ANNOTATED CHECKLIST OF
REPTILIAN FAUNA OF BASRAH, SOUTH OF IRAQ

Saman R. Afrasiab* Azhar A. Al-Moussawi
and
Hind D. Hadi

Iraq Natural History Research Center and Museum, University of Baghdad,
Baghdad, Iraq
*Corresponding author: s_lahony@yahoo.com

Received Date: 03 January 2018 Accepted Date: 02 April 2018

ABSTRACT
Basrah province is situated at the extreme south of Iraq, it has an interesting reptile fauna
(Squamata and Serpentes) and represents a land bridge between three different
zoogeographical regions (Oriental, Palaeartic and Ethiopian).

This situation gave Basrah province a topographic specific opportunity for raising its own
faunal diversity including reptiles; in this study Basrah province was divided into four main
zones: the cities and orchards, marshes and wetlands (sabkha), the true dessert, the seashore
and Shat Al-Arab.
Forty nine reptile species were recorded including snakes, sea and fresh water turtles, and
Lizards; brief notes and descriptions for the rare and important species were provided and
supported by Plates.

Key words: Basrah, Squamata, Serpentes, Turtles, Zoogeography.

INTRODUCTION
There are some previous lists for Iraqi herpetofauna (Boulenger, 1920 a, b) and for snakes
Corkill (1932), Khalaf (1959), Mahdi and Georg (1969) and Habeeb and Rastegar-
Pouyani (2016); most of them depended on references, there is no specific collection list for Basrah
province except that of Afrasiab and Ali (1989a) for west Basrah.

The Basrah province is a very important area from the geographical point of view because it
is a triple bridge connecting three different zoogeographical regions, at south east the oriental
penetration, at south west the Arabian and Ethiopian penetration and from north the dominant
Palaeartic region. Also it is in contact with Arabian Gulf (Leviton, 1986; Disi, 2002; Hawramany, 2007); these situations gave a rich biodiversity and species diversity.

MATERIALS AND METHODS
The present study depended on the collection of the Iraq Natural History Research Center
& Museum, University of Baghdad (INHRCM) and the Basrah Natural History Museum,
University of Basrah, Basrah province with some recently specimens collected by the authors,
Annotated Checklist of Reptilian Fauna of Basrah

brief descriptions and necessary measurements were presented along with specific
descriptions and definitions for some important specimens. Along with present study on
survey of Reptiles (Squamata and Serpentes) of this province, we will try to connect each
collection with penetrations of these zoogeographical zones in this particular area within
reptile diversity.

RESULTS AND DISCUSSION

Some species are adapted to diurnal type of life while the others are nocturnal. The western
reptilian fauna are adapted to desert life, others beneath houses and orchards; but the northern
and eastern groups are adapted to marshes and wet lands mainly fresh water. From the other
hand the seashore and Shat Al-Arab also have its own biodiversity related to brackish to
marine water.

Remark: If any species is recorded as a common in a specific zone this does not mean that it's
not found in other zones, but it means that it may be common in one habitat and rare in others.

(1) The cities and orchards zone:
The lizards

(A) Family, Gekkonidae
1- Hemidactylus flaviviridis Ruppell, 1840
2- Cyrtopodion scabrum (Heyden,1827)

According to Khalaf (1959) and Leviton et al. (1992) its synonyms reported as
Gymnodactylus scaber (Heyden,1827) Cyrtopodion scaber (Heyden,1827), respectively; then
Afrasiab and Mohamad (2009) announced that C. scabrum (Heyden,1827) as a valid name
in Iraq.

This is the only Cyrtopodion found in this area. Nader and Jawdat (1976) recorded C.
hetrocerous in their list from Basrah; However, Leviton et al. (1992) stated that this gecko is
found in elevation more than 1000 meters.

(B) Family, Lacertidae
1- Acanthodactylus ophoeodurus Arnold,1980
2- Mesalina brevirostris Blanford, 1874 (Pl. 1)

Plate (1): Preserved specimens of M. brevirostris; collected from the North of Basrah
province.
Saman R. Afrasiab et al.

(C) Family, Scincidae

*Mabuya aurata* (Linnaeus,1758) (=*Trachylepis auratus*)

The snakes

(A) Family, Typhlopidae

*Ramphotyphlops braminus* (Daudin, 1803) (=*Typhlops braminus*)

This small blind snake was known as a rare and the smallest snake of Iraq; Boulenge (1920a), Corkill(1932) and Khalaf (1959) recorded it from Basrah, they thought it was of Indian origin and introduced by ships. However, Afrasiab and Ali (1996) recorded it from Baghdad about 550 km north to studied area.

Body color dark brown–black and length does not exceed 10cm with 20 scales around mid-body, nasal divided; mostly found in old houses.

Remark: It is a good example for oriental penetration in Basrah province because it is of an Indian origin.

(B) Family, Leptotyphlopidae

*Leptotyphlops macrorhynchus* (Jan,1861)

(C) Fmily, Boidae

*Eryx jaculus jaculus* (Linnaeus,1758) (Pl. 2, 8)

Plate (2): *Eryx jaculus jaculus*; from North of Basrah province.

(D) Family, Colubridae

*Platycps ventromaculatus* Gray, 1834 (Pl. 3)

This snake is one of the critic species of snakes; its distribution is from India (Khan, 1997). Schatti and Schmitz (2006) mentioned that the Iraq and north Arabian species is not *P. ventromaculatus*, instead it is one of *Platycps rhodorachis* complex and they explained that it may belongs to *Coluber chesnii* Martin,1838 of Northern Arabia. Afrasiab and Mohamad (2011) announced that this snake is distributed from foothill to Basrah and it is common in Baghdad city.
Annotated Checklist of Reptilian Fauna of Basrah

Plate (3): *Platycps ventromaculatus*; from North of Basrah province.

(2) Marshes and wetland (Sabkha) zone
This ecosystem has a specific reptilian diversity as follow:

The lizards
(A) Family: Gekkonidae

*Stenodactylus affinis* (Murray, 1884) (Pl. 4)
The marsh gecko was always found in the sabkha land beside marshes, it was previously recorded in Iraq from Kahla area south of Amara city (Southern Iraq) and from Karbala (Central Iraq) (Afrasiab, 1987). This gecko is easily recognized from *Stenodactylus grandiceps* by having two enlarged preanal scale with pores, three rows of granular scales under the toes and differ from *S. slevini* in lacking the V shaped mark on the head and anal pores.

Plate (4): *Stenodactylus affinis*; from North of Basrah province.
Saman R. Afrasiab et al.

(B) Family: Lacertidae
1- Acanthodactylus boskianus (Daudin, 1802)
2- Acanthodactylus grandis Boulenger, 1909

(C) Family: Scincidae
1- Ablepharus pannonicus Fitzinger, 1823
   This lizard has been listed with Rumaila’s lizards (Afrasiab and Ali, 1989a), unfortunately the authors could not found it in this collection, but it is common in Baghdad.

2- Mabuya aurata septemtaeniata (Reuss, 1834) (= Trachylepis septemtaeniata) (Pl. 5)
   Some authors regarding M. septemtaeniata a separate species from M. aurata (Leviton et al., 1992; Rastegar-Pouyani et al., 2008); others mention it as a subspecies of aurata (Khalaf, 1959; Mahdi and George, 1969). This Mabuya (=Trachylepis) is recognized by parietal scales not in contact and having smooth nuchals.

Plate (5): Mabuya aurata septemtaeniata; from North of Basrah province.

The Snakes
Family, Colubridae
1- Natrix tessellata tessellata (Laurenti, 1768) (Pl. 6)
   This polymorphic snake is the most common snake of this area hence there is huge color variation even in the same locality; there, it is spotted with red ventral's others have olive dorsal with white and black ventral's; some are dark gray without spots but all have ventral plates with black margin. This snake is recognized by inverted V shape mark on the back of the head ventral black spots and 19 rows of strongly keeled dorsal scale. There is another species of the same genus Natrix natrix persa recently recorded from Baghdad province (Afrasiab et al., 2012) which differs from N. tessellata in dorsal coloration and having two dorsolateral light lines and in having only one preocular, these snakes are of Palaearctic origin (Leviton et al., 1992).
Annotated Checklist of Reptilian Fauna of Basrah

Plate (6): *Natrix tessellata tessellate*; Right dark phase, left reddish phase, from North of Basrah province.

2- *Dolichophis jugularis* (Linnaeus,1758)

The authors could not collect this snake from Basrah province in the present study, but it was previously recorded by Boulenger (1920a) from this area. Habeeb and Rastegar-Poyani (2016) put Basrah within its distribution. Afrasiab et al. (2016) described *Dolichophis mesopotamicus*, as a new species of the same genus from upper Mesopotamia, so the *Dolichophis* population of Basrah province requires more collection and more taxonomic study.

3- *Spalerosophis diadema cliffordii* (Schlegel,1837)

The snake *S. diadema cliffordii* is one of the three large snakes of Iraq; recently the snake *S. microlepis* was recorded from Iraqi Kurdistan (Afrasiab and Mohamad, 2014). The species of *Spalerosophis* in Basrah have some variation, it looks like the specimen found in collection from Goor, South of Jordan (Lahony et al., 2002). The dorsal scales are with light brown spots, and less number of sub-caudal scales, more specimens are needed for further studies.

This snake is recognized by the presence of an elongated spot on the front of the head and the side of the neck, prefrontal and loreal scales are broken down to several small scales; 27 dorsal scales, supralabial scale does not touch the eyes.

4- *Malpolon monspessulana* (Hermann,1804) (Pl.7)

This large opisthoglyphous snake is with back fang mildly poisonous, adult about more than 150cm in length, its uniform color of dark olive or gray, that differs from northern population of *M. monspessulana insignita* (Geoffroy St. Hilaire,1809) which is spotted laterally and green in color (Afrasiab and Mohamad, 2011); that recognize by convex head, with two loreal scales and 17 dorsal scale rows.

Plate (7): *Malpolon monspessulana*; North of Basrah province.
Family, Elapidae

Walterinnesia morgani (Mocquard, 1905)

It was previously known that the Iraqi hoodless cobra belongs to *W. aegyptia* (Corkill, 1932; Khlaf, 1959), but later Nilson and Rastegar-Pouyane (2005) decided that the Iraqi and the eastern population belong to *W. morgani*. Its juvenile is not uniform black (Pl. 8) from Taq Taq south eastern Erbil. Hence, it is most probably that all of the northern population belong to *W. aegyptia*, while the south and southwest population belong to *W. morgani*. Boulenger (1920a) mentioned it as *Naja morgani* Mooquard. Unfortunately no collection of *W. morgani* was available to authors.

Plate (8): Uniform black juvenile of *Walterinnesia aegyptia*; from Taq Taq south eastern Erbil (Photographed by Dr. Sarbaz Ibrahim Mohamad of Kurdistan Nat. Hist Mus., University of Salahaddin).

Family, Viperidae

Echis carinatus sochureki Stemmler, 1969 (Saw-scaled viper) (Pl. 9)

It is the most dangerous poisonous snake in Iraq because it always found near human settlements; it is common in Thi Qar province but rare in Basrah province (Afrasiab et al., 2012).
Annotated Checklist of Reptilian Fauna of Basrah

Plate (9): *Echis carinatus sochureki*; North of Basrah province.

Turtles
Family, Trionychidae
*Rafetus euphraticus* (Daudin, 1802) (Pl. 10)

Plate (10): *Rafetus euphraticus*; mounted specimen in the exhibition hall of the INHRCM.

Family, Emydidae
*Mauremys caspica caspica* (Gmelin, 1774)

It is a common fresh water turtle in Iraq and found even in the deserts wherever water is found (Afrasiab and Ali, 1989 a); true desert of western Zobair and South Rumaila Habitat, this area is very rich in reptile diversity.

Eighteen reptilian species were recorded and some of them proved to be specific for this habitat, most of lizards and snakes are nocturnal and active at the night or early morning or late evening to avoid sun heat; at the rest of the day time they burrow themselves under loose sand.
The true dessert zone

The lizards

Family, Gekkonidae

1- *Stenodactylus slevini* Haas, 1957 (Pl.11)

Plate (11): *Stenodactylus slevini*; from Rumaila desert western Basrah province (Preserved in INHRCM)

2- *Stenodactylus doriae* (Blanford, 1874)
3- *Bunopus tuberculatus* Blanford, 1874

Family, Agamidae


Plate (12): *Trapelus persicus fieldi*; Rumaila desert, West of Basrah province.
Annotated Checklist of Reptilian Fauna of Basrah

2-Trapelus pallidus haasi (Y. Werner, 1971)

3-Phrynocephalus arabicus Anderson, 1894

Two specimens of P. arabicus in the collection of INHRCM were collected from Basrah province, without naming the exact locality. Al-Barazengy (2015) recorded Phrynocephalus maculates Anderson, 1872 from Samawa district, Muthanna province, the north of the present studied area, these lizards are recognized by the rudimentary ear not clear and lacking pre anal or femoral pores.

4-Uromastyx aegyptius microlepis (Blanford, 1874)

Afrasiab and Ali (1989a) founded dead Urmastyx animals more than the alive ones in Rumaila area because of pollution caused by petroleum industry activities in the area.

Family, Lacertidae

1-Acanthodactylus schmidti Haas, 1957 (Pl. 13). This is one of the beautiful lizards in this area. It is recognized by 3 large supraoculars, the forth is divided into dorsolateral scale larger than mid-dorsal scales 12-16 ventral plates and 32-54 keeled dorsal scale rows.

Plate (13): Acanthodactylus schmidti; Rumaila desert west of Basrah province (from collection of INHRCM)

2-Acanthodactylus scutellatus hardyi Haas, 1957

Family, Scincidae

Scincus scincus Blanford, 1881

Family, Trogonophidae

Diplometopon zarudnyi Nikolsky, 1907. This burrowing limbless lizard is recorded by Afrasiab and Ali (1989a) from Rumaila desert, west of Basrah province. Niazi (1979) described Diplometopon shueaibi a new species from Karbala. Rudayni et al. (2017) discoursed the variation within the Saudi Arabian Trogonophidae and they did not refer it to D. shueaibi Niazi, we believe that D. shueaibi is a valid name for central Arabia and west Karbala of Iraq.
The Snakes
Family, Boidae
*Eryx* (*Pseudogongylophis*) *jayakari* Boulenger, 1888 (Pl.14)
This snake has been recorded from Rumaila desert by Afrasiab and Ali (1989a). It is recognized by position of the eyes visible from above, presence of mental groove 37-51 dorsal scale rows.

**Plate (14):** *Eryx* *jayakari*; Rumaila desert, west of Basrah province. (Preserved in INHRCM)

Family, Colubridae
1-*Malpolon moilensis* (Reuss,1837) (Pl.15)
This snake when feels a danger will raise the anterior part of the body as in cobra; dorsal scales are smooth in 17 rows. Head is convex with two black spots on each side, it is opisthoglyphous.

**Plate (15):** *Malpolon moilensis*; Rumaila desert (Preserved in INHRCM).

2-*Lytorhynchus diadema gaddi* Nikolsky,1907
This snake was recorded from Rumaila desert, west of Basrah province (Afrasiab and Ali, 1989a), it is one of two snakes in genus *Lytorhynchus* recorded so far from Iraq.

The second species is *Lytorhynchus kennedyi* Schmidt from Al-Qa’im district, Al Anbar province (Afrasiab and Ali, 1989b).
Annotated Checklist of Reptilian Fauna of Basrah

3- *Psammophis schokari* (Fosskal, 1775)

**Plate (16):** *Psammophis schokari*; Rumaila west of Basrah province.

**Family, Viperidae**

*Cerastes cerastes gasperettii* Leviton and Anderson, 1967 (Pl.17)

In the same area, this is a poisonous horned viper; some individuals have horns while others without horns; most of the day time it is hidden under the soft sand or bushes.

**Plate (17):** *Cerastes cerastes gasperettii*; From Rumaila desert west Basrah province (Preserved in INHRCM).

**The seashore and Shat Al-Arab zone**

There are few records of sea turtles and sea snakes from these areas, but there is a collection of only two sea snakes, *Enhydrina schistosa* and *Hydrophis cyanocinctus*; and one plaster model of the sea turtle *Dermochelys coriacea schlegelii* in INHRCM with measurements taken from real specimens from Basrah province. Furthermore, in this study only sea turtles and sea snakes, recorded by Mahdi and George (1969) and Leviton *et al.* (1992), that listed here:
Saman R. Afrasiab et al.

Turtles
Family, Cheloniidae
1-Emydochelys imbricate (Linnaeus, 1766)
2-Dermochelys coriacea (Linnaeus, 1766) (Pl.18)
The species above were found in seashore.
3-Rafetus euphraticus (Daudin, 1802)
This species was found in Shat Al-Arab.

Plate (18): Dermochelys coriacea; plaster model in the INHRCM (It is a copy of real one dead in Basrah province).

Sea snakes:
Family, Hydrophiidae
1-Enhydrina schistosa (Daudin, 1803)
2-Hydrophis gracilis (Shaw, 1802)
3-Hydrophis spiralis (Shaw, 1802)
4-H. cyanocinctus (Daudin, 1803)
5-H. ornatus (Gray, 1842)
6-H. lapemoides (Gray, 1849)
7-Pelamis platurus (Linnaeus, 1766)
8-Pelamis curtus (Shaw, 1802)

ACKNOWLEDGEMENTS
The authors wish to thank Dr. Khidher Abbas Al-Kinani, Director of the Marsh Land Division, for providing some photographs. Sincere thanks are due to Mrs. Khalida, laboratory staff of the Iraq Natural History Research Center & Museum, University of Baghdad for her technical help, and also profound thanks to the Basrah Natural History Museum, University of Basrah, Basrah province, and the Kurdistan Natural History Museum, University of Salahaddin, Erbil province for their invaluable help.
Annotated Checklist of Reptilian Fauna of Basrah

LITERATURE CITED


Saman R. Afrasiab et al.


91
Annotated Checklist of Reptilian Fauna of Basrah


قائمة مرجعية للزواحف في محافظة البصرة, جنوب العراق

سامان روستم افراسياب, آزهار احمد الموسوي وهند ضياء هادي
مركز بحوث و متحف التاريخ الطبيعي
جامعة بغداد

تاريخ الاستلام: 30/3/2018
تاريخ القبول: 30/3/2018

الخلاصة
تقع محافظة البصرة في أقصى جنوب العراق وتتمتلك ميزة خاصة في
تنوع الزواحف (العضايا والحيات) وهي تشبه جسر بين ثلاثة مناطق حيوانية
جغرافية عالمية (الشرقية, القطبية القديمة و الأثيوبية), أعطى هذا الموقع
لمحافظة البصرة خصوصية في التنوع الإحيائي ومن بينها الزواحف.

من أجل تسهيل الدراسة قسمت محافظة البصرة إلى أربعة مناطق رئيسة و
هي: المدينة والبساتين, الأهوار والمستنقعات, الصحراء الحقيقية و ساحل
البحر وشط العرب.

استعرضت الدراسة تسجيل 94 نوعاً من الزواحف تتضمن الحيات
وسلالات المياه العذبة و البحرية والعضايا. أعطي الوصف واهم الملاحظات
التصنيفية لبعض الأنواع النادرة معززاً بالصور.