

ADDITIONAL RECORDS TO THE HERPETOFAUNA OF NALUT PROVINCE, LIBYA

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ABSTRACT

A total of 23 herpetofaunal species, including 2 frogs, 15 lizards, 5 snakes and one tortoise were reported from Nalut, Al-Jomayyel and Wazen provinces in Libya during the period November 2003- June 2004. Of these, 2 frogs and 16 reptile species were added to Nalut herpetofauna. This study confirms the occurrence of *Scincopus fasciatus* in Libya (Sindaco, 1995) and suggests the prevalence of *Uromastix acanthinura* in the Libyan west. In contrast, some species such as *Mesalina rubropunctata* was rare in western Libya.

INTRODUCTION

In North Africa, herpetological activities had always been focused on Egypt and Maghreb countries, Tunisia, Morocco and to a lesser extent Algeria (e.g., Boulenger, 1891; Anderson, 1898; Doumergue, 1901; Bons, 1958; Marx, 1968; Blanc, 1978, 1979; Blanc and Ineich, 1985; Le Berre, 1989; Bons and Geniez, 1996; Saleh, 1997; Geniez et al., 2004; Nouria and Blanc, 2004). In fact, only little attention has been paid to the Libyan fauna (Werner, 1909; Scortecci, 1935; Schnurrenberger, 1959; Kramer and Schnurrenberger, 1963; Schleich, 1984, 1987, 1989; Laurent et al., 1997; Oliverio et al., 2000; Schätti, 2004). Recently, Schleich et al. (1996) reviewed the Libyan herpetofauna, reporting about 50 species from Libya, but mentioning no exact location data for almost a half of these species. Moreover, they reported nothing from Nalut province, showing clearly the shortage of herpetofaunal information on this area. During the past decade, some additions to the Libyan herpetofauna were made. For example, Sindaco (1995) reported *Scincopus fasciatus* for the first time from

Libya as a preserved specimen in the "Museo regionale di scienze naturali" in Italy. Frynta *et al.* (2000) reported two species of frogs and 25 species of reptiles from different localities in Libya, covering mostly the north eastern and western corners of the country, in addition to some regions in the extreme southern west. From Nalut province, they recorded 4 geckos, *Stenodactylus petrii*, *S. sthenodactylus*, *Tarentola mauritanica* and *Tropiocolotes tripolitanus* and one snake, *Cerastes cerastes*. Pieh and Perälä (2002) described a new subspecies of desert tortoises from Libya, *Testudo graeca cyrenaica*. However, Libya is still the country to be least studied herpetologically in North Africa and the herpetofaunal database in this country, especially in the west, is still deficient. The goal of this study was to find out the herpetofaunal community in Badr village in the extreme northern west and to record ecological notes on species whenever possible.

MATERIALS AND METHODS

Study Site

The study was carried out in Badr (32° 2' 27" N, 11° 32' 38" E), Nalut province (Sha'beyyat Nalut), Great Socialist People's Libyan Arab Republic (Jamahireyya) during the period from November 2003 through June 2004. Badr, a fairly large village, 200 km south west of Tripoli, covers an area of about 40 km² and has a population around 19,000 people. Human settlements are dispersed in the desert and each is surrounded by a limestone brick fence. Most of areas between houses are natural, with rough sand soil, boulders and sparse vegetation. However, cultivated trees such as *Eucalyptus* sp. and *Salix* sp. are usually found around houses. The village is traversed by tar roads which connect its quarters. The study site was subdivided into 4 stations: St. #1: Badr village; St. #2: a desert at northern periphery of Badr; St. #3: Ain (water spring) Al-Khenjari, about 8 km north of Badr and St. # 4: Badr agricultural project (mixture of green and deserted areas), about 7 km south of Badr. The herpetofaunal samples were collected during day and night by hand and rubber bands during 12 field excursions. Voucher specimens were deposited in Paris Natural History Museum (MNHN) collections and in the personal collections of one of us (AAI). Location coordinates were determined by using GPS 300, Magellan, USA.

RESULTS

Two species of amphibians and twenty species of reptiles were recorded from Badr during our study. The lacertid lizard, *Acanthodactylus scutellatus*, which is common in Badr, was also collected from Sha'abeyyat Al-Jomayyel (32° 51' N, 012° 3' E). A single snake, *Coluber algirus*, not recorded from Badr, was sampled from the Wazen town (32° 01' N, 010° 37' E), Sha'abeyyat Wazen at about 120 km from Badr. The following is a checklist of amphibians and reptiles recorded during this study. In brackets are the register numbers of specimens in MNHN collections.

I. CLASS: AMPHIBIA

Family: BUFONIDAE

1. Green Toad, *Bufo viridis* Laurenti, 1768

(MNHN 2004.0482): Found in Badr drinking water station at St. # 4, active during most seasons and in warm days during winter.

Family: RANIDAE

2. Water Frog, *Rana saharica* Boulenger, 1913

(MNHN 2004.0480-0481): A common frog in water springs and rain pools. Some individuals were collected from Ain Al-Khenjari during sunny days in January and February. At slightest danger, this frog hides itself in the bottom which is difficult to be seen, especially through the surface vegetation cover.

II. CLASS: REPTILIA

Order: SQUAMATA

Suborder: SAURIA

Family: AGAMIDAE

1. Desert Agama, *Trapelus mutabilis* (Merrem, 1820)

(MNHN 2004.0085): Two individuals were collected at night during spring and summer from firm sand soil, with gravel and sparse vegetation close to human settlements in Badr.

2. Bell's Dab-lizard, *Uromastix acanthinura acanthinura* Merrem, 1820

(MNHN 2004.0093): A conspicuous agamid species in Badr. Four adults and two juveniles were collected from desert and agricultural project during spring. Several individuals of different ages were also brought to us, but we released them at their sight of capture.

Family: CHAMAELEONIDAE

3. Common Chameleon, *Chamaeleo chamaeleon* (Linnaeus, 1758)

(MNHN 2004.0087 & 0092): Three individuals were sampled from olive trees and edible fruits during March in Badr. Additionally, a big individual was captured near Nalut city.

Family: GEKKONIDAE

4. Turkish Gecko, *Hemidactylus turcicus* (Linnaeus, 1766)

Only one individual was observed inside a house on 14 February 2004. Amazingly, no more individuals were seen even during summer.

5. Petrie's Gecko, *Stenodactylus petrii* Anderson, 1896

(MNHN 2003.2962): Five individuals were found in sandy areas around Badr (St. # 2), mostly around shrubs in spring and summer. This species was most active between 2000 h to 2400 h.

6. Elegant Gecko, *Stenodactylus sthenodactylus* (Lichtenstein, 1823)

(MNHN 2003.2963): Two individuals were caught between 2000 h and 2300 h in May and June 2004, coexisting with *S. petrii* and *Tropiocolotes tripolitanus*.

7. Moorish Gecko, *Tarentola mauritanica* (Linnaeus, 1758)

(MNHN 2004.0082): The most common gecko in the area, active throughout the year with a notably lesser number during winter, found everywhere, on walls of inhabited and abandoned houses and on rock boulders. This species was essentially nocturnal, observed on buildings in dark and around electric lamps. It was also active inside buildings during day, but never exposed to the sun.

8. Tripoli Dwarf Gecko, *Tropiocolotes tripolitanus* Peters, 1880

(MNHN 2003.2964 - 2965): A nocturnal gecko, several individuals were collected from areas characterized by firm sand surface and gravels in St. # 2, coexisting with *Trapelus mutabilis* and *Acanthodactylus boskianus*.

Family: LACERTIDAE

9. Bosc's Fringe-toed Lizard, *Acanthodactylus boskianus* (Daudin, 1802)

(MNHN 2004.0083): A common lacertid lizard in relatively hard soil. Some individuals were collected from Badr agricultural project areas.

10. Nidua Lizard, *Acanthodactylus scutellatus* (Audouin, 1809)

(MNHN 2004.0089): found moving on the sand surface in Badr deserts even in sunny days in January. Three individuals were also collected from Al-Jomayyel in spring.

11. Red-spotted Desert-racer, *Mesalina rubropunctata* (Lichtenstein, 1823)

A single individual was collected during day from Badr Agricultural project in April (AAI pers. coll.).

Family: SCINCIDAE

12. Ocellated Skink, *Chalcides ocellatus ocellatus* (Forskål, 1775)

(MNHN 2004.0084): A single individual was captured from Ain Al-Khenjari on 21 March 2004. Some individuals were brought afterward to the lab by students from different farms in Badr.

13. Banded Skink, *Scincopus fasciatus* (Peters, 1864)

(MNHN 2004.0081): Two adults were captured during March in Badr.

14. Boulenger's Skink, *Sphenops boulengeri* (Anderson, 1896)

(MNHN 2004.0088): Some individuals of different ages were captured during winter and spring from agricultural project area.

Family: VARANIDAE

15. Desert Monitor, *Varanus griseus* (Daudin, 1803)

Conspicuous tracks were observed on the surface during spring and summer, but we did not see any monitor during our surveys.

Suborder: SERPENTES

Family: COLUBRIDAE

16. Algerian Whip Snake, *Coluber algirus* (Jan, 1863)

(MNHN 2004.0079): A single snake was captured from Wazen town during April 2003.

17. False Smooth Snake, *Macroprotodon cucullatus* (Geoffroy St. Hilaire, 1827)

A young snake was captured and killed by the guard on campus of Saqr Africa University in Badr on 27 November 2003.

18. Egyptian Cat Snake, *Telescopus obtusus* (Reuss, 1834)

(MNHN 2004.0080): Only one snake was captured from Badr in June 2004.

Family: VIPERIDAE

19. Horned Viper, *Cerastes cerastes cerastes* (Linnaeus, 1758)

(MNHN 2004.0078): Two adults were captured in March and April. One of these was captured from a house backyard in Badr.

20. Avicenna's Viper, *Cerastes vipera* (Linnaeus, 1758)

(MNHN 2004.0086): an adult was captured from a sandy area during March 2003. Due to the nature of coarse Badr soil, *C. cerastes* is probably more common than *C. vipera* in this area.

Order: CHELONII

Family: TESTUDINIDAE

21. Spur-thighed Tortoise, *Testudo graeca cyrenaica* Piehl and Perälä, 2002

A single female was brought to us from Badr. A photograph was taken and later identified by R. Bour; the specimen was released. It is the most common tortoise species in the area and many people keep them as pets.

DISCUSSION

Despite the vast area of Libya and characteristic variation of its desert topography, herpetofaunal records in this country are still lacking when compared to adjacent countries in northern Africa (Frynta et al., 2000). The recent book of Schleich et al. (1996) is considered the only source of information that compiled the literature of Libyan herpetofaunal records during the past century. The number of species re-

corded during the present study reflects the richness of herpetofauna in this area and possibly the whole province when compared to the number of species (2 frogs and 25 reptiles) reported by Frynta et al. (2000) from about 30 different localities in this country. Although our study added 2 frogs and 16 reptile species to the Nalut herpetofauna, more species, snakes in particular, are expected to be found in Nalut province if extensive field surveys are carried out during the whole summer. Our study also suggests the occurrence and prevalence of the agamid lizard, *Uromastyx acanthimura* in the Libyan west. This species which has been reported in different locations in Libya other than Nalut Province (Frynta et al., 2000; Wilms, 2004), was numerous in our study site. Additionally, our study confirms the occurrence of *Scincopus fasciatus* in Libya (Sindaco, 1995). In contrast, there is an indication of rarity of some species in western Libya such as *Mesalina rubropunctata*. This finding was also reported by Schleich et al. (1996). It is clear that Libya is the least-studied country in North Africa. Therefore, there is scarce information on the herpetofaunal records and a lot of work is waiting to be done in Libya.

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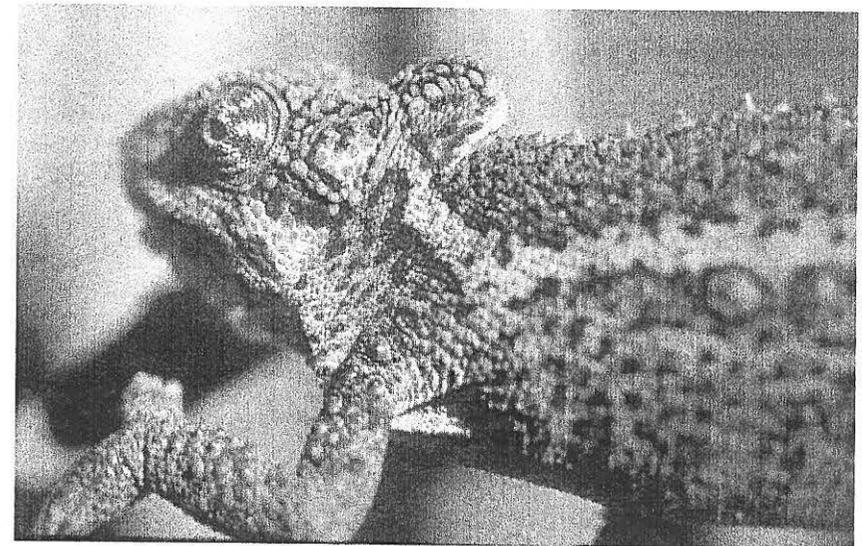
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