duméril, 1854) Fig 1A

Material: Al Atarat, 27.3.2018.

Remarks: The Diademmed Sand Snake has been collected previously from southern Jordan. Al-Oran (2000) referred to a specimen collected from Al Jafer (in Southern or some other part of Jordan) similar to the individual we

collected as “forma ”*kennedyi*” Schmidt, 1939” in Al Atarat. The body colour was bright orange to reddish, with dark transverse spots on body and tail.

Malpolon insignitus (Geoffroy De St-Hilaire, 1809)

Material: Al Hashemeyah, near Zarqa, 3.1.2018.

Remarks: The Montpellier Snake typically inhabits the Mediterranean biotope in Jordan that is typically associated with vegetated areas. We collected an individual from arid regions within the Irano-Turanian biotope in the Al Hashemeyah area, near Zarqa. This snake was found hibernating under rocks in a construction site.

Platyceps collaris (Müller, 1878)

Material: Ain Al Bedah, Marka near Amman, 10.8.2017

Remarks: The Red Whip Snake is a strictly Mediterranean species. It is distributed along the mountain ranges that extend along northern Jordan to Petra in the south (Amr & Disi, 2011).

Platyceps rogersi (Anderson, 1893) Fig 1B

Material: Al Jizah, 20.5.2018.

Remarks: Roger’s Snake inhabits rocky or stony hills, hamada and steppes (Amr & Disi, 2011). It is more common in the eastern desert. Two specimens were found in a deserted house.

Platyceps sinai (Schmidt & Marx, 1956)

Material: Wadi Wadyeh (Ghor Al Karak), 19.8.2018.

Remarks: The Sinai Banded Snake was collected and observed previously from mouth of Wadi Al Mujib (Werner, 1998) and Wadi Ramm (Sindaco et al., 1995). This is a rare snake with limited known localities. It was found killed in the wadi.

Psammophis schokari (Forskål, 1775)

Material: Al Jizah, 20.5.2018.

Remarks: This is a common species in arid habitats, however, its distribution reaches the Mediterranean ecozone. It was observed during daytime under bushes on a black basalt wall at mid-day (Amr & Disi, 2011).

Rhagerhis moilensis (Reuss, 1834) Fig 2A

Material: Al Atarat, 13.5.2018.

Remarks: The Moila Snake is a common species in the Saharo-Arabian as well as some limited areas within the Irano-Turanian biotopes.



Figure 1: A. *Lytorhynchus diadema* from Al Atarat, B. *Rhagerhis molensis* Al Atarat.

Telescopus dhara (Forskål, 1775) Fig 2B

Material: Al Kafraïn, 30.3.2018.

Remarks: The Tree Cat Snake is distributed in the arid regions and rocky hills of the southern Jordan Valley, Wadi Araba and Wadi Ramm (Amr & Disi, 2011). This specimen was found in a banana planation within the Jordan Valley.

Telescopus nigriceps (Ahl, 1924)

Material: Sakhra, 3.7.2018.

Remarks: The Black-headed Cat Snake is characterized by two forms in Jordan. The true or typical form "*T. nigriceps*" and the form "*T. cf. nigriceps*". The first form is found in flat desert areas at low elevations, while the latter form is known from mountainous areas at high elevation (Disi et al., 2001). We collected one individual at one am near a pigeon coup.



Figure 2: A. *Platyceps rogersi* from Al Jizah. B. *Telescopus dhara* from Al Kafraïn.

Family Atractaspididae

Micrelaps muelleri Boettger, 1880

Material: Kitim, 18.6.2018

Remarks: The Mueller's Ground Viper is a nocturnal and fossorial snake. This specimen was collected from a house.

Family Elapidae

Walterinnesia aegyptia Lataste, 1887

Material: Mahis, July 2017. Saroot, 14 August 2018.

Remarks: The black desert Cobra is from extreme desert habitats in the eastern desert and Wadi Araba to the mountain ranges near Al Karak and As Salt areas (Amr & Disi, 2011). We collected an individual from a mixed oak and pine forest in the Mediterranean zone.

Family Viperidae

Daboia palaestinae (Werner, 1938)

Material: Wadi Al Harmeyeh (Salt), 29.4.2018. Al Shajarah, 4.3.2018.

Remarks: The Palestine Viper is associated with oak and pine forested areas (Amr & Disi, 2011). The specimen from Wadi Al Harmeyeh was in ambush position under oak leaf litter around 11 am. We observed it striking a dove. This snake is considered the most dangerous viper in Jordan, causing the highest rate of fatalities (Amr & Disi, 2015).

Echis coloratus Günther, 1878

Material: Wadi Shaib, July 2017.

Remarks: The Arabian Saw-scaled Viper is an abundant and widespread snake that occurs in steep, dry rocky hillsides of mountains (Amr & Disi, 2011). This species is considered one of the most venomous vipers in Jordan (Amr & Disi, 2015).

Macrovipera lebetina obtusa (Dwigubsky, 1832) Fig 3A

Material: Karka (Tafilah), 6.7.2018.

Remarks: Al-Oran et al. (1998) recorded the Levantine Viper for the first time in Jordan from Sail El 'Aina and Al Ḥarīr. Two large specimens were caught by a farmer from Karka, where one was killed instantly, while the other individual was kept alive. The alive specimen regurgitated three house sparrows. Karka is close to Al Ḥarīr.

Pseudocerastes fieldi Schmidt, 1930 Fig 3B

Material: Azraq, 22.6.2018. Wadi Al Ghadaf, 9.8.2018.

Remarks: All previous specimens of the False Horn Viper recorded in Jordan have been the melanistic form from the eastern desert. Both of our specimens represent a new colour form for Jordan.



Figure 3: A: *Macrovipera lebetina obtusa* from Karka (Tafilah), B: *Pseudocerastes fieldi* from Wadi Al Ghadaf.

ACKNOWLEDGEMENTS

We wish to extend our thanks to Dr. Mohammad Abu Baker and Dr. Zuhair Amr for their help in drafting the manuscript and photography. We would also like to extend our thanks to Dr. Nashat Hamidan for his help in photography.

REFERENCES

- Abu Baker, M., Qarqaz, M., Rifai, L., Hamidan, N., Al Omari, K., Modry, D. & Amr, Z. 2004. Results of herpetofaunal inventory of Wadi Ramm Protected Area, with notes on some relict species. *Russian Journal of Herpetology*, 11(1):1-5.
- Abu Baker, M., Rifai, L., Joger, U., Nagy, Z., Wink, M. & Amr, Z. 2002. Occurrence of *Coluber (Hierophis) schmidtii* Nikolsky, 1909 in Jordan (Squamata: Colubridae). *Herpetozoa*, 15(1/2):29-36.
- Al-Oran, R. & Amr, Z. S. 1995. First record of the Mole Viper, *Atractaspis microlepidota engaddensis*, from Jordan. *Zoology in the Middle East*, 11:47-49.
- Al-Oran, R.M. 2000. Notable herpetological records from Central and Southern Jordan. *Zoology in the Middle East*, 21: 31 – 36.
- Al-Oran, R.M., Rostum, S., Joger, U. & Amr, Z. 1998. First record of the Levantine Viper, *Macrovipera lebetina*, from Jordan. *Zoology in the Middle East*, 16:65-70.
- Amr, Z. S., Al-Oran, R. & Disi, A. M. 1994. Reptiles of southern Jordan. *The Snake*, 26(2):41-49.
- Amr, Z. S., Al-Oran, R M. & Al-Melhem, W. N. 1997a. Aggregation behavior in two Jordanian snakes: *Coluber rubriceps* and *Typhlops vermicularis*. *Herpetological Review*, 28: 130-131.
- Amr, Z. S., Disi, A. M. & Al-Melhim, W. N. 1997b. Addition to the knowledge of Mueller's snake, *Micrelaps muelleri* Boettger, 1880 (Reptilia, Serpentes, Colubridae). *Herpetozoa*, 10(3/4):163-168.
- Amr, Z. S. & Disi, A. M. 1998. Diet of some snakes from Jordan. *Amphibia-Reptilia*, 19:436-439.
- Amr, Z. S. & Disi, A. 2011. Systematics, distribution and ecology of the snakes of Jordan. *Vertebrate Zoology*, 61:179-266.
- Amr, Z.S. & Disi, A.M. 2015. Snakes and snake bites in Jordan. In: *Clinical Toxinology in Asia Pacific and Africa*, Toxinology, P. Gopalakrishnakone *et al.* (eds.). Pp. 251-273.
- Amr, Z.S., Mebert, K., Hamidan, N., Abu Baker, M. & Disi, A. 2011. Ecology and conservation of the Dice Snake, *Natrix tessellata* in Jordan. *Mertensiella*, 18: 393-400
- Disi, A.M, Amr, Z.S. & Martens, H. 2004. On the collection of amphibians and reptiles made by Mr. J. Klapperich from Jordan. *Herpetozoa*, 16: 141 – 150.

- Disi, A.M. 1983. Contribution to the herpetofauna of Jordan. 1. Venomous snakes. *Dirasat*, 10: 167 – 180.
- Disi, A.M. 1985. A contribution to the herpetofauna of Jordan. 2. New records and a systematic list of snakes from Jordan. *The Snake*, 17: 31 – 42.
- Disi, A.M. 1990. Venomous snakes in Jordan. – In: Snakes of Medical Importance (Asia-Pacific Region). (Eds.: Gopalakrishnakone, P. & Chou, L.M.): 352 – 376. National University of Singapore and International Society on Toxinology (Asia-Pacific Section).
- Disi, A.M. 1993. Contribution to the herpetofauna of Jordan: V. New records of three colubrid snakes from Jordan. *The Snake*, 25: 109 – 113.
- Disi, A.M. 1996. A contribution to the knowledge of the herpetofauna of Jordan. IV. The Jordanian herpetofauna as zoogeographic indicator. *Herpetozoa*, 9: 71 – 81.
- Disi, A.M. 2002. Herpetofauna of Jordan. United Nations Environment Programme. Amman. 288 pp.
- Disi, A.M. 1987. Environmental factors affecting snake distribution in Jordan. In: Proceedings of the Symposium on the Fauna and Zoogeography of the Middle East, Mainz 1985. (Eds.: Krupp, F., Schneider, W. & Kinzelbach, R.): 296 – 310. Beihefte zum Tübinger Atlas des Vorderen Orients (A) 28.
- Disi, A.M., Amr, Z.S. & Defosse, D. 1988. Contribution to the herpetofauna of Jordan. 3. Snakes of Jordan. *The Snake*, 20: 40 – 51.
- Disi, A.M., Modrý, D., Bunian, F., Al-Oran, R. & Amr, Z. 1999. Amphibians and reptiles of the Badia region of Jordan. *Herpetozoa*, 12: 135 – 146.
- Disi, A.M., Modrý, D., Nečas, P. & Rifai, L. 2001. Amphibians and Reptiles of the Hashemite Kingdom of Jordan. An Atlas and Field Guide. Edition Chimaira. Frankfurt am Main, 408 pp.
- El-Oran, R. M., Al-Melhem, W. N. & Amr, Z. S. 1994. Snakes of southern Jordan. *Bollettino di Zoologia*, 61(4):359-367.
- Modrý, D., Rifai, L., Abu Baker, M. & Amr, Z. 2004. Amphibians and reptiles of the Hashemite Kingdom of Jordan. *Denisia*, 14: 407-420.
- Sindaco, R., Fedrighini, N. & Venchi, A. 1995. Contribution to the herpetology of Jordan. *Boll. Mus. reg. Sci. nat. Torino*, 13: 389 – 405.
- Werner, Y.L. 1998. The desert herpetofauna in and near Israel: a personal review of advances (1986 – 1997), with new data (Amphibia; Reptilia). In: Contribution to a “*Herpetologia Arabica*.” (Eds. Fritz, U., Obst, F.J. & Andreas, B.), *Faunistische Abhandlungen Staatliches*.