

Chapter 45

A Preliminary Pictorial Guide to the Herpetofauna of Tigris and Euphrates River Basin



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Abstract An extensive review on the taxonomic status, occurrence, geographical distribution, and the IUCN conservation status of 122 species/taxa (10 amphibians and 112 reptiles) belonging to 71 genera (8 genera of amphibians and 63 of reptiles) and to 25 families (5 families of amphibians and 20 families of reptiles) was made. As a part of Iraq's unique biota, the knowledge of the herpetofauna of Iraq is poorly discovered and requires extensive field surveys, further research, and explorations in order to create full frame knowledge of its status and conservation.

45.1 Introduction

As a part of Iraq's unique biota, the knowledge of the herpetofauna of Iraq is poorly discovered and requires extensive field surveys, further research, and explorations. There were contentious attempts from few Iraqi researchers to study the herpetofauna of Iraq; their published notes and observations were significantly contributed to develop the current knowledge on the amphibians and reptiles of Iraq. Some basic specimens collecting have been carried out and checklists of species are available (e.g., Schmidt 1939; Allouse 1955; Khalaf 1959). The Iraqi Biological Research Centre and Museum (nowadays, Iraqi Natural History Research Center and Museum INHM) collected and studied reptiles, and published a monograph on the Gekoniidae of Iraq (Nader and Jawdat 1976); however, the status of many reptiles and amphibian species in Iraq is still poorly known. The recent up-to-date checklist of reptiles and amphibians in Iraq which listed total of 115 species (105 species of reptiles and 10 species of amphibians) belonging to 25 families (20 families of reptiles and five families of amphibians), along with their conservation status in Iraq, was made by Al-Barazengy et al. (2015). This list cited the previous herpetofauna literature in Iraq and neighboring ecoregions such as

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(Garstecki and Amr 2011; Arnold 1986) and herpetofauna published records by the Iraqi Natural History Research Center and Museum.

The herpetofauna of Tigris and Euphrates River basin is unique and diverse. Scott (1995) reported many reptile species from Tharthar Lake in central Iraq including Steppe agama *Agama agilis* (*Trapelus agilis agilis*) and Oliver's Agama *A. ruderata* (*T. ruderatus*), Bosk's Fringe-fingered Lizard *Acanthodactylus boskianus*, Mesopotamian Fringe-toed Lizard *A. grandis*, and several snakes of the genus *Coluber*. The Desert Monitor *Varanus griseus* was present in fairly good numbers in the semi-desert to the east of the lake. The Field's Horned Viper *Pseudocerastes fieldii* has been collected on the shore of the lake. Scott (1995) also reported common reptiles include Steppe Agama, Bosk's Fringe-fingered Lizard, and Mesopotamian Fringe-toed lizard, Desert Monitor, and several snakes of the genus *Coluber* in the surrounding desert of Shari Lake in central Iraq. Scott (1995) also mentioned that there was a shortage of information on the amphibians and reptiles of the Mesopotamian marshes. Maxwell (1957) mentioned that there was an extreme abundance of frogs in the marshes, and concluded that there were several species. Mahdi and George (1969) listed Toad *Bufo viridis*, a Tree Frog *Hyla arborea*, and two frogs *Rana ridibunda* and *R. esculenta* for Iraq. The common reptiles in the marshes include the Caspian Terrapin *Clemmys caspia*, Euphrates Softshell Turtle *Rafetus* (*Trionyx*) *euphraticus*, geckos of the genus *Hemidactylus*, two species of skinks *Mabuya aurata* and *M. vittata*, and a variety of snakes including the Spotted Sand Boa

Eryx jaculus, Tessellated Water Snake *Natrix tessellata* and Gray's Desert Racer *Coluber*.

ventromaculatus. The Desert Monitor was formerly common in desert areas adjacent to the marshes, but seemed to be rare at that time. Moreover, Scott indicated that the Spiny-tailed lizard *Uromastix* sp. was to be abundant around the shores of Razazah Lake in central Iraq.

The Tigris and Euphrates River basin is hosting several taxa of globally threatened reptiles and amphibian species. Of course, amphibians are remarkably reflective of Iraq's climate and geography. Two amphibian species, the Kurdistan Newt *Neurergus microspilotus* and Lake Urmia Newt *Neurergus crocatus*, were listed as Critically Endangered and Vulnerable by the IUCN respectively. Both mountain-dwelling newts are allopatric and have restricted patchy distribution in streams and waterfalls of Zagros Mountain in Iraq and Iran (Najafimajid and Kaya 2010). From 2007 to 2012, Kurdistan newt was discovered at seven new localities, while Lake Urmia Newt was located in four new distributed in Zagros Mountain in northern Iraq. The new locations provide a major extension of both species geographical range. However, severe drought of recent years as well as man-made habitat destruction and pollution has been marked as main threat impacts on both species population in northern Iraq (Al-Sheikhly et al. 2013).

A total of nine globally threatened reptile species (seven turtles; one lizard; one viper) was recorded in Iraq. The Critically Endangered Hawksbill Turtle *Eretmochelys imbricata bissa*; the Endangered Green Turtle *Chelonia mydas* and Euphrates Softshell Turtle; the Vulnerable Loggerhead Sea Turtle *Caretta caretta*, Leatherback Sea Turtle *Dermochelys coriacea schlegelii*, Olive Ridley *Lepidochelys*

olivacea, Spur-thighed tortoise *Testudo graeca ibera*, and Egyptian Spiny-tailed Lizard *Uromastix aegyptia*, and the Near Threatened Caucasus Viper *Montivipera* (*Vipera*) *raddei kurdistanica* were reported from Iraq (Al-Barazengy et al. 2015).

There is scarce information on the occurrence, status, and distribution range of marine turtles in Iraq. In recent years, no dedicated field surveys covering the coastal marine habitats of southern Iraq were conducted. Therefore, up-to-date information on the Iraqi marine herpetofauna is crucially required.

Regarding the Lizard fauna of Iraq, several taxonomic revisions for certain taxa were made. Niazi (1979) considered *Diplometopon shueaibi* as synonym of Zarudnyi's worm lizard *Diplometopon zarudnyi* (Leviton et al. 1992). It was recorded from Rumaila desert by Afrasiab and Ali (1989a). Rudayni et al. (2017) discoursed the variation within the Saudi Arabian Trogonophidae and did not refer it to *D. shueaibi*; however, Afrasiab et al. (2018) considered *D. shueaibi* as a valid name for central Arabia and west Karbala of Iraq. The taxon *Trapelus agnetae* was treated as a synonym of Pale Agama *T. pallidus* until (Disi et al. 1999; Disi and Amr 1998) who assigned it to the subspecies *T. p. haasi*; thus, *T. p. haasi* should be considered a junior synonym of *T. p. agnetae*. Subsequent molecular research found *T. p. pallidus* is synonymous with *T. mutabilis*, while *T. p. agnetae* is related to separate clad (Wagner et al. 2011). However, those authors assigned *T. agnetae* as a full species (Al-Barazengy et al. 2015). Anderson (1999) and Disi (2002) assigned Blandford's Lizard *Trapelus blandfordi* within *T. persicus*, which is now a junior synonym of Oliver's Agama *T. ruderatus* (Rastegar-Pouyani 2000). Moreover, the subspecies *T. ruderatus baluchianus* (Olivier 1804) is now assigned into *Trapelus megalonyx* (Rastegar-Pouyani 2000; Al-Barazengy et al. 2015).

In 2010–2011, during intensive ecological survey in mountains, foothills, desert, semi-deserts, and steppes in north and northwestern Iraq, important records and field observations of amphibians and reptiles were made. These observations and records will significantly contribute to increase the knowledge on the herpetofauna of Iraq (Al-Sheikhly et al. 2013). The Green Toad *Pseudepidalea* (*Bufo*) *viridis*, Long-legged Wood Frog *Rana camerani-macrocnemis*, and Marsh Frog *Rana ridibunda* were found at the muddy banks of Tigris River at Jabal Makhool (Makhool foothills) in northern Iraq. Jabal Makhool seems to be one of the main important sites for reptiles, especially the Lacertidae, where many species have been recorded. The Yellow-headed Rock Agama *Laudakia nupta*, Egyptian Spiny-tailed Lizard, Yellow-belly Gecko *Hemidactylus flaviviridis*, Persian Leaf-toed Gecko *Hemidactylus persicus*, Rough-tailed Gecko *Cyrtopodion scabrum*, Bosk's Fringe-fingered Lizard *Acanthodactylus boskianus*, Arnold's Fringe-fingered Lizard *Acanthodactylus ophiodurus*, Snake-eyed Lizard *Ophisops elegans*, Levant Skink *Trachylepis aurata aurata*, and Desert Monitor were observed. The Endangered Euphrates Soft shell Turtle and Caspian Turtle *Mauremys caspica caspica* were recorded as well. The Dark-headed Dwarf Racer *Pseudocyclophis* (*Eirenis*) *persicus*, Large Whip Snake *Dolichophis* (*Coluber*) *jugularis* Hardwicke's Rat Snake *Coluber ventromaculatus*, Collared Dwarf Snake *Eirenis collaris*, Diademed Sand Snake *Lytorhynchus diadema*, Persian Horned Viper *Pseudocerastes persicus fieldi*, Desert Cobra *Walterinnesia aegyptia*, Dice Water Snake *Natrix tessellate* and Spotted Sand Boa were recorded. In Jabal Himreen (Himreen foothills) in eastern

Iraq, along with western borders of Iran, many reptile species have been observed. The Yellow-headed Rock Agama, Desert agama *Trapelus mutabilis*, Mesopotamian Mastigure *Uromastyx (Saara) loricatus*, Leaf-toed Gecko *Asaccus elisae*, Yellow-belly Gecko, Persian Leaf-toed Gecko, Rough-tailed Gecko, Snake-eyed Lizard, Levant Skink, the Large Whip Snake, Diademed Sand Snake, Schokari Sand Racer *Psammophis schokari*, Hardwicke's Rat Snake, Persian Horned viper, Black Desert Cobra, Dice Water Snake and Spotted Sand Boa were recorded.

In northern Iraq, Zagros Mountain has a unique diversity of herpetofauna. In Pera Magroon Mountain, Green Toad, Common Tree Frog *Hyla savignyi*, and Long-legged Wood Frog were observed in many freshwater streams and marshy ponds distributed in the mountain. Caspian Pond Turtle, Spur-thighed Tortoise *Testudo graeca*, Yellow-headed Rock Agama, Rough-tail Rock Agama *Laudakia stellio*, *Trapelus lessonae*, Turkish Gecko *Hemidactylus turcicus*, Anatolian lizard *Lacerta cappadocica*, Snake-eyed Lizard, Legless lizard *Ophisaurus apodus*, Levant Skink, Large Whip Snake, Collared Dwarf Snake, Persian Horned Viper, Levantine viper *Macrovipera lebetina obtuse*, Montpellier Snake *Malpolon monspessulanus*, and Water Dice Snake were recorded. In Qara Dag Mountain, the Common Tree Frog, Green Toad, Long-legged Wood Frog, Spur-thighed Tortoise, Caspian Pond Turtle, Yellow-headed Rock Agama, Rough-tail Rock Agama, Turkish Gecko, Anatolian Lizard, Snake-eyed lizard, Golden Grass Mabuya *Trachylepis aurata septemtaeniata*, Large Whip Snake, Collared Dwarf Snake, Black Desert Cobra, Persian Horned Viper, Levantine Viper, Montpellier Snake, and Water Dice Snake were recorded.

The survey efforts of Al-Sheikhly et al. (2013) were extended to cover the western bank of Euphrates River in the western plateau of Iraq, where several reptiles and amphibians were recorded. In Faidhatt Al-Massad, to the south of Rutba in extreme western plateau of Iraq (Anbar Province), many terrestrial desert and aridlands reptilian species such as Desert Agama *Trapelus mutabilis*, Brilliant Ground Agama *Trapelus agilis*, Egyptian Spiny-tailed Lizard, Bosk's Fringe-fingered Lizard, Nidua Fringe-fingered Lizard *Acanthodactylus scutellatus*, Giant Fringe-fingered Lizard *Acanthodactylus grandis*, Desert Monitor, Spotted Sand Boa, Black Desert, and Arabian Horned Viper *Cerastes gasperettii* were recorded. In Haditha and Tharthar Lake in western Iraq, Euphrates Softshell Turtle, Caspian Turtle, Bosk's Fringe-fingered lizard, Egyptian Spiny-tailed Lizard, Yellow-belly Gecko, Persian Leaf-toed Gecko, Rough-tailed Gecko, Leaf-toed Gecko, Snake-eyed Lizard, Levant Skink, Desert Monitor, Desert Cobra, Sand Boa, and Dice Water Snake were recorded (Al-Sheikhly et al. 2013).

Two endemic Gekkonidae species are found in Iraq, confined to the mountains of northern Iraqi Kurdistan. The Safin's Mountain Leaf-toed Gecko *Asaccus saffinae*, a cave dwelling species, was discovered in Saffine Mountain in Erbil province in northern Iraq (Afrasiab and Sarbaz 2009). More recently, another gecko species, the Qara Dagh Mountain Gecko (Kurdish Gecko) *Hemidactylus kurdicus*, was discovered in the Mountain of Qara Dagh in Sulymaniyah province in northeastern Iraq (Safaei-Mahroo et al. 2015). More recently, new species of gecko, *Microgecko helenae fasciatus* was recorded near to the Darbandikhan Lake in northeastern Iraq nine globally threatened by Jablonski et al. (2020). However, many areas have never

been explored, especially those extending within the foothills of Zagros Mountain geographical range of northeastern and eastern Iraq. Thus, further investigation to the Gekkonidae fauna of Iraq seems crucial to reveal more new discoveries.

Recently, one species of lizards and four species of snakes were recorded for the first time in Iraq (Al-Barazengy et al. 2015). The occurrence of Striated Lizard *Lacerta strigata* in Iraq was based on three specimens collected by Niazi (1976) from Gelki Islam near the Khapoor River and the road to Kanimase, Zakhaw district, western Kurdistan. In fact that Niazi's records were restricted to the described areas so that this species may have been introduced from the mountains of eastern Turkey by the floods of the Khapoor River (Afrasiab et al. 2013). The Rat Snake *Zamenis hohenackeri* and the Braid Snake *Platyceps ladacensis* were recorded for the first time from Hawraman Mountain in northeastern Iraq by Afrasiab and Sarbaz (2011). The Zabra Snake *Spalerosophis microlepis* was recorded for the first time in Iraq in Serine Mountain northern of Erbil province by (Afrasiab and Mohamad 2014). The Grass Snake *Natrix natrix persa* was recorded for the first time in Iraq from near Dialah Bridge, 10 km east of Baghdad by (Afrasiab and Mohamad 2011; Afrasiab et al. 2012). In 2016, a new species of whip snakes from the genus *Dolechophis* was described by Afrasiab et al. (2016) from upper Mesopotamia and was named *Dolichophis mesopotamicus* sp. nov. However, based on large morphological variations in color patterns in the mentioned genus and the necessity of genetic confirmation for this record, it was not included in the current list. More recently, the elusive Iranian Spider-tailed Horned Viper *Pseudocerastes urarachnoides* endemic to western Iran was recently discovered in several localities in the foothills of Zagros Mountains in eastern Iraq.

The occurrence of the Black-tailed Toed Agama *Phrynocephalus maculatus longicaudatus* has been confirmed in the south-west of Iraq in Muthanna province near of AL-Khuder city and in semi-desert on the side of Sawa lake by Al-Barazengy (2014).

The Desert Hoodless Cobra *Walterinnesia morgani* (Mocquard 1905) was previously assigned to *W. aegyptia* (Corkill 1932; Khalaf 1959), but later Nilson and Rastegar-Pouyani (2005) decided that the Iraqi and the eastern population belong to *W. morgani*. A juvenile specimen was collected from Taq Taq south eastern Erbil in northern Iraq. Afrasiab et al. (2018) indicated that most probably all of the northern population belongs to *W. aegyptia*, while the south and southwest population belong to *W. morgani*.

In 2013–2014, an investigation on the occurrence of geckos in five Iraqi provinces (Babil, DhiQar, AL-Muthana and Basra) situated in central and southern Iraq was conducted by Mohammed et al. (2015). The survey efforts covered different habitats and landscapes where a total of 111 adults and sub-adult specimens was collected and identified. The collected specimens represented six species belonging to three genera which were one Turkish Gecko, two Persian Gecko, 15 Yellow-bellied House Gecko, 53 Rough-tailed Gecko, 16 Iranian Short-fingered Gecko *Stenodactylus affinis*, and 24 Middle Eastern Short-fingered Gecko *Stenodactylus doriae*, the common gecko species recorded in central and southern Iraq.

One of the range-restricted reptiles' species confined to the lakes, rivers, streams, and marshes of Tigris and Euphrates River basin is the Euphrates Softshell Turtle. It

occurs across Iraq, Syria, Turkey, and Iran (Ghaffari et al. 2008), although Iraq is thought to contain the largest number of suitable sites for the species (Fazaa et al. 2015). Stadtlander (1992) reported that in 1989, a total of 26 Euphrates Softshell turtles was recorded in the Tigris River in Turkey and a total of at least 55 individuals was recorded in Euphrates River between Al-Fallujah and Hawr Al-Hammar in Iraq. In 2013–2014, a recent survey was conducted in Central Marshes in southern Iraq by Fazaa et al. (2015) and suggested that a maximum population size of Euphrates Softshell Turtle in the Central Marshes is 212–283 individuals/141,615 ha. However, this number may be underestimated. Moreover, Fazaa et al. (2015) suggested that the starting of breeding season for Iraqi Euphrates softshell turtle population is two months earlier than Iranian and Turkish populations.

In concern for the Hydrophiidae sea snakes, Afrasiab et al. (2018) listed *Enhydrina schistosa* (Daudin 1803), *Hydrophis gracilis* (Shaw 1802), *H. spiralis* (Shaw 1802), *H. cyanocinctus* (Daudin 1803), *H. ornatus* (Gray 1842), *H. lapemoides* (Gray 1849), *Pelamis platurus* (Linnaeus 1766), and *Lapemis curtus* (Shaw 1802) from Al-Basrah seashore without providing further details on the voucher specimens cited, collecting dates, and localities. The occurrence of those species required further investigation; therefore, we only referred to this important remark in this section and did not list those species in the current list.

In addition, the reptilian species, the Euphrates Softshell Turtle, Spur-thighed Tortoise and the amphibian species Kurdistan and Lake Urmia newts were used as non-avian criteria to assess, prioritize, and select Key Biodiversity Areas (KBAs) in Iraq. In the KBA site assessment, the Euphrates Softshell Turtle met vulnerability and irreparability KBA criteria while spur-thighed tortoise met vulnerability KBA criteria. The Euphrates Softshell Turtle was found throughout Iraq in wetlands and rivers of Tigris and Euphrates river basin (Central Marshes, Hammar Marsh, Hawizeh Marsh, Dukan and Derbendikhan lakes, etc.). The spur-thighed tortoise was found in the wooded mountains of northern Iraq such as Qara Dagh and Peramagroon mountains. The Kurdistan and Lake Urmia newts both have met the Vulnerability KBA criteria. Kurdistan Newt was recorded at Ahmad Awa, Hawraman area, and Mawat Area in northern Iraq, while Lake Urmia Newt was recorded in Gara and Garagu mountains, Halgured Mountain, and Sakran Mountain (Nature Iraq 2017). Despite what is mentioned above, the herpetofauna of Iraq is unique and diverse, yet, it requires further attention and intensive investigation in order to create a full frame knowledge of its status and conservation.

45.2 Annotated Checklist of Amphibians and Reptiles of Tigris and Euphrates River Basin

The current checklist is initially based on Al-Barazengy et al. (2015) list of amphibians and reptiles of Iraq. An extensive review on the taxonomic status, occurrence, geographical distribution, and the IUCN conservation status of 122 species/taxa (10 amphibians and 112 reptiles) belonging to 71 genera (eight genera of amphibians

and 63 of reptiles) and to 25 families (five families of amphibians and 20 families of reptiles) was made. Moreover, several taxonomic updates were made in Al-Barazangy's et al. list. In Amphibia section, the Southern Banded Newt *Ommatotriton (Triturus) vittatus*, Iranian Earless Toad *Pseudepidalea (Bufo) surda*, Green Toad *Pseudepidalea (Bufo) viridis*, and Eurasian Marsh Frog *Pelophylax (Rana) ridibundus ridibundus* were updated amphibian genera.

In Reptilia section, the updated genera of the reptiles were starred agama *Stellagama (Laudakia) stellio*, Iraqi Keel-scaled Gecko *Mediodactylus (Carinatogekko) heteropholis*, Blandford's Rough-scaled Gecko *Mediodactylus (Cyrtopodion) heterocercum*, Kotschy's Gecko *Mediodactylus (Cyrtopodion) kotschyi syriacus*, Levant Skink *Trachylepis (Mabuya) aurata aurata*, Levant Skink *Trachylepis (Mabuya) septemtaeniata*, Bridled Mabuya *Trachylepis (Mabuya) vittata*, Iraqi Mastigure *Saara (Uromastix) loricata*, Long-nosed Worm Snake *Myriopholis (Leptotyphlops) macrorhynchus*, Large Whip Snake *Dolichophis (Coluber) jugularis*, Asian Racer *Hemorrhoids (Coluber) nummifer*, Spotted Wipe Snake *Hemorrhoids (Coluber) ravergieri*, Dahl's Whip Snake *Platyceps (Coluber) najadum dahlia*, Common Cliff Racer *Platyceps (Coluber) rhodorhachis*, Rogers' pacer *Platyceps (Coluber) rogersi*, Gray's Desert Racer *Platyceps (Coluber) ventromaculatus*, Hooded Malpolon *Rhagerhis (Malpolon) moilensis*, and Armenian Viper *Montivipera (Vipera) raddei kurdistanica*. The subspecies *Pseudocerastes persicus fieldi* and *P. p. persicus* were separated into full species Field's Horned Viper and Persian Horned Viper respectfully. Recently the species of the Spiny tailed Lizard [Egyptian spiny-tailed lizard *Uromastix egyptia* and *Saara (Uromastix) loricata*] were separated and placed to be under an isolated family Uromastycidae after they were placed under the family Agamidae (Rastegar-Pouyani et al. 2008; Gholamifard et al. 2012).

More recently, a new species of the Desert Monitor Lizard, the Nesterov's Desert Monitor *Varanus nesterovi* sp. nov. was described for the foothills of Zagros Mountains in northeastern Iraq.

In current annotated checklist, races/taxa that taxonomically belong to same species such as Anatolian Rock Lizard *Apathya cappadocica muhtari* and *A. c. urmiana*, Common Sandfish *Scincus scincus conirostris* and *S. s. meccensis*, Javelin Sand Boa *Eryx jaculus familiaris* and *E. j. jaculus*, and Common Leaf-nosed Snake *Lytorhynchus diadema gaddi* and *L. d. kennedyi* were considered as races of one independent species. The European Glass Lizard *Pseudopus apodus* was recorded from several localities in northern Iraq, but it somehow was overlooked in Al-Barazangy et al. (2015), and it was added to the current checklist. The scientific nomenclature and taxonomic review of the listed species were based on the International Union for Conservation of Nature (IUCN n.d.), Reptile database (www.reptile-database.org), and on the *Amphibian Species of the World: An Online Reference* (Frost 2019).

A. AMPHIBIA: 10 Species/Taxa (8 Genera; 5 Families)

Common name	Scientific name	Distribution in Iraq	IUCN Status	
A. AMPHIBIA: 10 species/taxa (8 Genera; 5 Families)				
Family: Salamandridae				
1	Mountain Newt, Azerbaijan Newt, Lake Urmia Newt	<i>Neurergus crocatus</i> (Cope, 1862)	Mountain streams, waterfalls, and creeks of northern Iraq	VU (Fig. 45.1)
2	Kurdistan Newt	<i>Neurergus microspilotus</i> (Nesterov, 1916)	Mountain streams, waterfalls, and creeks of north and northeastern Iraq	CR (Fig. 45.2)
3	Common Fire Salamander, Fire Salamander	<i>Salamandra salamandra semenovi</i> (Nesterov, 1916)	Mountain streams, waterfalls, and creeks of northern Iraq. However, the current global distribution map showed that this species is restricted to central and western Europe	LC
4	Southern Banded Newt, Banded Newt, Striped Eft	<i>Ommatotriton (Triturus) vittatus</i> (Gray, 1835)	Mountain streams, waterfalls, and creeks of northern Iraq	LC
Family: Bufonidae				
5	Iranian Earless Toad, Iranian Toad, Pakistan Toad	<i>Pseudepidalea (Bufo) surdus</i> (Boulenger, 1891)	River banks, seasonal pools, foothills of eastern Iraq	LC
6	Green Toad	<i>Pseudepidalea (Bufo) viridis</i> (Laurenti, 1768); Synonym: <i>Bufotes viridis</i>	Distribution range in uncertain, possibly in wetlands of northern Iraq	DD (Figs. 45.3 and 45.4)
Family: Hylidae				
7	Middle East Tree Frog	<i>Hyla savignyi</i> (Audouin, 1829)	River banks, marshlands, and vegetated ponds in northern and central Iraq. Recorded from Hawizeh marsh in southern Iraq.	LC (Fig. 45.5)
Family: Pelobatidae				
8	Eastern Spadefoot, Syrian Spadefoot	<i>Pelobates syriacus</i> (Boettger, 1889)	Current status is uncertain, possibly in wetlands of northern and northwestern Iraq	LC
Family: Ranidae				
9	Caucasus frog, Iranian Long-legged Wood frog	<i>Rana macrocnemis</i> ; Synonym : <i>Rana camerani</i> (Boulenger, 1886)	River banks and tributaries, marshy ponds, mountain creeks, seasonal pools throughout Iraq.	LC
10	Eurasian Marsh Frog	<i>Pelophylax (Rana) ridibundus</i> (Pallas, 1771)	River banks and tributaries, marshy ponds, mountain creeks, seasonal pools throughout Iraq.	LC (Fig. 45.6)

(continued)



Fig. 45.1 The Vulnerable Lake Urmia Newt *Neurergus crocatus* in freshwater streams of Zagros Mountain in northern Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.2 The Critically Endangered Kurdistan Newt *Neurergus microspilotus* in freshwater streams of Zagros Mountain in northern Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.3 Adult Green Toad *Pseudepidalea (Bufo) viridis* in Tigris River bank in Salahadin Province in Northern Iraq. Photo Courtesy Omar F. Al-Sheikhly

Fig. 45.4 Adult Green Toad *Pseudepidalea (Bufo) viridis* in Tigris River in Al-Alam Area-Salahadin Province in Northern Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.5 Middle East Tree Frog *Hyla savignyi* in Forests of Qara Daqh Mountain in Northern Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.6 Eurasian Marsh Frog *Pelophylax (Rana) ridibundus ridibundus* in a mountain stream of PeraMagroon Mountain in Northern Iraq. Photo Courtesy Omar F. Al-Sheikhly



Common name	Scientific name	Distribution in Iraq	IUCN Status	
B. REPTILIA: 112 species/taxa (63 Genera; 20 Families)				
Family: Cheloniidae (Sea Turtles)				
1	Loggerhead Sea Turtle	<i>Caretta caretta</i> (Linnaeus, 1758)	Marine shores of Al-Fao peninsula at the head of the Arabian Gulf	VU
2	Green Turtle	<i>Chelonia mydas</i> (Linnaeus, 1758)	Marine shores of Al-Fao peninsula at the head of the Arabian Gulf	EN
3	Hawksbill Turtle sub-species	<i>Eretmochelys imbricata bissa</i> (Rüppell, 1835)	Marine shores of Al-Fao peninsula at the head of the Arabian Gulf	CR
4	Olive Ridley	<i>Lepidochelys olivacea</i> (Eschscholtz, 1829)	Marine shores of Al-Fao peninsula at the head of the Arabian Gulf	VU
Family: Dermochelyidae (Sea Turtles)				
5	Leather back Sea Turtle sub-species	<i>Dermochelys coriacea schlegelii</i> (Garman, 1884)	Marine shores of Al-Fao peninsula at the head of the Arabian Gulf	VU
Family: Emydidae (Freshwater Turtles)				
6	Caspian Pond Turtle, Strip-necked Terrapin	<i>Mauremys caspica caspica</i> (Gmelin, 1774)	Rivers , tributaries, ponds, marshlands, and lakes throughout Iraq	NE (Fig. 45.7)
7	Caspian Pond Turtle, Strip-necked Terrapin	<i>Mauremys caspica siebenrocki</i> (Wischuf and Fritz, 1997)	Rivers , tributaries, ponds, marshlands, and lakes throughout Iraq	NE
Family: Testudinidae (Tortoises)				
8	Spur-thighed Tortoise, Common Tortoise	<i>Testudo graeca iberica</i> Pallas, 1814	Forested mountains in northern Iraq	VU (Fig. 45.8)
Family: Trionychidae (Softshell Turtles)				
9	Euphrates Softshell Turtle	<i>Rafetus euphraticus</i> (Daudin, 1801)	Rivers, tributaries, ponds, marshlands, and lakes throughout Iraq	EN (Fig. 45.9)
Family: Amphisbaenidae (Worm Lizards)				
10	Anatolian Worm Lizard, Turkish Worm Lizard	<i>Blanus strauchi aporus</i> (Werner 1898)	Mountains, foothills, and steppes of northern Iraq. Current distribution range in Iraq is unknown.	LC
11	Zarudnyi's Worm Lizard	<i>Diplometopon zarudnyi</i> (Nikolsky, 1907)	Steeps, grasslands, and aridlands with scarce vegetation in southern Iraq	LC

(continued)

Common name	Scientific name	Distribution in Iraq	IUCN Status	
Family: Agamidae (Agama Lizards)				
12	Large scaled-rock Agama	<i>Laudakia nupta nupta</i> (De Filippi, 1843)	Mountains with rocky slopes and foothills of northern and eastern Iraq	NE (Fig. 45.10)
13	Starred Agama, Roughtail Rock Agama	<i>Stellagama (Laudakia) stellio</i> (Linnaeus, 1758)	Rocky mountains, woods and forests, foothills of northern and northwestern Iraq	LC (Fig. 45.11)
14	Black tailed Toed Agama, Spotted Toad-headed Agama	<i>Phrynocephalus maculatus longicaudatus</i> (Haas, 1957)	Steeps, aridlands, semi deserts, and wadies of western and southwestern Iraq	NE
15	Brilliant Agama, Steppe Agama	<i>Trapelus agilis agilis</i> (Olivier, 1807)	Steeps, aridlands, semi deserts, and wadies of northern, western and southeastern Iraq	NE (Fig. 45.12)
16	Pale Agama	<i>Trapelus pallidus haasi</i> (Y. werner, 1971)	Steeps, aridlands, semi deserts, and wadies of northern, western and southern Iraq	NE (Figs. 45.13 and 45.14)
17	Persian Agama (Field's Agama)	<i>Trapelus persicus fieldi</i> (Haas and Werner, 1969)	Steeps, aridlands, semi deserts, and wadies of northern, western and southern Iraq	LC
18	Horny-scaled Agama, Oliver's Agama, Anderson's Agama, Baluch Ground Agama, Persia Agama	<i>Trapelus ruderatus</i> (Olivier, 1804)	Steeps, aridlands, semi deserts, and wadies of western and southern Iraq	LC
Family: Gekkonidae (Geckos)				
19	Werner's leaf-toed Gecko	<i>Asaccus elisae</i> (Werner, 1895)	Rocky mountains, orchids, cultivated grounds, scrublands, shrublands, ruins and aridlands of northern and southeastern Iraq	LC (Fig. 45.15)
20	Grey spotted leaf-toed gecko, Gray-marked Gecko	<i>Asaccus griseonotus</i> (Dixon and Anderson, 1973)	Mountain foothills, orchids, cultivated grounds, scrublands, shrublands, ruins and aridlands of northeastern and southeastern Iraq	LC
21	Safin's Mountain Leaf-toed Gecko	<i>Asaccus saffinae</i> (Afrasiab and Mohamed, 2009)	Endemic. Current distribution range is unknown. Restricted to Safin Mountain in Northern Iraq	NE

(continued)

Common name	Scientific name	Distribution in Iraq	IUCN Status
22 Baluch Rock Gecko, Arabian Desert Gecko, Southern Tuberculated Gecko	<i>Bunopus tuberculatus</i> (Blanford, 1874)	Mountain foothills, orchids, cultivated grounds, scrublands, shrublands, aridlands, and ruins of central and southeastern Iraq	LC
23 Keeled Rock Gecko, Rough-tailed Gecko, Rough thin-toed Gecko, Rough Bent-toed Gecko	<i>Cyrtopodion scabrum</i> (Heyden, 1827)	Wide distribution range; human settlements, cultivated areas, ruins, and in any suitable habitats throughout Iraq	LC (Fig. 45.16)
24 Iraqui eyelid gecko	<i>Eublepharis angramainyu</i> (Anderson and Leviton, 1966)	Restricted range to the mountain steppes and foothills of northern Iraq. New localities were recently discovered in eastern Iraq	DD (Fig. 45.17)
25 Yellow-bellied House Gecko, Northern House Gecko	<i>Hemidactylus flaviviridis</i> (Rüppell, 1835)	Human settlements, cultivated areas, and ruins in central and southern Iraq	NE (Fig. 45.18)
26 Persian Gecko, Persia Leaf-toed Gecko	<i>Hemidactylus persicus</i> (Anderson, 1872)	Human settlements, cultivated areas, cliffs, and ruins in central and southern Iraq, probably in northern Iraq	NE (Fig. 45.19)
27 Mediterranean Gecko, Turkish Gecko, Turkish Warty Gecko	<i>Hemidactylus turcicus</i> (Linnaeus, 1758)	The current distribution status is unknown. Rocky mountains, cliffs, foothills, human settlements, and steeps in northern and north-western Iraq.	LC
28 QaraDagh Mountain Gecko (Kurdish Gecko)	<i>Hemidactylus kurdicus</i> (Safaei-Mahroo, Ghaffari, Ghafoor and Amini 2017)	Endemic. Current distribution range is unknown. Restricted to Qara Daqh Mountain in northeastern Iraq	NE
29 Iraqui keel-scaled gecko, Iraqui Gecko	<i>Mediodactylus (Carinatogekko) heteropholis</i> (Minton, Anderson and Anderson, 1970)	Status uncertain. Probably restricted to the wooded mountain in northern Iraq	DD
30 Blandford's Rough scaled Gecko, Asia minor thin-toed Gecko	<i>Mediodactylus (Cyrtopodion) heterocercum mardinensis</i> (Mertens, 1924)	Status uncertain. Probably restricted to the wooded mountain in northern Iraq	NE

(continued)

Common name		Scientific name	Distribution in Iraq	IUCN Status
31	Kotschy's Gecko	<i>Mediodactylus (Cyrtopodion) kotschyi syriacus</i> (Stepanek, 1937)	The current distribution status is unknown. Probably confined to the steppes, rocky areas, and shrublands in northeastern Iraq	LC
32	Common fan-footed Gecko, Yellow Fan-fingered Gecko, Hasselquist's Fan-footed Gecko	<i>Ptyodactylus hasselquistii</i> (Donndorff, 1798)	The current distribution status is unknown. Confined to the steppes, rocky areas, and shrublands in northern and eastern Iraq	NE
33	Levante Fan-Fingered Gecko	<i>Ptyodactylus puiseuxi</i> (Boutan, 1893)	The current distribution status is unknown. Rocky areas, aridlands, and shrublands in northwestern Iraq	NE
34	Murray's Comb-fingered Gecko, Iranian Short-fingered Gecko	<i>Stenodactylus affinis</i> (Murray, 1884)	Marshlands, aridlands and semi desert areas in southeastern Iraq	LC
35	Doriae's comb-fingered Gecko, Middle Eastern Short-fingered Gecko, Sand Gecko	<i>Stenodactylus doriae</i> (Blanford, 1874)	Aridlands and deserts and semi desert areas in central and southern Iraq	LC
36	Stout Gecko, Jordan Short-fingered Gecko	<i>Stenodactylus grandiceps</i> (Haas, 1957)	Aridlands and shrublands, in northwestern and western Iraq	LC
37	Slevin's Short-fingered Gecko, Slevin's Sand Gecko	<i>Stenodactylus slevini</i> (Haas, 1957)	Aridlands and deserts in western and southern Iraq	LC
38	Dwarf Gecko	<i>Microgecko helenae fasciatus</i> (Schmidtler and Schmidtler 1972)	Rocky mountains, woods and forests, foothills of northeastern Iraq	DD
Family: Lacertidae (Fringe-toed Lizards and Lizards)				
39	Bosc's Fringe-toed Lizard, Bosc's Fringe-fingered Lizard	<i>Acanthodactylus boskianus</i> (Daudin, 1802)	Aridlands, deserts and semi desert, and wadies in western and southern Iraq	NE (Fig. 45.20)
40	Mesopotamian Fringe-toed lizard, Giant Fringe-toed lizard	<i>Acanthodactylus grandis</i> (Boulenger, 1909)	Aridlands, deserts and semi desert, and wadies in western and southern Iraq	LC (Fig. 45.21)
41	Arnold's fringe-fingered lizard, Snake-tailed Fringe-toed Lizard	<i>Acanthodactylus ophodurus</i> (Arnold, 1980)	Deserts and semi desert, shrublands, and on terrestrial edge of the marshlands in southern Iraq	LC (Fig. 45.22)

(continued)

Common name		Scientific name	Distribution in Iraq	IUCN Status
42	Syrian Fringe-fingered Lizard	<i>Acanthodactylus orientalis</i> (Angel, 1936)	Grasslands, aridlands, deserts and semi deserts, fields with scarce vegetation, and wadies in central and western Iraq	LC
43	Robust Fringe-fingered Lizard	<i>Acanthodactylus robustus</i> (Werner, 1929)	Shrublands, aridlands, desert and semi deserts in western Iraq	LC
44	Schmidt's Fringe-toed lizard	<i>Acanthodactylus schmidti</i> (Haas, 1957)	Aridlands, desert, and semi deserts in southern Iraq	LC
45	Nidua Fringe-fingered lizard, Hardy's Fringe-fingered Lizard	<i>Acanthodactylus scutellatus hardyi</i> (Haas, 1957)	Aridlands, desert, and semi deserts in western and southern Iraq	NE (Fig. 45.23)
46	Anatolian Rock Lizard	<i>Apathya cappadocica muhtari</i> (Eiselt 1979)	Wooded mountains, rocky slopes, forests, and cliffs in northern Iraq	LC (Fig. 45.24)
47	Anatolian Rock Lizard (Lake Uremia Rock Lizard)	<i>Apathya cappadocica urmiana</i> (Lantz and Suchow 1934)	Status uncertain. Wooded mountains, rocky slopes, forests, and cliffs in northern Iraq	LC
48	Aralo-Caspian Racerunner	<i>Eremias persica</i> (Blanford, 1875)	Status uncertain. wooded mountains and foothills of northern and northeastern Iraq	NE
49	Three-line Lizard, Giant Green lizard	<i>Lacerta media media</i> (Lantz and Cyrén, 1920)	Wooded mountains, rocky slopes, and cliffs in northern Iraq; probably occurs in foothills of eastern Iraq	LC
50	Caspian Green Lizard, Striated Lizard	<i>Lacerta strigata</i> (Eichwald, 1831)	Occurrence is uncertain; three specimens were collected from northern Iraq which probably introduced by floods. Probably inhabit wooded mountains, rocky slopes, forests, and cliffs in northern Iraq	LC
51	Blanford's short-nosed Desert Lizard	<i>Mesalina brevirostris</i> (Blanford, 1874)	Current distribution is unknown. Steppes, grasslands, aridlands, desert and semi desert in southern Iraq. Probably occurs in western Iraq	LC (Fig. 45.25)

(continued)

Common name		Scientific name	Distribution in Iraq	IUCN Status
52	Small-spotted Lizard	<i>Mesalina guttulata</i> (Lichtenstein, 1823)	Status uncertain, Aridlands, desert, and semi deserts in western and southern Iraq	NE
53	Olivier's Sand Lizard	<i>Mesalina olivieri</i> (Audouin, 1829)	Deserts and semi deserts in southern Iraq	NE
54	Snake-eyed Lizard	<i>Ophisops elegans</i> (Ménétriés, 1832)	Wooded mountains, rocky slopes, forests, and cliffs in northern Iraq; probably occurs in eastern Iraq	NE (Fig. 45.26)
55	Zagrosian Lizard, Siirt Lizard	<i>Timon princeps kurdistanicus</i> (Suchow, 1936)	Wooded mountains, rocky slopes, and cliffs in northern and north- eastern Iraq	LC (Fig. 45.27)
Family: Anguidae (Legless Lizard Lizards)				
56	European Class Lizard, European Legless Lizard	<i>Pseudopus apodus</i> (Pallas, 1775)	Wooded mountains, forests, and rocky cliffs in northern Iraq	NE (Fig. 45.28)
Family: Scincidae (Skinks)				
57	Juniper Skink, Euro- pean Snake-eyed Skink	<i>Ablepharus kitaibelii kitaibelii</i> (Bibron and Bory, 1833)	Status uncertain; required further assess- ment. Probably in wooded mountains northern Iraq	LC
58	Asian Snake-eyed Skink	<i>Ablepharus pannonicus</i> (Fitzinger, 1824)	Steppes, aridlands, and foothills in central, eastern, and southern Iraq. see (Afrasiab and Ali, 1989a)	NE
59	Ocellated skink	<i>Chalcides ocellatus</i> (Forsskål, 1775)	Steppes, aridlands, shrublands, and foot- hills in western, eastern, and southern Iraq	NE
60	Schneider's Skink	<i>Eumeces schneideri princeps</i> (Eichwld, 1839)	Current distribution is unknown. Steppes, aridlands, shrublands, and foothills in western, eastern, and southern Iraq	NE
61	Common Sandfish	<i>Scincus scincus conirostris</i> (Blanford, 1881)	Desert and semi desert of southern and south- western Iraq	NE
62	Common Sandfish	<i>Scincus scincus meccensis</i> (Wiegmann, 1837)	Desert and semi desert of southern and south- western Iraq	NE
63	Levant Skink	<i>Trachylepis (Mabuya) aurata</i> (Linnaeus, 1758)	Wooded mountains, orchids, cultivated fields, forests, and foot- hills, and human settle- ments in northern, central, and southern Iraq	NE

(continued)

Common name		Scientific name	Distribution in Iraq	IUCN Status
64	Levant Skink	<i>Trachylepis (Mabuya) septemtaeniata</i> (Reuss, 1834)	Mountains, foothills, forests, cliffs, shrublands in northern, central, and southern Iraq; probably occurs in eastern Iraq	NE (Fig. 45.29)
65	Bridled Mabuya, Bridled Skink	<i>Trachylepis (Mabuya) vittata</i> (Olivier, 1804); <i>Heremites vittatus</i>	Wooded mountains, rocky slopes, forests, and cliffs in northern, central, and southern Iraq; probably occurs in eastern Iraq	LC
Family: Uromastycidae (Spiny-tailed Lizards)				
66	Egyptian Spiny-tailed Lizard	<i>Uromastyx aegyptia</i> (Forskål, 1775)	Desert and semi deserts, aridlands, grasslands, foothills, and marshland edges in central and southern Iraq	VU (Fig. 45.30)
67	Mesopotamian Spiny-tailed Lizard, Small Spiny tailed Lizard, Iraqi Mastigure, Iraqi Spiny-tailed Lizard	<i>Saara (Uromastix) loricata</i> (Blanford, 1874)	Steppes, foothills, shrublands, and aridlands of central and southeastern Iraq	LC (Figs. 45.31 and 45.32)
Family: Varanida (Monitors)				
68	Desert Monitor	<i>Varanus griseus griseus</i> (Daudin, 1803)	Desert and semi deserts, aridlands, grasslands, foothills, and marshland edges in northern, western, and southeastern Iraq	NE
69	Nesterov's Desert Monitor	<i>Varanus nesterovi</i>	Wooded mountains, rocky slopes and cliffs in northern Iraq; probably occurs in eastern Iraq	NE
Family: Leptotyphlopidae (Worm Snakes)				
70	Long-nosed Worm Snake, Hooked Thread Snake	<i>Myriopholis (Leptotyphlops) macrorhynchus</i> (Jan, 1860)	Shrublands, aridlands, steppes, foothills of central and southern Iraq	LC
Family: Typhlopidae (Blind Snakes)				
71	Brahminy Blind Snake, Flowerpot Snake	<i>Ramphotyphlops braminus</i> (Daudin, 1803)	Aridlands, grasslands, and cultivated fields of central and southern Iraq. see (Afrasiab and Ali 1996)	NE
72	Blind Snake Species	<i>Typhlops vermicularis</i> (Merrem, 1820)	Aridlands, grasslands, and cultivated fields of central and southern Iraq	NE

(continued)

Common name	Scientific name	Distribution in Iraq	IUCN Status	
Family: Boidae (Boas)				
73	Javelin Sand Boa	<i>Eryx jaculus familiaris</i> (Eichwald, 1831)	Desert and semi deserts, shrublands, and aridlands of central and southern Iraq	NE
74	Javelin Sand Boa	<i>Eryx jaculus jaculus</i> (Linnaeus, 1758)	Desert and semi deserts, shrublands, and aridlands of central and southern Iraq	NE
75	Saudi Arabian Sand Boa, Arabian Sand Boa	<i>Eryx jayakari</i> Boulenger, 1888	Desert and semi deserts, shrublands, and aridlands of southern Iraq	LC
Family: Colubridae (Snakes)				
76	Large Whip Snake	<i>Dolichophis (Coluber) jugularis</i> (Linnaeus, 1758)	Rocky foothills, Steppes, orchids, aridlands, shrublands, and deserts of northern, central, and southern Iraq. <i>Dolichophis</i> population of southern Iraq requires more collection and more taxonomic study	LC
77	Collared Dwarf Snake	<i>Eirenis collaris</i> (Ménétriés, 1832)	Mountain foothills of northeastern Iraq	LC
78	Crowned Dwarf Snake	<i>Eirenis coronella coronella</i> (Schlegel, 1837)	Desert and semi deserts, shrublands, and aridlands of western and southern Iraq	LC
79	Sinai Dwarf Snake	<i>Eirenis coronelloides</i> (Sivan and Werner, 2003)	Mountain foothills, shrublands, and steppes of northern and central Iraq	LC
80	Narrow-striped Dwarf Snake	<i>Eirenis decemlineata</i> (Duméril, Bibron and Duméril, 1854)	Steppes, grasslands, shrublands of northern and northwestern Iraq	LC
81	Striped Dwarf Snake	<i>Eirenis lineomaculata</i> (Schmidt, 1939)	Status uncertain. Steppes, grasslands, shrublands of northern and northwestern Iraq	LC
82	Dark-headed Dwarf Racer	<i>Eirenis persicus</i> (Anderson, 1872)	Rocky foothills, steppes, shrublands in central and eastern Iraq	NE
83	Asian Racer, Coin-Marked Snake	<i>Hemorrhois (Coluber) nummifer</i> (Reuss, 1834)	Mountains, rocky cliffs, forests, steppes, and grasslands of northern Iraq	NE
84	Spotted Wipe Snake	<i>Hemorrhois (Coluber) ravergieri</i> (Ménétriés, 1832)	Mountains, rocky cliffs, forests, steppes, and grasslands of northern and northwestern Iraq	NE

(continued)

Common name		Scientific name	Distribution in Iraq	IUCN Status
85	Common Leaf-nosed Snake	<i>Lytorhynchus diadema gaddi</i> (Nikolsky, 1907)	Desert and semi deserts, shrublands, foothills, orchids, cultivated fields, marshlands edges, and aridlands of central and southern Iraq. <i>Spalerosophis diadema cliffordii</i> was reported from southern Iraq by (Afrasiab et al. 2018)	LC
86	Common Leaf-nosed Snake	<i>Lytorhynchus diadema kennedyi</i> (K. Schmidt, 1939)	Desert and semi deserts, shrublands, foothills, orchids, cultivated fields, marshlands edges, and aridlands of western and southern Iraq. See (Afrasiab and Ali, 1989b)	LC
87	Montpellier Snake	<i>Malpolon monspessulanus insignitus</i> (Geoffroy St-Hilaire, 1809)	Mountains, rocky hills, steppes, grasslands, orchids, cultivated fields, forests, and aridlands in northern, central, and southern Iraq	LC (Fig. 45.33)
88	Tessellated water snake,	<i>Natrix tessellata tessellata</i> (Laurenti, 1768)	Wetlands throughout Iraq	LC
89	Grass Snake	<i>Natrix natrix persa</i> (Pallas 1814)	Wetlands in central and eastern Iraq; probably has wider distribution range	LC
90	Braid Snake, Jan's Cliff Racer	<i>Platyceps ladacensis</i> (Perry, 2012)	Recorded from Hawraman Mountain in northeastern Iraq	NE
91	Dahl's Whip Snake	<i>Platyceps (Coluber) najadum dahlui</i> (Fitzinger 1826)	Mountain foothills, shrublands, and steppes of northern, central, and southeastern Iraq	LC
92	Common Cliff Racer, Wadi Racer, Desert Racer	<i>Platyceps (Coluber) rhodorhachis</i> (Jan, 1865)	Deserts and semi deserts, shrublands, rocky areas, steeps, and grasslands of western and southern Iraq	NE
93	Rogers' Racer	<i>Platyceps (Coluber) rogersi</i> (Anderson, 1893)	Shrublands, rocky areas, steeps, and grasslands of western and southern Iraq	LC

(continued)

Common name		Scientific name	Distribution in Iraq	IUCN Status
94	Gray's Desert Racer, Hardwicke's Rat Snake, Glossy-bellied Racer	<i>Platyceps (Coluber) ventromaculatus</i> (Gray, 1834)	Shrublands, rocky areas, steeps, desert and semi-deserts, and grasslands of central and southern Iraq	NE
95	Hooded Malpolon, Moila Snake, False Cobra	<i>Rhagerhis (Malpolon) moilensis</i> (Reuss, 1834)	Mountains, rocky hills, steppes, grasslands, orchids, cultivated fields, forests, and aridlands in northern, central, and southern Iraq	NE
96	Schokari Sand racer, Afro-Asian Sand Snake, Forskal Sand Racer	<i>Psammodphis schokari</i> (Forsskål, 1775)	Desert and semi deserts, steppes, aridlands, shrublands, cultivated fields, and marshland edges in central and southern Iraq	NE
97	Black-Headed Rhynchocalamus	<i>Rhynchocalamus melanocephalus satuni</i> (Nikolsky, 1899)	Mountains, rocky slopes, cliffs, grasslands, and steppes in northern Iraq	LC
98	Diadem snake	<i>Spalerosophis diadema cliffordii</i> (Schlegel, 1837)	Grasslands, desert and semi-deserts, shrublands, cultivated fields, human settlements, rural gardens, and marshland edges in central and southern Iraq.	NE
99	Zebra Snake	<i>Spalerosophis microlepis</i> (Jan, 1865)	Mountain, foothills, shrublands, and aridlands of eastern Iraq	LC
100	Black Headed Snake	<i>Telescopus nigriceps</i> (Ahl, 1924)	Steppes, rocky wadies, and aridlands of western Iraq	LC
101	Soosan Tiger Snake	<i>Telescopus tessellatus martini</i> (Schmidt, 1939)	Mountains, rocky slopes, cliffs, grasslands, foothills, and steppes in northern, eastern, and southern Iraq	LC
102	Caucasian Rat Snake, Transcaucasian Rat Snake	<i>Zamenis hohenackeri</i> (Strauch, 1873)	Mountains, rocky slopes, and cliffs in northeastern Iraq	LC
Family: Elapidae (Desert Cobras)				
103	Desert Cobra, Desert Black Snake	<i>Walterinnesia aegyptia</i> (Lataste, 1887)	Current distribution is unknown, desert and semi deserts, shrublands, grasslands in northern and western Iraq	LC

(continued)

Common name	Scientific name	Distribution in Iraq	IUCN Status	
Family: Viperidae (Vipers)				
104	Arabian Horned Viper	<i>Cerastes gasperettii</i> (Leviton and Anderson, 1967)	Desert and semi desert, shrublands, aridlands of western and southern Iraq	LC (Fig. 45.34)
105	Saw-scaled Viper	<i>Echis carinatus sochureki</i> (Stemmler, 1969)	Desert and semi deserts, aridland, shrublands, scrublands, and on the edges of the marshlands in central and southern Iraq	NE
106	Armenian Viper, Caucasus Viper	<i>Montivipera (Vipera) raddei kurdistanica</i> (Nilson and Andren, 1986)	Wooded mountains and rocky cliffs in northern Iraq	NT
107	Blunt-nosed Viper	<i>Macrovipera lebetina obtuse</i> (Dwigubsky, 1832)	Rocky foothills, Steppes, orchids, aridlands, shrublands, and deserts of northern and central Iraq	LC
108	Field's Horned Viper	<i>Pseudocerastes fieldi</i> (Schmidt, 1930)	Rocky foothills, aridlands, shrublands, and deserts of north-western and western Iraq	LC
109	Persian Horned Viper	<i>Pseudocerastes persicus</i> (Duméril, Bibron and Duméril, 1854)	Wooded mountains, rocky cliffs, and forests of northern Iraq; possibly occurs in the foothills of eastern Iraq	LC
110	Iranian Spider-tailed Horned Viper	<i>Pseudocerastes urarachnoides</i> (Bostanchi, S. Anderson, Kami and Papenfuss, 2006)	Rocky foothills of eastern Iraq	DD (Fig. 45.35)
Family: Hydrophiidae (Sea Snakes)				
111	Hook-nosed sea snake, Beaked Sea Snake	<i>Enhydrina schistosa</i> (Daudin, 1803)	Marine waters of Al-Fao peninsula at the head of the Arabian Gulf	LC
112	Slender sea snake, Graceful Small Headed Sea snake	<i>Hydrophis gracilis</i> (Shaw, 1802)	Marine waters of Al-Fao peninsula at the head of the Arabian Gulf	LC

CR critically endangered, EN endangered, VU vulnerable, NT near threatened, LC least concern, DD data deficient, NE not evaluated

Fig. 45.7 Adult Caspian Pond Turtle *Mauremys caspica caspica* in Tigris River tributary in PeraMagroon Mountain in Northern Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.8 The Vulnerable Spur-thighed Tortoise *Testudo graeca iberica* in wooded slope of Qara Dagh Mountain in Northern Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.9 Adult female Euphrates Softshell Turtle *Rafetus (Trionyx) euphraticus* laying eggs on the banks of Central Marshes in Southern Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.10 Adult Large Scaled-rock Agama *Laudakia nupta nupta* in Jabal Himreen foothills in Northeastern Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.11 Adult Starred Agama *Stellagama (Laudakia) stellio* in a rocky cliff of PearMagroon Mountain in Northern Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.12 Adult Steppe Agama *Trapelus agilis agilis* in the desert of ThiQar Province in Southwestern Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.13 Pale Agama *Trapelus pallidus* in rocky desert on Al-Anbar Province in Western Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.14 Adult Pale Agama *Trapelus pallidus* in Jabel Himreen foothills in Northeastern Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.15 Adult Werner's Leaf-toed Gecko *Asaccus elisae* in Himreen Foothills in Northeastern Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.16 Adult gravid female Rough-tailed Gecko *Cyrtopodion scabrum* in human settlements of Al-Alam Area in Salahadin Province in Northern Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.17 Adult male Iraqi Eyelid Gecko *Eublepharis angramainyu* in the grasslands of Hirmeen Foothills in Diyala Province in Eastern Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.18 Adult male Yellow-bellied House Gecko *Hemidactylus flaviviridis* in a human settlement in Baghdad Province in Central Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.19 Adult Persian Gecko *Hemidactylus persicus* in a human settlement in Baghdad Province in Central Iraq. Photo Courtesy Omar F. Al-Sheikhly

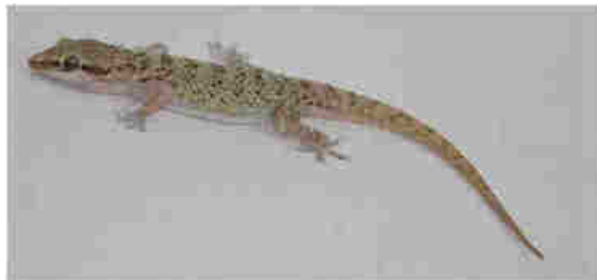


Fig. 45.20 Adult Bosc's Fringe-toed Lizard *Acanthodactylus boskianus* in shrublands of Jabel Makhool foothill in Salahadin Province in northern Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.21 Adult Mesopotamian Fringe-toed Lizard *Acanthodactylus grandis* in the desert of Faidhatt Al Massad in Anbar Province in Western desert of Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.22 Adult Arnold's Fringe-fingered Lizard *Acanthodactylus opheodurus* in the aridlands of Wadi Al-Rodha in Western Desert of Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.23 Adult Nidua Fringe-fingered Lizard *Acanthodactylus scutellatus* in semi-desert areas of Rutba in Western Desert of Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.24 Adult Anatolian Rock Lizard *Apathya cappadocica* in rocky cliffs of Tabeen Village in Pera Magroon Mountain in Northern Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.25 Adult Small-spotted *Mesalina guttulata* in the desert of Rutba near Faidhatt Al Massad in Anbar Province in Western Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.26 Adult male Snake-eyed Lizard *Ophisops elegans* in Rocky cliffs of Peramagroon Mountain in Northern Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.27 Zagrosian Lizard *Timon princeps kurdistanicus* in the wooded slopes of Zagros Mountain in Benjween Area in Northeastern Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.28 Adult European Class Lizard *Pseudopus apodus* in wooded rocky slopes of Tabeen Village in PeraMagroon Mountain in Northern Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.29 Adult Levant Skink *Trachylepis (Mabuya) septemtaeniata* in scarce vegetated steppe near Kahn Baghdadi of Haditha in Anbar Province in Western Desert of Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.30 Adult male Vulnerable Egyptian Spiny-tailed Lizard *Uromastyx aegyptius* in the western desert of Anbar Province in Western Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.31 Adult breeding male Mesopotamian Mastigure *Uromastyx (Saara) loricatus* in Himreen Foothills in Northeastern Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.32 The Mesopotamian Mastigure *Uromastyx (Saara) loricatus* in Al-Sidir Area in Salahadin Province in Northern Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.33 Adult Montpellier Snake *Malpolon monspessulanus* in grasslands of Qara Dag Mountain in Northern Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.34 Hornless morph of the Arabian Horned Viper *Cerastes gasperettii*, a desert dwelling species recorded from the western and southwestern deserts of Iraq. The Iranian Spider-tailed Viper *Pseudocerastes urarachnoides* in Zurbatia Foothills in eastern Iraq. Photo Courtesy Omar F. Al-Sheikhly



Fig. 45.35 The Iranian Spider-tailed Viper *Pseudocerastes urarachnoides* in Zurbatia Foothills in eastern Iraq. Photo Courtesy Omar F. Al-Sheikhly



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